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Modern Economic Problems

Modern Economic Problems

by MYRON H. UMBREIT, PH.D.

Professor of Business Economics and Director
Chicago Division, School of Commerce
Northwestern University

ELGIN F. HUNT, M.A.

Coordinator of the Social Sciences, Chicago City
Junior College; Lecturer in Economics
Northwestern University

CHARLES V. KINTER, PH.D.

Business Economist
Lecturer in Economics, Northwestern University

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MODERN ECONOMIC PROBLEMS

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To
Grace, Agnete, and Lucile

Preface

"Modern Economic Problems" represents many years of experimentation with classes in beginning economics. It is intended for use in combination with a textbook on principles of economics, or for use by students who have already studied principles for one semester. Its purpose is to aid students in applying economic principles to the solution of our major economic problems. Throughout the book the assumption is made that these problems can best be solved within the framework of a free-enterprise economy.

We have adopted an approach to the study of economic problems which should materially aid the student. First, in each chapter to which this procedure could be applied, we have stated the nature of the problem (or problems) to be dealt with. Second, we have assembled and presented factual information relating to each problem. Third, we have surveyed and analyzed possible solutions. Finally, we have called special attention to those proposed solutions which, in our judgment, offer the greatest promise of meeting the problem under discussion.

Much of the material presented in this book has been used for several years in the economic problems course on the Chicago Campus of Northwestern University. All those who have taught this course have made suggestions which have aided us in many ways. We desire especially to mention John Reinboth, who worked with us at every stage in the development of this book. He contributed most freely of his time, and his suggestions have been of great value. For this assistance, we are most grateful. We also wish to thank Dean Homer Vanderblue, who allowed us freedom to conduct the courses in economics as we saw fit. Dean Vanderblue placed the facilities of the Chicago Division of the School of Commerce at our disposal, and the aid we have received has been a major factor in promoting this venture.

Our typist, Mrs. Elmo Scott Watson, also deserves our special thanks. Mrs. Watson's ability to detect errors and her willingness to work long

hours to complete the manuscript made a significant contribution to our progress. We also appreciate the aid of our wives, who in many ways have made the writing of this book easier.

Perhaps our greatest debt is to our students. They have frequently made suggestions, and many of them have expressed keen interest in our progress. They were especially interested in the questions and problems which we included at the end of each chapter. We wish to thank them for their aid, and we hope that other students will find the book both interesting and useful.

We hope that the many instructors who are using our earlier text, "Fundamentals of Economics," in the first semester course, will find "Modern Economic Problems" the most satisfactory book with which to follow it in the second semester. The two books are companion volumes. However, we believe that "Modern Economic Problems" can be used successfully in combination with any standard text in principles.

Though every chapter in this book has been rewritten several times, we recognize that there is still room for improvement. We shall appreciate constructive suggestions that may aid us when the time comes for revision. Meanwhile, we accept full responsibility for any limitations or errors that our readers may discover.

THE AUTHORS

CHICAGO, ILL.
March, 1950

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PART ONE

Introduction

Part One introduces the student to the study of economic problems. It deals, first, with the nature of such problems and possible ways of attacking them. Second, it deals with certain basic factors which largely determine the character of our economy, and which must be taken into account in any attempt to solve economic problems. These factors are the economic activities of governments; the size, nature, and rate of growth of the population; and the available supply of natural resources. Third, Part One deals with certain economic magnitudes or measures. It is by means of these magnitudes that we are able to measure the extent of economic maladjustments, and also the success or failure of attempts to remedy such maladjustments.

1. Economic Problems and Their Solution

Economists agree that most individuals and social groups are interested in fulfilling two basic economic desires. First, they wish to improve their economic status. Second, they desire to attain a reasonable degree of economic security. Over the years, much progress has been made in satisfying both of these desires. In fact, some of our more optimistic forecasters insist that we are on the verge of attaining both.

The following statement is an excellent example of this point of view. "The major conclusion of the Twentieth Century Fund's survey of America's needs and resources is that we have reached a point where we can provide everyone with a decent living, and more people with a living which, by any standards other than our own, is positively luxurious." [1]

The authors point out, however, that such results cannot be fully achieved unless certain basic problems are solved. These problems relate to such matters as population, the labor force, unemployment, productivity, taxes and investment, housing, agriculture, public works, social security, and industrial capacity. We see, therefore, that while it appears possible to attain the objectives mentioned, many problems must be solved before our goals will have been achieved.

A less optimistic point of view is expressed by other economists who fear that the desire for economic security has become so compelling that the "clock of progress" may be impaired if not stopped altogether. Those who fear this result are concerned with the question of how to retain individual freedom and at the same time guarantee economic security.

[1] Synopsis by McGraw-Hill Department of Economics of the Twentieth Century Fund's book, "America's Needs and Resources."

Some believe that the attainment of a high degree of economic security is possible only at the expense of individual freedom and economic progress.[2] Others say that security is not incompatible with both freedom and progress.

The foregoing points of view clearly indicate that those who insist that economic security is one of the foremost problems of our time are, nevertheless, concerned lest the attainment of this goal bring other problems in its wake. In the main most economists assert that, unless economic progress can be made, the attainment of economic security will only mean sharing what we now have. This is clearly not enough. We must look forward to higher standards of living than those we now enjoy.

Any study of modern economic problems must consider this basic issue. That is why we shall attempt to determine what methods and means can be employed to attain both progress and security. Our problem is, *How can we increase our standard of living by making economic progress and at the same time attain a reasonable degree of security?*

The quest for economic security. Since one of our major problems is the attainment of economic security, we shall first consider the nature of this issue.

It is too often assumed that the quest for economic security is a product only of our own time. This is hardly correct, for from earliest times individuals and nations have sought security in most of their activities. For example, the threat of uncertainty in early times caused tribes and nations to adopt rituals and customs, and even to enact laws, to protect them from this evil. It early became the practice to call upon the gods for aid whenever disaster threatened. The gods were asked to produce rain, to protect crops from destructive insects or from the weather, and even to make the soil fertile to ensure good crops. If floods or droughts or insects came and crops were threatened, it was assumed that the gods had been offended and that these scourges had been sent as punishment. In such cases, it became the duty of medicine men, priests, or witch doctors to appease the gods by punishing those who were responsible. Lest someone unwittingly or deliberately offend the gods and thus bring their wrath upon the tribe, strict rules and regu-

[2] WRIGHT, DAVID MCCORD, "Democracy and Progress," The Macmillan Company, New York, 1948.

lations were imposed on all. Thus by restricting the freedom of individuals it was hoped that the tribe might enjoy greater security.

However, history records that, largely because of the restrictions imposed, few new methods to improve the economic status of the tribe were introduced. Such restrictions also led to the belief that the individual had no power to control his destiny. Since the belief prevailed that individuals were helpless to increase their standards of living by making economic progress, the plane of living remained near starvation levels most of the time.

The practice of regulating the actions of individuals in the hope that whatever economic security had been achieved could be maintained was not limited to primitive tribes only. History is replete with examples showing how change has been resisted at every point in the advance of civilization. Whatever was new or different has always been viewed with alarm, and in many cases rules and regulations have been imposed primarily to maintain the *status quo*. Space does not permit us to illustrate this fact in every field of man's activity, but its truth can be demonstrated by citing only a few examples in the field of economics. Feudalism, the guild system, and mercantilism are examples of efforts to retain a certain form of economic organization through rigid rules and regulations. A study of such systems reveals clearly that attempts to enforce the *status quo* at the expense of progress led to stagnation and to the defeat of the very purpose for which regulations were imposed. The lessons of history are clear. Our world is ever changing, and in such a world customs, habits, and methods must change; otherwise our system becomes static and progress ceases.

These lessons of history have significance in our own times when so much stress is being placed upon the attainment of economic security. We must ask ourselves whether economic security should be sought by imposing rigid rules and regulations, or whether it is better to leave individuals free in order to encourage the initiative which leads to greater production and makes possible ever higher standards of living.

It will be observed that we have here two divergent and perhaps conflicting theories relative to how economic security can be attained. One group insists that we need conscious controls and regulations to prevent too many changes in our system. Those opposed to this theory maintain that progress and change provide their own security, and that in fact it is only through progress that security for the group as a whole can be

achieved. According to this theory, controls should be instituted only when their primary purpose is to open the channels of trade so that production may be increased. Any regulations which prevent the economy from functioning at its greatest efficiency, they maintain, will result ultimately in a lower standard of living and an actual loss of economic security.

Flexibility and progress. Before certain other questions are discussed, the relation of security to progress must be examined. We have indicated that some economists believe it is difficult to make progress and achieve security at the same time. Let us now consider the assumptions upon which such a conclusion is based.

In the United States we point with pride to the progress which has been made. Under our system of free enterprise we emphasize the need for individual responsibility and initiative, competition, and freedom to enter any occupation and to manufacture any good. Adherence to these principles has, over the years, increased our planes of living greatly, but our people have at times been beset with serious problems. Depressions have appeared with an astounding degree of regularity, and this has been a very disturbing factor. In fact, it is the recurrence of depressions after periods of great activity which has caused many to assume that progress and security are incompatible. If, therefore, we are to have greater economic security and yet continue to make progress, we must discover the conditions which are consistent with both.

In the past we have assumed that a free-enterprise economy can operate efficiently only under the following conditions:

1. The economic system must remain flexible; the factors of production must be able to adjust themselves to changing conditions.

2. In the main, adjustments must take place automatically, that is, with only a minimum amount of conscious control.

3. Whatever controls are necessary should be imposed primarily for one of two purposes. They should be designed either to preserve and restore flexibility or to bring about, through government action, adjustments similar to those which would take place automatically in a highly flexible or competitive economy. To a large extent, the flexibility of an economy depends on the degree to which competition prevails.

But why is it desirable that an economy should be flexible? Economists in the past, at least, were much concerned with the question of establishing an equilibrium. They asserted that material well-being is maximized

when all of the factors of production are in equilibrium. An equilibrium condition prevails when a price that clears the market is established. Then the quantities of any good or service offered for sale are just equal to the quantities demanded. Price also is of major importance in allocating the factors of production among competing uses. Hence if the factors respond quickly to changes, each factor will be employed in that field in which its use is the most significant. Each factor will be used in the most efficient manner. It follows, therefore, that if all factors of production are flexible enough to flow quickly to their most significant uses, there will be little chance for under- or overproduction for any considerable period. Moreover, equilibrium will be restored if it is disturbed. Whenever the factors of production stand at once in such relationship to each other that each is employed in its most productive use, we have a condition of equilibrium. However, it is not always recognized that there are many forces in our complex modern world which prevent the factors from rapidly adjusting themselves to changing conditions.

The economists of an earlier period did not assume that the condition which they called equilibrium required enforcing a *status quo*. The maintenance of equilibrium meant constant adjustments as conditions change. Further, they believed that the more readily the adjustments could occur, the more quickly the factors of production would adapt themselves to changing conditions and the sooner a new equilibrium would be established. In other words, they believed that the system, while ever changing, tends always to regain its stability, and in the process to maximize material well-being. They felt that progress is made as a result of this constant process of change and adjustment.

In a highly flexible system like that just described there would be less need to consider the problem of economic security. With the exception of those incapacitated by age or disease, every member of society who was willing to work could be assured of a livelihood. This would be true because in a highly flexible system each factor would be mobile and would, therefore, always be fully employed.

Though flexibility may be very desirable, we must recognize that there are many elements of rigidity in our economy and that some of these would be extremely difficult to eliminate. For example, when the demand for labor drops and employment declines, wage rates do not readily follow suit. If they did, a new equilibrium wage rate might be quickly

reached at a lower level and unemployment might disappear. Because wage rates are resistant to decline, unemployment is likely to persist and even increase once there is a substantial drop in the demand for labor. To prevent depression and large-scale unemployment from developing, the government may take compensatory measures. It may, for example, reestablish the demand for labor by spending large sums on a public-works program.

Economic security and employment. We have used the term economic security but as yet we have not defined this term directly. However, we have pointed to the conditions which lead to economic security. We have discovered that any factor of production that is flexible will tend to be used in the most efficient manner and will be fully employed. As long as factors of production are fully employed, those who control them are assured an income. *Economic security may be defined as that condition in which an individual faces the future with reasonable assurance that he can maintain his income and his present plane of living.* Of course the individual hopes to increase his plane of living, but if he has reasonable assurance that he can at least maintain his present plane he has economic security.

Often the term economic security is considered to be synonymous with the term social security; that is, freedom from want so far as minimum economic needs are concerned. For example, if those in the lowest income groups are protected against total loss of income because of seasonal unemployment, sickness, accident, or old age, they have social security. Such a program, however, does not give a nation economic security, for the great bulk of our citizens wish to secure and maintain an economic status far above this level. Economic security, therefore, can only be achieved and maintained when the economy functions in such a manner that every factor of production can, if it desires, secure employment.

It should be noted that to achieve security an individual must accept certain responsibilities. Otherwise he will lose his position and in consequence his economic security. For example, suppose a man is elected to the presidency of a certain company because of his hard work and shrewd judgment. Is his position guaranteed to him simply because of his past efforts? Certainly not. He must continue to exercise the same qualities which caused him to be chosen for the position or else lose out.

A reasonable amount of security in every phase of life can come only to those who are alert and who live up to their obligations.

Economic progress. In our survey to this point we have frequently used the term *economic progress.* This term is also often misunderstood. Everyone agrees that progress implies that the quantity of goods available for man's use is increasing; but too often, the assumption is made that this increase must be at a relatively constant rate. Our economy, however, does not operate smoothly. As Professor Schumpeter puts it: "Industrial change is never harmonious advance." He further states that our economy "not only proceeds by jerks and rushes but also by one-sided rushes." Professor Davis in his comments on this statement adds: "And in the wake of these jerks and rushes, he (Schumpeter) might have written, come many painful adjustments on the part of all those who are associated with the production process." [3]

While all writers seem to agree that economic progress means increasing the per capita quantities of goods available, some insist that progress is made only when the goods produced are more widely shared. However, the wider distribution of goods might not, in itself, result in improving the status of all groups in the economy. For example, suppose our population were to increase faster than production. Under such a condition a wider distribution of goods might accompany falling standards of living. One economist, after noting that progress means "moving forward," defines economic progress as "moving forward toward increased production accompanied by a better quality of goods; by a decrease in relative expenditure of life, labor, and national resources necessary to produce them; and by an ever wider distribution of the resulting wealth." [4]

This definition is rather involved, yet it includes all of the factors that must be taken into account when the term economic progress is used. As Professor Davis puts it, "Research about conditions of economic progress should center on those conditions which make for (a) increasing productive efficiency, (b) relatively rapid re-employment, and (c) balanced distribution and use of income." [5]

[3] DAVIS, H. S., "The Industrial Study of Economic Progress," University of Pennsylvania Press, Philadelphia, 1947, p. 1.

[4] AYRES, C. E., "The Theory of Economic Progress," University of North Carolina Press, Chapel Hill, 1944, p. 248.

[5] DAVIS, *op. cit.*, p. 12.

It can be seen that the use of the term economic progress implies not only greater production, but more efficient production, so that there will be a clear saving in men and capital per unit produced. It is further implied that the increased goods will be distributed in such a manner that all groups will benefit.

Standards and planes of living. The discussion of economic security indicates that security is more likely to be attained when the economic status of each individual or group is constantly rising. We commonly say that it cannot be expected that all people under all circumstances will attain a similar plane of living. Climate, soil, natural aptitude, the extent of mechanization, all affect the welfare of a people. We see, therefore, that the attainment of economic security for one individual or group may be more difficult than for another individual or group.

We commonly refer to the economic status of individuals or groups in terms of standards or planes of living. A standard of living may be defined as "the quantities and qualities of food, clothing, shelter, and various services which an individual, family, or group considers necessary to happiness." [6] In other words, according to this definition, a standard of living is an ideal toward which individuals are striving. For example, at one period in a man's life he may believe that if he can reach a position at which he has an income of $5,000 a year, he will have attained his objective. Once having attained this goal, however, he will raise his sights and not be satisfied until he has reached a higher goal. People tend to seek standards of living above those actually attained, and this causes them to make constant attempts to improve their economic status.

In contrast with the standards of living which people seek to achieve, we have the planes of living which they actually maintain. A plane of living is "that amount of income which an individual or family actually does consume. A plane of living is essentially those things to which we are accustomed." [7]

A plane of living may vary widely from the actual standard that individuals would like to attain. In some instances a plane of living may even be much below the minimum requirements of decency and

[6] PATTERSON, S. H., and KARL W. H. SCHOLZ, "Economic Problems of Modern Life," McGraw-Hill Book Company, Inc., New York, 1948, p. 579.

[7] *Ibid.*, p. 579.

comfort, while a standard of living could hardly go that low. Rising standards of living stimulate the desires of individuals to raise their planes of living. *Economic security* means protecting existing planes of living. *Economic progress,* however, means constantly raising planes of living toward the standards of living that individuals would like to enjoy.

Objectives restated. Our discussion to this point has been concerned with the various factors which must be taken into account if we wish to attain the objectives set forth. We have noted that under ideal conditions it would be possible, provided individuals and nations understood the problem and assumed the necessary responsibilities, to achieve the purpose of increasing our planes of living and at the same time attaining a reasonable degree of security. In practice, however, it is difficult to achieve this result. We must therefore ask ourselves: *What measures and policies may, under actual conditions, contribute to an ever-increasing plane of living, and at the same time assure individuals a reasonable degree of security?*

This objective has been well stated by the Committee for Economic Development (commonly called the CED).[8] This committee, in setting forth its objectives, states:

> There are two key economic problems to be faced in the United States today. First, the maintenance of the dynamic, progressive character of the economy which has raised productivity so dramatically decade after decade for the past hundred years or more. Second, the achievement of greater stability in production and employment. . . , the reduction in the boom-bust characteristics of the economy, and also the avoidance of chronic depression and mass unemployment.[9]

It is clear that the objectives which are to serve as a basis for our study make it necessary to come to grips with many pressing problems that confront our nation. It is not sufficient simply to survey these problems and to call attention to the difficulties which they present. We cannot play the role of disinterested observers. Rather we must seek to find real solutions. This means that all proposals must be carefully examined

[8] The CED is a privately financed research organization which has as its objective "to promote sound thinking about our current and long-range critical economic problems" so that constructive action can be taken.

[9] CED Research Objectives as stated by the Committee's director of research, Theodore O. Yntema.

and those must be selected which are most likely to achieve the desired objectives.

Complexity of economic problems. In considering economic problems, one other factor must be kept in mind. Because economic problems are very complex, all of their many aspects cannot be considered simultaneously. To do so often confuses the issue and leads to unsound conclusions. Our procedure, therefore, will be to isolate the main issues which surround each problem under consideration, and then seek to determine probable solutions for the difficulties which are found.

In this study the merits of each solution will be considered separately, and care will be taken to avoid recommendations that conflict with one another. However, in our analysis we will also work on the theory that the solution of any one problem affects the solution of others. Hence this factor will be taken into account. Furthermore, we recognize the fact that there are certain problems which present only temporary difficulties and which may solve themselves when present conditions change. Finally, if it is believed that a problem will not solve itself, it may be necessary to present several possible solutions. This does not mean that we must do "anything and everything." Sometimes the wrong "solution" will do infinite harm to a system that is as complicated as ours.

Steps in analyzing a problem. In seeking solutions for our problems we will employ the following procedure: (1) State the problem as clearly as possible. (2) Assemble and present general data to gain an understanding of the nature of the problem. (3) Survey and analyze possible solutions. (4) Select the solutions most likely to be satisfactory.

In considering each solution the following question should be asked: To what extent will the solution which has been proposed solve the difficulty which is being considered? To answer this question we must necessarily raise others: (*a*) Will the proposal aid in stabilizing the economy or will it bring new difficulties in its wake? (*b*) Will the solution permit sufficient flexibility in the system to provide for needed changes or will it tend to establish a rigid and static condition? (*c*) Will the proposal aid in raising the national standard of living or will it simply shift benefits to one group at the expense of some other group? It should be understood that the best solution may not be a simple one. It may involve employing various complementary policies.

We cannot hope, within the limits of a single volume, to analyze each problem in such detail that every phase will be considered. In fact, we

can hope to present only a broad outline of the nature and causes of the more pressing problems that confront us, and to discuss a few of the proposals that have been advanced to correct or mitigate the difficulties found. However, even such a limited study should acquaint the reader with some of the problems which must be solved, and should give him an appreciation of the difficulties which will be encountered when conscious attempts are made to create a progressive, stable economy in which individuals can raise their planes of living and at the same time feel secure in their economic position.

Even though the path is a difficult one, we should not be discouraged. Progress may be slow, yet the attainment of the goal is worthy of our best attempts. There is reason to believe that we are making progress, both in raising our planes of living and in achieving a greater degree of economic security.

Problems to be discussed. We may well ask ourselves, What are the foremost economic problems which are of vital concern to our nation and, in fact, to the entire world? In answering this question we must recognize that many of our present difficulties have arisen as a direct result of World War II and the fear of another war. Wars are always disrupting influences and create many economic problems; they unbalance so many economic relationships that a large part of the postwar effort must be devoted to the reestablishment of peacetime economic patterns. Unless and until the basic problem of how to prevent war is solved, only limited progress toward economic security can be made. Thus, the solution of the problems which could lead to another major war would greatly simplify our task. However, many of these problems are not economic, and their solution transcends the scope of our survey. Nevertheless, in our discussion we must never forget that war is the source of many of our most troublesome problems.

A second problem also has certain noneconomic aspects. This problem relates to the nature and functions of the governments under which economic problems must be solved. A number of economic problems are so difficult that some deem it necessary to disrupt the existing political pattern in order to solve them. However, radical action is not generally desirable, for in most cases such action fails to achieve its purpose and only creates new problems. While we must recognize the necessity of making changes, every attempt should be made to solve our problems within the framework of our present political system. We shall make the

basic assumption that all of our problems can be solved under a democratic system of government and without abandoning private enterprise. We agree with the following statement of the Committee for Economic Development:

> We in the C.E.D. believe in a free competitive capitalistic system. We are opposed to any measures which are a threat to its continued existence. We recognize that there is need for voluntary joint action, but when such action is undertaken either by government or private groups, the one most important test of that action should be whether it contributes to the stature of our people as members of a free society. . . . We are convinced that this economy of ours can achieve a combination of progressively higher living standards, relative stability, and freedom of choice which will make it by far the most desirable type of economy in the world.[10]

We must realize that the kind of government that prevails, and the attitude of those in power toward economic questions, will largely determine the type of problems that will receive attention and also the kinds of remedies that will be proposed. Therefore, we must clearly understand the nature and functions of the government under which our problems must be solved.

A third basic general problem concerns population growth in relation to natural resources. Since World War II there has been a marked rise in the rate of population increase. In this country, by the end of 1947, population already was larger than some experts had earlier estimated it would be by 1955. Moreover, this increase is all the more significant because it comes after a period when our population seemed to be approaching a static condition. For many years the rate of population growth in this country had decreased steadily, and many experts had come to the conclusion that we had almost reached our peak; at least if there was to be more growth, it would be at an ever-decreasing rate. The sudden spurt in numbers during the postwar years has upset these calculations. Students of population do not yet know whether the present rate of increase is a temporary condition only or whether it represents a long-run trend. In any case the possible economic effects of a rapidly increasing population must be given careful study.

The three basic problems just stated are of vital concern to all students

[10] CED, "Freedom Has Its Price."

of economic activity. To at least two of them we must give some detailed attention. These are (1) the nature and functions of government, and (2) population growth.

However, before dealing further with the two problems just mentioned we must give some attention to certain problems which are more narrowly economic in their nature. If we hope to attain a reasonable degree of security while at the same time making progress, no economic problem is more vital than that of controlling the business cycle. Business cycles have been disturbing factors in our system, yet they have helped to provide the element of flexibility which has spelled progress. Our problem is to stabilize business cycles sufficiently to avoid the great losses and hardships caused by cyclical fluctuations, without at the same time interfering with economic progress.

Our study of the business cycle will reveal that many proposals have been made for its control, and that some of these are so significant as to merit special consideration. We shall find that some economists believe that a reasonable degree of stability can be attained merely by preventing monopoly and enforcing free and fair competition. Others, under some circumstances, favor direct price controls. There is, however, no agreement as to the proper price-control methods to use. Therefore, it will be necessary to study the effect of such direct price-control methods as are used in dealing with the public utilities and as have been imposed in times of war. Some economists place special emphasis on the need for world trade in order to secure stability. Others see the need for financial agreements between nations. Others, again, believe that the business cycle can be controlled by regulating money and credit. Finally, still others believe that policies of taxation and public expenditure can be employed as controls to produce the desired results.

In addition to the business cycle we must consider various problems which, while related to the cycle, have other important implications. For example, the problem of economic inequality must be studied because inequality is a source of social unrest, and also because many relationships will be upset if the pattern of inequality changes. Further, certain problems which affect special groups must be analyzed. Thus labor presents a special problem, and the proper place of labor in the economy must be clearly determined as a first step in seeking a solution. Closely related to the labor problem is the question of social security. Then, too, the difficulties of the farmer must not be forgotten, partly because

agriculture is one of the important industries which suffer from economic instability.

When these problems have been surveyed, we can raise a broader question, namely, Do we need more economic planning? If so, who should do this planning, and what kind of planning should it be?

Mere mention of the issues that must be considered if progress and stability are to be secured reveals how far-reaching must be the programs which seek to solve these problems.

Social point of view. Students of principles of economics usually point out that all economic activity should result in increasing the welfare of society as a whole and not just the welfare of certain individuals or special-interest groups at the expense of the rest of society. On the other hand, promoting the welfare of particular individuals at times contributes to the general welfare. In other cases, however, individual welfare may have to be disregarded in the interests of society as a whole. For example, in the interest of the welfare of society, it may sometimes be necessary to isolate an individual and, in the case of diseases such as leprosy, to force him to live apart from his fellows. Here the interests of society must come before those of the individual. However, suppose that medical men desire to find a cure for this disease. Under these conditions the community may be asked for funds to carry on medical research, and individual victims of the disease may even be encouraged to enter hospitals at state expense. This action is taken because it is considered that if the cause of the disease is found, not only will the individual be benefited, but also society. Thus, at times in the promotion of the welfare of society it may be necessary to restrict or even injure individuals; under other circumstances promotion of individual welfare may contribute to the general welfare.

While the object is the promotion of the general welfare, the attainment of that object may not always cause society to act in the same way. Given a desirable goal, it may be possible to attain that goal in a variety of ways. In some cases, it may even be a matter of indifference which of several methods is chosen. The important thing is to see clearly the nature of the problem and then to discover measures which will bring about its solution and thus contribute to the general welfare.

Are we making progress? The emphasis which has been placed upon the problem side of our economic life may tend to obscure the fact that constant progress is being made in raising the level of social welfare.

While it is true that many problems confront us, the progress that has already been made justifies a feeling of optimism as we face the future.

Let us examine briefly some of the evidence to discover how much economic progress actually has taken place in this country. The Committee on Public Debt Policy points to the following facts. *Real* income per capita (which, in the last analysis, best shows our plane of living) rose from $216 in 1799 to about $928 in 1946. Moreover, the leisure of the average citizen has increased, for the work week has declined from 64 hours in 1849 to about 40 at the present time. Education has increased. Investment in capital equipment per worker has increased. It rose from approximately $1,020 in 1849 to about $5,860 in 1942. Output per man-hour of labor increased 263 per cent from 1909 to 1939, while real weekly earnings rose from $16.00 in 1849 to $42.63 by 1939.[11]

The extent of our economic progress is emphasized also by Professor Sumner H. Slichter in a *Christian Science Monitor* article on productivity. He points out that between 1840 and 1940 output per man-hour increased roughly sixfold and hourly dollar earnings eightfold. Since the price level in 1940 was about the same as it was in 1840, the increase in hourly earnings meant an increase in real wages. He further points out that, in spite of the fact that the amount of capital employed per worker increased about three times between 1880 and 1940, nevertheless on each of these dates the proportion of the national income going to property was about the same. Professor Slichter concludes from his studies that "virtually all the gains of technological progress have gone to the large part of the population represented by workers."

But one need not resort to data to discover how different our economic life is today from what it was a century ago. The humblest citizen in this country today enjoys comforts and conveniences which were beyond the reach of kings in the past. Life has been greatly enriched by increases in the variety and amount of available goods. Even a catastrophe like war has contributed to economic progress by enlarging the number of goods available for man's use. Hence, there is every reason to expect more progress in the future.

It is clear that the increase in national wealth and income caused by an increase in the physical volume of production has made it possible

[11] Committee on Public Debt Policy, "Our National Debt and Our Savings," National Debt Series No. 5, pp. 1–3.

for the average citizen to enjoy more goods with less relative effort. Thus it has been possible to reduce hours of labor while at the same time increasing our plane of living. Such progress can be expected to continue. In fact, if the rate of progress is maintained, sufficient goods will be available so that those in the lower income groups will be able to enjoy more and more of the benefits which have already accrued to many of their fellow citizens. It is not too much to hope that such progress will lead to the virtual abolition of extreme poverty. Thus, it is clear that economic progress is promoting the general welfare.

What is the nature of the failures which confront us? Though most people admit that we are making economic progress, some believe that this progress is too slow and too costly. They contend that we should be able to attain our objectives in a shorter period of time and with less effort. The first failure of our present system to which they call attention is one which we have already discussed, namely, the inability of the system to maintain stability in production and employment.

A second criticism of our present economy is that too large a portion of our productive capacity is devoted to the manufacture of goods which do not contribute to the general welfare. The issue here is, What is meant by the expression, "contributing to the general welfare"? Does it mean producing things which are "good" for people? Generally, those who make this criticism are thinking of what people *ought* to desire, not of what they actually *do* desire. On this basis it may be argued that liquor, tobacco, chewing gum, or even cosmetics, not to mention such luxuries as yachts and mink coats, should not be considered "desirable" goods. Often it is implied that their manufacture should be abolished, and that the men and materials thus freed should be devoted to the production of desirable goods.

It is clear, however, that the moment we attempt to analyze our common problems we are forced back to basic human values. The real question is: Shall individuals be allowed to produce and consume the kinds of goods they desire, or shall they be required to produce and consume only those things which are "good" for them? This of course raises the question, Who shall determine when a good is desirable or undesirable? Presumably this task would be reserved for our most enlightened thinkers. Unfortunately, however, so far as the authors know, no standards have been set to determine when one becomes a "most enlightened thinker." One of our greatest human values is freedom, and it is very

important for free men to choose the goods and services which they desire.

A third criticism of our economy relates to the consumption of goods. It is maintained that, under the present system, the consumer is not in a position to judge the quality of goods he consumes and, therefore, cannot use his income in the most effective manner. The consumer cannot hope to be an expert in judging goods when he is confronted with hundreds of different items which apparently are alike but which, upon further examination, will be found to be very different. The consumer cannot rely upon advertising to aid him in making intelligent choices for, in the main, the purpose of advertising is to proclaim only the best qualities of a good. Nor can he depend upon the merchant, for merchants are interested in selling. Hence, without standards the consumer cannot hope to exercise any effective control in determining the best kinds or qualities of goods to purchase.

A fourth criticism also relates to the consumption of goods. It is maintained that individuals often fail to act in a rational manner in spending their incomes. Custom, habit, the desire to fit into the environment in which one finds himself, catering to changes in style, and the like tend to distort individual choices when income is to be spent. Also, the desire to impress one's friends and neighbors—called "conspicuous consumption"—seriously affects the individual in spending his income wisely. For example, it is pointed out that individuals purchase homes in restricted neighborhoods and pay much more for them than their income warrants; they entertain in night clubs and hotels; they vacation at expensive resorts, purchase expensive clothes, and, in general, live on a plane which is not warranted by their incomes. Obviously, if the individual is to balance his budget, extravagance in one direction must be balanced by extreme saving in another. Hence, the individual often makes great sacrifices in essential needs, such as proper food, medical care, education, and the like, in order to impress others by conspicuous spending.

A fifth criticism of our economic system is the freedom producers are allowed in advertising their products. It is maintained that unless advertising is directed toward enabling consumers to satisfy their wants more adequately it is a social waste. The argument is advanced that the hundreds of millions of dollars which are spent annually by cigarette manufacturers is not primarily calculated to increase consumer satisfactions, but rather to divert consumption from one brand to another. Other in-

dustries follow a similar procedure. To the extent that such advertising does nothing more than shift consumption from one brand of a particular good to another brand, it is contended by some that such advertising represents social waste.

A sixth criticism is directed toward the prevalence of inequality. In spite of the great advances in technology, and in spite of an abundance of goods which has made possible an increase in the average plane of living, thousands of citizens still are faced with poverty and live in a state of misery and want. Therefore, it is said, production of an abundance of goods is not enough. It is necessary, in addition, that these goods be distributed in a manner that will increase the general welfare of all the citizens.

The seventh criticism of present-day economic conditions relates to the wastes which occur in our industrial system. There is much waste through the duplication of plants producing the same goods. Moreover, at times labor and capital are not utilized to capacity or in the most efficient manner. Then, too, periods of unemployment, when both labor and capital are idle, represent waste. Any system, it is said, which allows its labor and capital to be wasted by unemployment, inefficient utilization, duplication of plants, and excess capacity, and which, in addition, wastes its natural resources, cannot hope to promote the general welfare in the most efficient manner.

The road to economic progress. The criticisms just noted indicate that there is much room for improvement in our economic system. There are two views as to the general method by which such improvement can be brought about. These are indicated by the following questions: (1) Are the faults noted inherent in the kind of system which we have, so that comprehensive political change is in order to remedy them? If so, shall the system of individual enterprise be partially or wholly abandoned in favor of some other system? (2) Are the difficulties discovered due largely to factors which can and will be remedied without the necessity of major changes in our system of individual private enterprise?

Those who believe that radical change is needed are convinced that private enterprise must be abandoned in large areas of our economy if the economic system is to produce the social benefits we desire. These groups point to monopolistic practices, pressure groups and blocs, and inequality of wealth and income as insurmountable barriers to economic progress. They maintain that competition no longer is an effective force

in the market and that this fact should be frankly recognized. Proponents of this point of view present many proposals, ranging from economic planning under private operation to outright state ownership of all the means of production and distribution.

Those who believe that our present system should be retained admit freely that it has many faults. They are convinced, however, that a free-enterprise economy can operate in such a way as gradually to eliminate these faults. This group compares the difficulties that would confront a controlled economy with those encountered now. They insist that human frailties, such as lack of knowledge, poor judgment, and greed, will remain under any system. They fear centralized control, and they believe that it will be less efficient than a free-enterprise economy. They further insist that progress can come only when men are free to produce goods which they think the public desires.

The arguments of each group must be carefully considered. It is clear that the government, over the years, has assumed an ever-increasing role in the regulation and direction of business. Where this extension finally will stop cannot be determined at this time. However, it is clear that problems are not solved simply by government intervention. While in our study we must recognize and take into account the role of government in solving economic problems, we shall attempt to find solutions which can be employed in an economy in which individual private enterprise is dominant. One justification for seeking to retain free enterprise is that under this system great progress has already been made.

Conclusions

The survey presented in this chapter was made (1) to state the purpose of studying economic problems; (2) to survey the main problems to be dealt with; (3) to outline a procedure to be used in analyzing economic problems.

It was pointed out that, basically, everyone is interested in improving his plane of living in order to attain greater well-being. However, raising planes of living requires change, and change disturbs established patterns. Furthermore, change tends to create insecurity. Hence, *there has always been a question whether society can improve its economic well-being and at the same time attain economic security.*

Our study indicated that, in the past, whenever economic disturbances

arose, there was a tendency to impose strict rules and regulations to prevent a recurrence of such disturbances. Such a policy frequently led to a static economy and tended to stifle progress. Often conditions became worse instead of better. It was the failure to analyze the causes of these disturbances which prevented the application of effective remedies.

In the nineteenth century economists adopted the theory that, if the factors of production could be kept mobile, there would be sufficient flexibility in the system to allow for automatic adjustments to changing conditions. They believed that such an economy would tend to establish an equilibrium and would not be subject to serious disturbances which might endanger economic security. However, so many new conditions have arisen that it is now apparent that the economy is no longer sufficiently flexible to allow the factors of production automatically to make reasonably prompt adjustments to changing conditions. We have pointed out that war is one of the primary factors preventing stability. There are others, however, such as monopoly, trade restrictions, monetary expansion and contraction, and unwise government policies. All these factors have contributed to causing the economy to become periodically unbalanced.

Two major economic problems now confront us: (1) How can we maintain the dynamic, progressive character of our economy? (2) How can we prevent extreme fluctuations in business of the kind which characterize a "boom or bust" economy?

To solve these problems, and others related to them, we suggested the following procedure: (1) State each problem carefully. (2) Assemble and present data to gain an understanding of the nature of the problem. (3) Survey and analyze possible solutions. (4) Select the solutions most likely to be satisfactory.

At the beginning of our study it was necessary to consider whether our economic system had failed entirely or whether progress had been made. We concluded that, in spite of many shortcomings, and even though we face many serious economic problems, great progress has been made. It is this progress in the past that allows us to look hopefully toward the future. Our study, then, will be concerned with finding ways to achieve still higher planes of living, while at the same time attaining a reasonable degree of economic security.

Since the solution of most economic problems involves some type of action on the part of government, in the next chapter we shall deal with

the following basic problem: What are, and what should be, the economic functions of government?

Review Questions

1. State the two basic economic desires which most individuals are interested in satisfying, and list the significant problems which must be solved before these desires can be satisfied to a reasonable degree.
2. Is the problem of attaining economic security of recent origin? Explain.
3. State the two conflicting methods that have been proposed for attaining economic security.
4. Define carefully the terms flexibility, security, and progress. Show that flexibility may contribute to both security and progress.
5. Distinguish between economic security and social security.
6. What conditions must be present to make economic progress possible?
7. Distinguish between standards and planes of living. Point out how standards and planes of living are related to economic security and to economic progress.
8. What procedure do the authors follow in seeking to solve an economic problem?
9. Must we seek solutions to all of our problems, or is there a possibility that some may solve themselves? Explain carefully.
10. Distinguish between problems which are largely noneconomic and those which are basically economic in nature. Give several examples of each type.
11. What is the Committee for Economic Development? What are the objectives of this Committee?
12. What is meant by the expression "social point of view"?
13. Are we making progress? Explain carefully, citing some specific examples to show what has been accomplished.
14. Name the main failures which are charged against our system, and state the two questions that must be asked relative to the causes of these failures.

15. What is meant by a "boom or bust" economy?

16. Must the government exercise some control over the economy if our major objectives are to be achieved? Explain.

Problems

1. President Alvin E. Dodd of the American Management Association, writing in *Dun's Review* (July, 1948), makes the following statements:

> The need of flexibility to meet changing conditions is the most intriguing subject confronting us in these rapidly changing times. This is true not only in production but in sales, in labor relations, in scientific and commercial research, and in every other phase of business operations as well as in our broader economic and political trends.
>
> It is significant that so many executives in industry have this deep concern with this problem of flexibility because American industry already has a record of adaptation and flexibility in adjusting itself to the needs and demands of both peacetime and wartime that is unequaled anywhere in the world.

a. How does Mr. Dodd define flexibility? Is his concept of flexibility similar to the one employed in the text?

b. Do you agree with the idea that we are unequaled in adapting ourselves to changing needs? Give illustrations of the flexibility of our economy.

c. If our businessmen, labor leaders, researchers, and others readily adjust themselves to new situations, why do so many problems exist?

2. Professor Lauterbach of Cornell University, in his book "Economic Security and Individual Freedom" (p. 8), says that some people argue that the chief danger in this country is a possible "alliance of bureaucrats who are driven by an insatiable lust for power, and long-haired crackpots, who have never met a payroll."

a. How do you interpret the above statement?

b. Do you agree with the people to whom Professor Lauterbach refers? Why or why not? Explain carefully.

3. Professor Davis of the University of Pennsylvania states in his book "Economic Progress" (p. 1), "If 'progress' was the watchword of the nineteenth century, 'security' is currently that of the twentieth century."

a. Do you agree with Professor Davis?

b. Should we emphasize security at the expense of progress?

4. An Australian economist recently stated that a minimum standard of consumption and improved working conditions must be achieved even if it is

necessary to sacrifice some "freedom" and some "production." Do you think it will be necessary to sacrifice some freedom and some production to achieve the goals mentioned? Why or why not?

Suggested Readings

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2. The Economic Functions of Government

The role of government in our economy. Our survey of economic problems has led to the conclusion that the government must play an important role in directing and supervising economic activities if society is to attain the objectives we have set forth. Before the economic functions of government are discussed, however, a point of view relative to the nature of government must be presented. It should be evident (1) that any society by organized effort may achieve objectives which are not possible when attempted by isolated groups; (2) that governments are created to carry out such organized activities; (3) that when society is as highly industrialized and complex as ours, government controls will be varied and intricate.

However, it should be clear that recognition of these facts does not mean that all government action is beneficial, per se. Government action may be good or bad; it is capable of rendering valuable services or doing great harm. Governments are instruments administered by individuals, and these individuals are subject to all of the frailties and weaknesses of mankind. It is obvious that government action is neither wiser nor better than those in power. Moreover, in countries where dictators have ruled, conditions have been neither better nor worse than the conscience of the people. Fascism in Italy or in Germany could not have flourished had not many citizens wanted to destroy the existing order at any cost.

In this study of the economic functions of government certain premises must be kept in mind. We shall assume that by wise legislation the general welfare of a nation may be enhanced, but we must never forget that when errors are made by the government the whole nation may suffer the consequences. Since the government is a powerful instrument to be

used for good or evil purposes, the purposes for which controls are imposed and the manner in which they are enforced will determine whether government action will carry the system to the higher goals of economic welfare or destroy it.

If our analysis to this point is correct, our first task is to determine the part which government can play in stimulating economic progress and in maintaining a reasonable degree of economic stability. The ultimate objective must always be promotion of the general welfare. In broad terms the principle which should guide the government may be stated as follows: *Every economic control must be designed to aid the factors of production to adjust themselves to changing conditions so that economic progress may continue without interruption.*

The problem. If we are to propose methods of securing the objective just stated we need to know the degree of maturity of our economy. Is it young, vigorous, and growing, or has the rate of growth been slowing down? Unfortunately, there is no common agreement as to the exact status of our economic development. We know that we have long since passed the stage at which we had a simple economy, for ours is now a highly industrialized society. But there is little agreement whether in such an industrialized economy it is possible for the government to make the greatest contribution by imposing a minimum amount of control, or whether the government must assume absolute command. The first alternative would call for little more than an effort to maintain, or perhaps to increase, the amount of competition in our economy. The second would call for long-term planning and for filling in the valleys and leveling the peaks of business activity. A few businessmen and economists still urge a completely hands-off policy for government in economic life, but they are no longer numerous. Our problem then is, *What is the nature of our economic system and what is the role of government if our economic objectives are to be achieved?*

The philosophy of regulation adopted by any people is determined to some degree by the conditions which prevailed at the time when its government was formed. Our system of private enterprise grew out of the revolt against outmoded rules and regulations which were stifling business. The mercantilistic policies of all countries had become obsolete as new areas and markets became available for exploitation, for mercantilism was stifling initiative and forcing all business into definite patterns based on outmoded customs and vested interests. As a result the econo-

mies of most nations had become inflexible and the factors of production immobile. As long as these controls remained it was not possible to introduce many of the new methods which were being discovered. However, any system that retards economic change is likely to be modified in time.

It was, therefore, no mere coincidence that the political revolutions in England, France, and the United States were accompanied by radical changes in economic policies. These revolutions in economic policies were directed in part against controls which prevented individuals from taking advantage of new opportunities as they presented themselves. In consequence, it was generally agreed that individuals ought to be free to follow any economic pursuit as they saw fit, without government interference.

Partly as a result of this new attitude, our economy expanded rapidly in the nineteenth century. New areas were settled, and economic well-being was improved in the older sections of our nation. The same thing happened in many other parts of the world. No other system has ever brought economic benefits equal to those that accrued under the stimulus of private initiative and enterprise. At the same time, however, it was possible for some persons to take advantage of this freedom, and by collusion, fraud, and monopoly to exploit others and enrich themselves. Thus, it was necessary even for those who believed in the beneficence of a system of private enterprise to insist that some economic controls be enacted in order to maximize the benefits that might accrue to the public.

A second factor also led to an increase in government controls. It was recognized that over the years social and economic relationships change. Hence, a policy that is perfectly adapted to one period may not be a good policy in another. In fact, it is sometimes contended that while the so-called laissez-faire policy was well adapted to a new country waiting to be exploited, this policy could not be continued when the economy became highly industrialized. It was therefore argued that many new controls are necessary to preserve private enterprise in a complex industrial society.

A third factor also led to a demand for more economic controls. The rate of growth of an economy determines to a large extent the kinds of controls which are necessary. We shall explain shortly that a growing economy may not need the same kind nor the same amount of controls

as are needed once the economy has ceased to grow. The responsibility of government, therefore, will be affected by the growth trend in the economy.

The question arises whether an economy in which the factors are flexible and mobile when economic relationships are simple can retain that flexibility and mobility when the society becomes complex. Can a government by imposing appropriate controls develop competition and thus stimulate flexibility and mobility? If not, how can it bring about the adjustments which will enhance economic well-being by offsetting the bad effects of inflexibility or immobility?

It is clear that our study is concerned with some very complicated issues. We shall not attempt in this chapter to answer all of the problems that will be presented, for this task will be undertaken in later chapters. At this point, however, we can consider certain basic issues: (1) What kinds and types of controls are necessary in an economy in which economic relationships are relatively simple and in which expansion is taking place? (2) What is the nature of the controls which must be imposed if the economy has become highly industrialized and complex, but is still expanding? (3) Suppose the economy is not expanding—that it has become "mature"—will it be necessary to impose controls in addition to those needed if it were still growing at a satisfactory rate?

These three questions will be difficult to answer. It is important, however, for the reader to realize that great harm may result if those in authority misunderstand the type of economic system in which they live, and as a result impose the wrong kind of controls. For example, it would be sheer folly to attempt through government controls to solve economic problems under the assumption that our economy had reached maturity when actually it had much growth ahead. Also, it would be equally foolish to assume that our complex industrial system is expanding at a satisfactory rate when growth for one reason or another is not possible. It seems clear that, as we seek to analyze the many problems that confront us, we must be sure that we understand the nature of our economy and the effect of controls imposed by the government.

The role of government if the economy operates under rather simple relationships. Since our economic system is in fact highly complex, a discussion of the role of the government when relationships are simple is valuable only because such discussion provides the basis for further analysis. A simple economy is one which is chiefly agricultural, with few

if any large cities, and with small enterprises predominating in industry. Such a situation prevailed in the United States until the time of the Civil War, and was probably characteristic of large areas of our economy until at least 1880. Also, in the United States until 1880 or 1890 there were large amounts of free land available. After this period free land almost disappeared, and the growth of our communication and transportation systems made big business possible. Gradually the economy became highly industrialized.

Now, what kinds or types of economic controls were necessary in our economy as it existed prior to 1880? What was the role of government in such an economy? With free land still undeveloped, and with roads and other means of communication and transport still to be built, the government could devote itself to making conditions favorable for the growth of those factors of production which could develop the country in the most satisfactory manner. Labor was very scarce. It was therefore logical for the government to foster immigration and to encourage immigrants to become citizens. Moreover, if the country was to make the most rapid progress, enormous amounts of capital for investment purposes were needed. Here the government could aid by protecting property and contract rights and by fostering free enterprise. Because communication and transportation were vital if the country was to expand, aid could be given in the building of railroads, canals, and roads. Farming could be encouraged by the adoption of a liberal land policy.

It can be seen that the economic functions of government in an economy that is not complex, but is expanding rapidly and becoming complex, is to stimulate, aid, and encourage those seeking to increase production. Economic controls in such a system are not designed to limit or restrict industry but rather to allow any aggressive individual to make the most of his opportunities.

If government attempts to fulfill its obligations in a simple, expanding economy, will the citizens achieve the goals which we have set? Will they make progress and at the same time attain a reasonable degree of economic security? To answer these questions it is necessary to consider certain facts which have not as yet been taken into account. First, every expanding economy inevitably is becoming more complex. Second, no economy progresses at a uniform rate throughout its whole geographical area. Some areas remain largely agricultural while others become

industrialized. In such an economy laws that may encourage the agricultural regions may not stimulate industrial areas.

We need only refer to the policies employed in the United States to observe the difficulties of regulating a relatively simple economy which is growing at an uneven tempo. It has been observed that the year 1880 may be used to represent the end of a simple economy and the beginning of a more complex one. Yet by 1880 the North Atlantic area of our country, including New England, New York, and Pennsylvania, could be characterized as industrialized, while the other regions were still largely agricultural.

Before 1880, however, those in responsible government positions did little to regulate industry. There was little demand that rules and regulations be imposed to ensure that competition was fair for all, and to prevent some citizens from being exploited. This era saw the rise of monopoly in certain fields of industry, the misuse of property and contract rights, the exploitation of labor, and the manipulation of state legislatures for private profit. Further, the economy suffered periodically from booms and depressions which greatly reduced economic security.

We may conclude from our brief survey that the government cannot prescribe controls which will promote the general welfare unless those in power understand that changing conditions may affect vast areas of an economy in a variety of ways. One might say that some of the difficulties confronting the United States prior to 1880 were in part due to the fact that the government was not sufficiently concerned with the economic life of the nation, but this is questionable. The government did indeed influence industry in many ways. Its tariff, immigration, land, and monetary policies at times stimulated and at other times retarded progress. But it was contrary to the prevailing doctrine for the government to participate in economic life. And why should it? The factors of production remained reasonably flexible, resources and opportunities were plentiful, and as a result rapid progress was made without government intervention.

The role of government in a complex industrial system that is expanding. Our survey thus far has led to the observation that in the early stages of industrial development the government may foster industry by subsidies, tariff protection, and encouraging the expansion of transportation and communication. However, once industry has become well established, the role of government changes. It is then its function to

see to it that the economy operates at the greatest possible efficiency. In a simple economy, for example, tariffs may be imposed to stimulate the creation of infant industries. But once these industries have been established, the government must determine whether the tariff is enhancing or retarding their efficiency, and whether they are making a net contribution to the welfare of the nation.

One of the outstanding problems that confront any government, when it seeks to assume economic functions in a complex society, is what to do about competition. It is commonly agreed that competition is an effective regulator of economic activity if it can be kept free and fair. There are many advantages in allowing competition to determine who shall perform the various economic functions. If competition is free and fair, goods and services are produced most efficiently. Under the force of competition producers lose out if they lack sufficient flexibility to maintain efficiency under changing conditions. Flexibility and mobility encourage progress, and society benefits. If some way can be discovered to make competition fair and free many of the problems that confront a government in a complex society can be solved.

If the primary economic function of the government in a complex society is to enforce fair and free competition, then those seeking to regulate business must always keep this fundamental objective in mind. In furthering this objective property and contract rights must be protected. Freedom of entry into any business must be promoted, competition enforced, and fraud, monopoly, and other forms of collusion eliminated. Also, the state must not allow any pressure group to receive special privileges. In such an economy, labor, the human factor, must be given every opportunity to develop to its highest degree of efficiency, but for every right extended some corresponding duty and responsibility must be accepted.

If maintenance of competition is the immediate objective, monopoly may be allowed only in those areas of the economy where, for one reason or another, competition is not feasible. Public utilities are an example. In these areas, it is the duty of the state to regulate each enterprise in order to promote the public welfare. In particular, it is the duty of the state to see that the prices charged are not unreasonable. The state may even acquire ownership of certain of these industries without overstepping its proper functions.

There are other industrial areas that must be given special considera-

tion by the state in an expanding, complex economy. Certain services cannot be given under conditions which will allow private business to make a profit. For example, in such activities as police and fire protection, the creation and maintenance of parks and roads, the establishment of sanitary districts, and the provision of schools, no cost-price relationship can be established. The welfare of the community is so involved in these activities that services must be rendered whether or not they can be paid for on a basis that will cover the cost. Such services are rendered without regard to direct payment by the users, and most of the costs are met from tax revenues.

The state has still other economic functions when the economy is complex, even though it is expanding at a satisfactory rate. It must see to it that certain standards of quality are maintained in the production of goods and services. The citizen is often in need of certain services, yet is in no position to determine the qualifications of those who provide them. In medicine, law, education, and similar service occupations, standards can only be maintained if the state weighs carefully the qualifications of those who enter. In like manner, rules and regulations are necessary to preserve standards in industries which involve trust. Banks, insurance companies, issuers of securities and security exchanges, trust companies, and similar enterprises must be regulated to protect the citizen.

As has been pointed out, a complex, expanding economy does not grow at an even pace. Moreover, in such an economy some industries are always present that are in distress. Wise legislators in a democratic government will seek to enact laws which will mitigate the evil effects of these conditions. In later chapters we shall consider some measures which may be taken by the government to ease such distress.

There are still other economic functions which must be performed by the state in an expanding economy. Moreover, as the economy becomes more highly industrialized even the minimum amount of control means the passage of complicated laws. Hence, we may expect that the state in performing its expanding economic functions will employ many individuals and incur heavy expenditures.

We so far have assumed that most regulations are designed to enforce fair and free competition. It was recognized that special legislation is necessary in some important economic areas such as public welfare industries, public utilities, fiduciary institutions, and the professions. In

other words, the objectives of fair competition are the goals to be achieved, even in a so-called mixed economy in which some industries are carefully regulated while others are not.

There are many economists who maintain, however, that in a mixed economy competition cannot act as an effective and efficient force in the market even when protected by governmental regulations. These economists maintain that our society has become so highly industrialized that freedom of entry is no longer possible in most industrial fields. In these days of big steel, big auto industries, big labor unions, and big farm organizations, business is conducted not on the basis of the forces of competition, but on principles which characterize monopoly and oligopoly. This being the case, they believe that the economic functions of government must be directed toward new goals.

If the control of some industries is so concentrated that competition cannot be made an effective force in regulating production and prices, then government must require these industries to operate in the public welfare by imposing new types of control. It is suggested, for example, that more large industries now considered private be placed in the public-utilities classification, and be made subject to the types of control used in regulating utilities.

In a mixed economy a considerable variety of controls is likely to be used by the government. Industries cannot plan entirely on the basis of future market conditions without considering possible government action. The state may use its power to raise or lower interest or discount rates, to impose price control, to establish quotas, to invoke wage and hour provisions, to change tax rates, or to increase or decrease its own expenditures.

However, in the above discussion we assume an expanding economy. In seeking to explain some of the many problems which are confronted in a complex society, some economists insist that many of these problems arise because our economy is no longer expanding at a satisfactory rate.[1] Because this point of view has been widely held, we must give careful consideration to the arguments which are presented.

Expansion and stagnation. Every student of economics realizes that growth usually is characteristic of successful business enterprises. If a

[1] HANSEN, ALVIN H., "Economic Progress and Declining Population Growth," *American Economic Review*, Vol. XXIX, No. 1, Part 1, p. 1, March, 1939.

plant is built too large for present volume of sales, a little later increased demand often absorbs excess capacity. In an expanding economy those who are willing to take risks are frequently able to secure large rewards. Furthermore, those who anticipate the growth of large cities, giant industries, and constantly increasing needs, and who prepare for this growth in the present, are benefiting society and are in consequence entitled to a reward for their foresight. It must be clear, therefore, that under favorable conditions private enterprise in a growing economy tends to increase the economic welfare of all concerned at an exceedingly rapid rate. Where this is the case, too many government controls would tend to slow up economic progress.

The fact, however, that the success of a private-enterprise system seems to depend upon rapid expansion is fraught with serious implications. Any system that is capable of growth may some day reach maturity or even decay. Moreover, it is possible that, in the case of private-enterprise systems, a mere decline in the rate of growth may have unfortunate consequences.

We must attempt, as we study our economic system, to take a sufficiently long-run point of view to be able to discern underlying trends, for the rate of growth of our economy is subject to wide fluctuations. As we have observed, a survey of the past indicates that the rate of economic activity has fluctuated rather widely. In certain periods growth and expansion have been rapid; in other periods there was stagnation or even recession accompanied by widespread distress and suffering. A survey also shows that even in the most active periods of economic growth and development, some areas and some industries were in distress. In our own time, in the period prior to the Second World War, agricultural distress was widespread, and conditions in the coal, textile, and transport industries were unsatisfactory. In such industries, over the years, employment had generally decreased, capital had received little if any reward, bankruptcy and reorganizations had been frequent, and investors had lost heavily. Yet much of the time the economy as a whole had been prosperous.

We further discover that while the whole system was relatively static during certain periods, every period of stagnation was followed by renewed growth. It appears almost as if our economic system stops to take breathing spells and then rushes forward again, not only to make

up for lost time, but to achieve greater goals. In the past we have accepted these periods of stagnation as one of the unavoidable costs of progress.

Early in the twentieth century some economists began to give serious thought to the possibility that this irregular and periodic progress might some day cease, and that our economy might become permanently static. Some of them believed that if this should happen, it would be necessary for the government to expand its economic controls, and to accept a much more direct responsibility for the efficient operation of our economy.

Some of these theorists became convinced that our economy was on the verge of becoming mature as early as 1914.[2] However, the First World War stimulated expansion to such an extent that, in the United States at least, growth continued at a satisfactory rate until 1929. Nevertheless, in some industries distress was widespread even in the early 1920's. In certain countries, however, it appeared that growth was not sufficient to overcome the maladjustments caused by the First World War, and therefore governments increased economic controls in an attempt to solve their problems. According to this interpretation the rise of various "isms" in Europe can be largely explained by changed economic relationships, caused by lack of adequate expansion.

In the belief of many of the mature-economy theorists, the year 1929 marked the end of the period of rapid economic growth in the United States. Because its period of growth was in the past, they felt that our system of private enterprise could not recover from the depression which followed without substantial government aid. Moreover, they believed that this government aid should not be temporary in character, but that it should be continued indefinitely. Since our economy had reached the "mature" stage, it was no longer sufficiently flexible and dynamic to maintain an adequate level of production and employment without positive government aid.

If the mature-economy theory is correct, it is clear that one of the basic problems of applied economics is to discover the conditions essential to progress under a private-enterprise economy, not only when the economy is growing spontaneously, but also when it has become mature.

[2] SCHUMPETER, J. A., "John Maynard Keynes, 1883–1946," *American Economic Review*, September, 1946, p. 500.

We must, therefore, consider briefly those forces which cause an economic system to grow as well as those forces which prevent such growth.

Forces which cause an economy to grow.[3] It is clear that there are a number of circumstances, the existence of which would tend to cause economic expansion. Let us consider some of the more important of these circumstances.

First, any economy will expand rapidly if undeveloped geographical frontiers are available which will drain off surplus men, provide new outlets for capital, and add to the total output. In the United States, for example, our geographical frontier was a potent factor in stimulating growth until about the beginning of the twentieth century.

Second, all industry constitutes an important economic frontier capable of sustaining growth. Thus, an agricultural economy may shift in large part to an industrial economy, and this change will create a tremendous demand for men and capital for many years. When such a shift takes place, transportation and communication facilities must be enlarged and improved, cities and factories must be built and equipped, and new products must be developed. While these changes are taking place, agriculture may also be prosperous, for not only is surplus population drained from farms, but the increase in population in cities makes an ever-increasing demand for the products which are raised on the farm.

A third factor which stimulates economic expansion is the rise of great new industries. At one time or another the growth of such industries as railroads, electric utilities, and automobile manufacturing has stimulated the entire economy. Railroads, for example, first became significant in the 1850's, but the stimulating effects of growth in this industry continued into the twentieth century. Other transport industries have had a stimulating effect, and are even today expanding. Also such industries as electric power and automobile manufacturing have had a powerful effect in stimulating economic growth.

Fourth, a growing population creates a kind of economic frontier, for more people require an ever-increasing amount of goods and services.

Fifth, technological progress stimulates economic growth. By increas-

[3] The discussion in this section draws on these sources: G. TERBORGH, "Public and Private Investment after the War," Machinery and Allied Products Institute, Chicago, 1943; and H. G. MOULTON and Others, "Capital Expansion, Employment, and Economic Stability," Brookings Institution, Washington, D.C., 1940.

ing the productivity of workers it increases their purchasing power and their standards of living. It takes little imagination to envision the demands for goods and services that would arise if the whole world were to attain a standard of living equal to that now existing in the United States. Even in our own country, however, standards can be increased further. The possibility for growth because of this factor alone is almost beyond comprehension.

Sixth, expansion of foreign trade also stimulates economic growth in every participating country. Industrial nations can increase the capacity of their industries beyond their immediate national needs by engaging in foreign trade. Other nations can increase their output of raw materials and farm products. Foreign investments may also play an important part in stimulating growth and in industrial expansion.

Seventh, wars may create temporary new economic frontiers and some of the economic effects of wars in creating new demands may be permanent. The demand for war materials may cause a country to shift from an agricultural to an industrial economy. New products and methods may be developed to meet the war emergency, and these may lead to a permanent increase in production and trade.

The above list of the conditions which result in spontaneous economic growth is not complete. It does, however, include the major factors which should be recognized and understood.

Forces which prevent the economy from growing.[4] Proponents of the mature- or static-economy theory agree that all of the "frontiers" mentioned above will stimulate an economy and cause it to grow. They maintain, however, that some of the growth forces are no longer potent and that the remainder are not sufficiently powerful, in themselves, to maintain spontaneous growth and expansion.

The arguments presented are as follows:

First, geographic frontiers are one of the most basic of all the forces which cause an economy to grow rapidly. There are, however, few important geographic frontiers left in the world. In the United States, for example, the geographic frontier ceased to exist, as a vital expansionary force, as early as 1880 or 1890. European nations which had been stimulated for years by colonial expansion had also exhausted this force by

[4] The discussion in this section draws upon SEYMOUR, HARRIS, "Postwar Economic Problems," McGraw-Hill Book Company, Inc., New York, 1943, Chap. 4.

about 1900. In other words, while some geographic frontiers still exist, this factor will never again become of sufficient significance to stimulate a rapid growth of the world economy.

Second, industrialization of agricultural countries is no longer contributing to expansion as it once did. The United States grew up industrially during and immediately after the First World War. Hence this factor is no longer a vital force in expanding our economy. Those who hold this view argue that the industrial expansion immediately after the Second World War was due merely to the deferred demand accumulated during the depression and war years. They say that it did not represent a resumption of long-term growth.

Third, while it is conceded that railroads, automobiles, and electric power once had great stimulating effects upon the entire economy, no great further expansion is likely in these industries. Such new industries as radio, airplanes, television, atomic energy, and others, which have become significant in our own time, may not have sufficient growth potentials to offset the depressing effects of stagnation or even contraction in other industries. Thus the development of new industries may no longer be an important force in bringing about economic expansion.

Fourth, the growth of population is a powerful economic stimulant only in a period when the population is below its optimum, or best, level. Once this optimum has been reached, population growth may tend to lower living standards rather than to stimulate the economy. It is probable that in the United States population has passed the optimum point. Hence this factor cannot stimulate the economy to any great degree.

Fifth, after the expansionary effects of World War I had passed, our foreign trade declined rapidly. This decline had a depressing effect upon agriculture in the United States, and this in turn affected many other industries adversely. With such a large portion of the world today under the control of totalitarian governments, free trade in the world is impossible. We cannot, therefore, expect that foreign trade will be a stimulating force, once the reconstruction period is over in Europe and Asia.

Finally, while wars have some stimulating effects, these by no means offset the huge losses incurred. Furthermore, war tends to destroy a system of private free enterprise. Obviously, a succession of wars is no solution for the problem of maintaining economic growth and progress.

Regulation in a static or mature economy. Today many economists hold one or the other of two widely divergent points of view. One group believes growth will continue without governmental aid; the other insists that the economy has become mature and that it is likely to retrogress unless governmental aid is given. We must note that both of these groups wish to preserve the system of private enterprise. However, those who believe in the mature-economy theory think that the government must assume the leading role in the nation's economic life. Let us, therefore, raise the following question: Would a mature economy in fact require more regulation, or a different kind of regulation, from that which would be desirable in a growing economy?

It seems almost certain that the economic functions of the state will be greatly expanded if our complex industrial economy becomes mature. We recognize clearly that the stability of our economic system depends upon its flexibility, or its power to adjust itself to changed conditions without long periods of excessive unemployment. We also recognize that in an expanding society many adjustments can be made easily. However, in a static or mature economy such adjustments may take place very slowly if at all. It follows that if long periods of unemployment and subnormal output are to be avoided, the government must step in and take direct action to bring about the necessary adjustments.

One economist uses the following example to illustrate the difference between a growing and a mature economy. He states: "Running a progressive, free economy is rather like running with a team of wild horses: the main problem is to keep the various industries in line relative to each other. . . . If, however, it is necessary to keep in line a stationary row of wild horses by backing the ones that are too far forward and pulling out the ones that are too far behind, the task is likely to be more difficult." [5]

We conclude, therefore, that practically every measure which is necessary in regulating a complex, expanding economy must be continued in a mature economy. In addition, many new measures are likely to be required if a mature economy is to be operated in the interest of the general welfare.

Characteristics of a mature economy. The outstanding characteristic of a mature economy is the lack of adequate outlets for its labor and

[5] BOULDING, KENNETH E., "Economic Analysis," Part I, Harper & Brothers, New York, 1941, p. 210.

capital. Labor and capital increase as time passes. Unless new outlets are found, certain portions of these factors will be idle. For example, suppose a farmer is capable of operating a farm by his own efforts. Suppose the farmer has three sons. When these sons are able to shift for themselves, two of them will have to find work elsewhere, since only one son will be needed to supplant the father on the farm, and even this son will have to wait until the father dies or retires. Suppose, further, that industry does not need extra labor because it is not expanding. Where are these other two sons to find employment? The answer is obvious: if such conditions prevail, these sons will not find employment and they will be permanently unemployed.

According to traditional economic theory, a condition like that just outlined could not arise. If additional farm labor was available, it would be employed on marginal land or at the intensive margin on the better grades of land. To be sure, the marginal productivity of labor would fall. But the competition of workers for jobs would cause wage rates to fall also, so that farmers could afford to hire additional workers even though their productivity declined at the margin. However, in a mature industrial economy wages and many other prices are likely to be rather inflexible. Therefore it will not pay employers to hire additional workers if the marginal productivity of these workers would be less than the current wage rate.

Just as additional workers may not be absorbed into industry, so likewise there may be no outlets for an increase in savings. As we shall see later, a decline in national income will occur unless investment outlets can be found for savings.

Proponents of the mature-economy philosophy contend that the state must act to maintain a high per capita level of income if the economy becomes static, because otherwise much labor and capital may become permanently unemployed. But how can the state succeed if free enterprise has failed? It is maintained that this may be accomplished if the state changes the distribution pattern. It is argued that a static or mature economy has very little need of savings for investment purposes. In such an economy, however, income can be used to advantage for purchasing consumer goods. If the state can encourage consumption at the expense of saving and investment, the amount of goods and services consumed will be increased. As a result, employment will be maintained or ex-

panded, and even investment opportunities will be greater than would otherwise have been the case.

In a system of private enterprise the danger of oversaving is present, because as incomes increase corporations and individuals tend to save more funds than available investment opportunities can absorb. Many proponents of the mature-economy theory maintain that if the state can bring about a reduction of savings and direct more income into consumption channels, sufficient expansion can be brought about to provide adequate employment and high standards of living.

The analysis just given represents the arguments advanced by proponents of the mature-economy theory. Their problem is to devise ways and means to change the economic pattern by increasing the amount of consumption in relation to the amount of saving. Proponents of this theory, however, state that they wish to change the economic pattern without destroying the system of free enterprise.

Various suggestions have been offered for increasing consumption and decreasing saving. Some believe that by keeping the interest rate sufficiently low the tendency to save too much can be overcome. Others would use taxes as a regulator. It is suggested that if income receivers are not spending a sufficient amount on consumption, taxes may be levied against savings in order to encourage increased consumption expenditures. Another suggestion is government spending as a means of maintaining a desired level of employment. If private expenditures decline, the government can begin a spending program. If, on the other hand, private expenditures are taking place at a rate that may lead to inflation the government can stop spending and increase tax rates. This will not only check inflation; it will also result in a Treasury surplus.

Many other proposals have been made by proponents of the mature-economy theory. Sufficient has been said, however, to demonstrate that whatever measures are adopted the amount of regulation will be increased greatly. However, many economists maintain that these controls will so hamper the activities of businessmen that a private-enterprise system cannot survive. Later in the discussion we shall give some attention to this possibility. Here we shall simply note that nearly all proponents of the mature-economy theory agree that the economic functions of the state will be much greater in a static than in a growing economy.

Is our economy growing or has it reached maturity? Having presented two divergent points of view relative to the nature of our economy, and

having noted how each would affect the economic functions that must be performed by the state, we are now confronted with the most significant question of all, namely, Which point of view is correct?

Before this question can be answered, we must consider the effects of the Second World War. A few years ago we emerged from one of the greatest wars of all time. Wars, we have noted, may have a stimulating effect upon the economy of a nation, especially if that nation is not subjected to the physical ravages of war. New discoveries which result from the exigencies of war are made available for civilian use, and new industries are born. The stimulus of war, unless impeded by state action, is conducive to expansion. However, this statement is not meant to imply that such expansion will compensate for the losses of war.

While it is clear that the Second World War brought about a great expansion of the American economy, the significant question is, Will this expansion continue, though perhaps with temporary interruptions? Or will it soon come to a permanent end? In other words, is our economy still dynamic and progressive in its nature, or is it essentially a static economy to which the war imparted a temporary impetus?

Those who believe that our economy will continue to grow for many years to come can support their point of view with one or both of two arguments. First, they may maintain that the growth factors created by World War II, if not held back by unwise state interference, will prove so powerful as to set in motion a whole new series of stimuli. Second, they may maintain that our economic system was not mature prior to the Second World War, but was merely in one of its periodic depression or stagnation phases. Hence it would naturally be expected to resume its growth following the war. On the other hand, those who accept the stagnation theory deny the validity of both of these contentions.

The argument cannot be completely resolved. Each group can present data which seem to support its case. Proponents of the mature-economy theory point to the lack of adequate expansion after 1929, and insist that conditions similar to those which prevailed in the 1930's will exist again when our system returns to normal. Proponents of the expansionist theory explain the lack of satisfactory growth in the 1930's as nothing more than the depression phase of a typical business cycle. Though depression in this case was unusually long and severe, they insist that unwise policies of the government were largely responsible for the slow recovery. They

vigorously deny that the great depression of the 1930's indicated that our economy was approaching a stage of secular stagnation.

On the whole, the weight of evidence seems to be with those who believe that our economy is still dynamic in its nature. We can be reasonably sure that there are many forces that will continue to stimulate expansion. On the other hand, we must admit that there are strong forces that tend to hinder growth.

It is also true that in every economy some industries can be found that have passed the peak of their usefulness, and that are certain to decline in importance, and in some cases finally disappear. Progress in transportation gives us many such examples. In the early days boats were propelled by man power. Then came the sailboat and eventually the steamboat. Later still the airplane was developed and it is not yet clear whether the airplane will finally supplant even the steamboat for oceanic travel. Each of these means of transportation once represented a great industry, yet several have become outmoded. However, the decline of one industry is usually the result of the growth of another.

The decline of any industry did not mean stagnation of the system, although it usually affected certain groups adversely. In fact, as a new industry supplanted an old one, it usually became much larger than the former. Out of the maturity and decay of some industries there arose bigger and better ones to produce goods useful to man. This pattern has been repeated many times.

We see, therefore, that while some writers tend to emphasize one phase of our economic system, others emphasize another phase. Writers who expound the theory of economic maturity are perhaps placing too much emphasis upon the forces tending to cause stagnation. Some of their opponents, on the other hand, may be overemphasizing the possibilities of growth. The real character of our economic system lies somewhere between these two extremes. As the years pass it is not unlikely that there will be some slowing up in the rate of growth of our economy. Furthermore, we may expect that at times expansion will be relatively rapid, while at other times growth will almost cease.

It is our opinion that the economic system as a whole has by no means approached the limits which it can attain. We believe that much higher standards of living will be reached in the future. We also believe that, so far as possible, the government should use its powers to preserve and encourage competition. When more powerful controls are needed,

we believe that emphasis should be placed on fiscal and credit policies. The nature and proper use of such policies will be discussed in later chapters. We would avoid, so far as possible, direct regulation of business enterprises. We recognize, however, that there are situations when such regulation is necessary. The public utilities are a case in point. To sum up our point of view, we would make every effort to preserve and develop what, as we see it, is the dynamic and progressive nature of our economy.

One fact, however, must be clear. Those who have presented the maturity theory have made a contribution to our understanding of an industrial economy. Emphasis upon factors which cause maturity has led to a more careful analysis of every phase of our economic thinking. We no longer ignore these factors, and assume that all of our economic ills will correct themselves automatically and without any positive action. We now recognize that there are some areas in our economic system in which positive action by the state may be necessary. In others, however, a great degree of freedom is still very desirable. Unwise government interference with business might easily destroy the dynamic, progressive nature of our economy, with the result that standards of living would be reduced rather than raised.

In our study of economic problems, we shall sometimes find that a particular problem has arisen because some portions of the economy have become mature. At other times we shall find that a problem is the result of expansion which is too rapid. Whichever is the case, a recognition of the facts will aid us in suggesting possible remedies. However, throughout our study of economic problems, we shall make one basic assumption, namely, that the economy as a whole is still capable of satisfactory growth. Whenever government action is called for, we shall suggest the type of action which we believe is best suited to meet the situation in question.

Conclusions

We have attempted in this chapter to survey briefly certain basic factors which must be recognized if solutions are to be discovered for the many economic problems which confront our nation. In this survey we have discussed the proper economic functions of the state on the basis of three different assumptions. First, we assumed a simple and

rapidly expanding economy. Second, a complex and expanding economy. Third, a complex economy which had reached maturity.

In considering each of these situations we sought to determine the role which the government should play. Our basic premise was that in each situation the function of the state is to secure and maintain conditions which will keep the economy progressive and stable. Where possible, it is important to maintain flexibility, with fair and free competition. Flexibility contributes to stability by making possible the rapid correction of maladjustments.

In some cases, however, competition may not be sufficiently effective to bring about the correction of economic maladjustments. In these cases the state must devise and exercise controls which will bring the desired results. A considerable variety of controls is available. They may involve tax rates, fiscal policy, interest rates, public-works programs, or the direct regulation of business enterprises.

Because the authors believe that our economy is dynamic and progressive, rather than mature, it was recommended that the government place its chief reliance on retaining flexibility by preserving and encouraging competition. By unwise legislation it would be possible for the state to retard progress severely. Good intentions badly implemented may do more harm than good.

In our analysis of economic problems we shall keep the following premises in mind: (1) Our economy is growing and will continue to grow. (2) A growing economy at times reaches periods of stagnation. This, however, does not mean that the economy has become mature. (3) The various segments of every economy grow, reach maturity, and decline at different periods. We must therefore expect that certain industries will be in distress, even though the economy as a whole is making satisfactory progress. (4) It is the function of the state to correct persistent economic evils, but it can perform this function only by exercising great wisdom in its choice of methods. (5) The state must seek so far as feasible to secure and maintain that degree of flexibility among the factors of production which will allow them to adjust themselves to change. This will make direct regulation of business enterprises unnecessary. Where such flexibility is not possible, the state must use its power to bring about adjustments more directly. (6) Any economic controls applied by the government will be designed to preserve

our system of private enterprise, to make it operate more efficiently, and to make it better serve the general welfare.

It can be seen that the state has the delicate task of determining both our economic needs and how best to meet them. In the following chapters, as each special problem is discussed, the responsibility of the government must be carefully considered. The kinds of controls which are suggested, and the ways in which they are enforced, will determine whether private enterprise is to survive or whether some other system is to supplant a free-enterprise economy.

Review Questions

1. What is the role of government in human society?
2. What is the present nature of our economy? Why must this fact be known before the role of government can be determined?
3. Explain briefly the origin of the system of free enterprise, and account for the increase in government controls which has taken place in our free-enterprise economy.
4. Name and explain carefully each of the three possible stages of economic development.
5. What, basically, is the role of government if the economy operates under relatively simple relationships? Why is it difficult to determine the proper role of government even in a simple economy?
6. Does it appear that our government assumed its proper role during the period when the economy was relatively simple?
7. Explain the role of government in a complex industrial system that is expanding.
8. Suppose you are confronted with a situation in which there is a complex industrial economy that is not expanding. Is the role of government changed in such an economy? Explain.
9. When does an economy become mature, or static?
10. According to some economists, when did the United States reach a maturity stage?
11. State the main reasons which may cause an economy to expand. What makes it become mature? What type of regulation would you suggest for a mature economy?

12. Is our economy in fact growing or has it become mature? Explain your answer.

13. Is it possible that portions of the economy may be stagnant or even mature, while the economy as a whole is expanding? Why or why not?

Problems

1. The following is part of a statement on private enterprise presented to the International Business Conference by the United States delegation:

The American delegation is wholeheartedly committed to private enterprise in preference to government enterprise; to free enterprise in preference to controlled enterprise; and to competitive enterprise in preference to monopolistic enterprise. This is because the American people proudly cherish in their hearts the traditions of self reliance, liberty, and equal opportunity which are involved in these preferences and which have been the fundamentals of their political and economic system.

We think this is best for us as a nation. We frankly acknowledge that other nations may follow other courses than the one we take. Our course, as we see it, is to produce freely and trade among our various communities as we always have, as private enterprisers, and in that capacity and in that spirit to trade with other peoples in other lands in so far as may be, without handicap of prejudice or discrimination. To the extent that other nations' economic policies differ from our own, difficulties may arise; to the solution of these difficulties we pledge our earnest attention and cooperation; but we cannot conscientiously part with our birthright, in so far as concerns our own participation in international trade.

We recognize that, in our own short history, the principles on which our American concepts are based have been broadly applied to accommodate the expansion of government functions and controls. The public attitude toward these compromises has not been static—many divergences from these principles have been urged and accepted as clearly for the nation's good, or as emergency measures. Yet the fact is clear that in America today enterprise is more solidly in private hands, that here it is freer, and that here it is more truly competitive than in many other lands. And to this, we believe, is due the superb vitality which has enabled our nation to perform the American miracle of production over the years.

a. To what extent do you agree with the statement? Explain.

b. If you discovered that our economy is mature would you still agree, or would you disagree with the statement? Why?

2. In the Third Annual Report, 1947–1948, to the Board of Governors by the International Bank for Reconstruction and Development we find this statement:

Europe enjoys for the most part a mature economy; in the import field, its need is less for capital equipment than for food, fuel and raw materials, and in the investment field, its need is more for modernization, expansion and more effective utilization of existing facilities than for the construction of new facilities or for the introduction of new industries.

In proposing solutions for Europe's problem this same source maintains that:

New and bold concepts are required if some of Europe's fundamental weaknesses are to be corrected and new sources of strength provided. The volume of production must be greatly increased and the costs of production substantially reduced. There must be a new pattern of production which will permit both a reduction of imports and an increase of exports.—In short if Europe is again to become self-supporting at a tolerable standard of living, the need is for a fundamental readjustment in the structure of its economy.

a. What characteristics do the writers of this report observe to cause them to consider Europe's economy mature?

b. Does it appear that they think this is a sound and desirable condition?

c. What do they recommend?

d. If these policies were carried out, would Europe still be a mature economy? Why or why not?

Suggested Readings

Clark, J. M.: "Alternative to Serfdom," Alfred A. Knopf, Inc., New York, 1948.

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Dillard, Dudley A.: "The Economics of John Maynard Keynes," Prentice-Hall, Inc., New York, 1948.

Lauterbach, Albert: "Economic Security and Individual Freedom: Can We Have Both?" Cornell University Press, Ithaca, N.Y., 1948.

Swanson, Ernst W., and Emerson P. Schmidt: "Economic Stagnation or Progress," McGraw-Hill Book Company, Inc., New York, 1946.

Wright, David McCord: "Democracy and Progress," The Macmillan Company, New York, 1948.

3. Population and Natural Resources

In the preceding chapters we have discussed the nature of economic problems and the role of government in economic life. In this chapter we shall deal with the relationship between population and natural resources. This relationship is a basic factor which underlies all economic problems, and which must be taken into account in any attempts to solve them.

The Problem of Population in Relation to Natural Resources

Population means the number of people who occupy a given land area. *Resources* refers to all those things which are capable of contributing to the satisfaction of human needs or desires. They include man's capacity to work, and the products of his labor. They also include the gifts of nature with which man is provided by his physical environment. It is to these gifts of nature that we apply the term "natural resources."

It is clear that the economic welfare of a people depends to a great extent upon how well they are provided with natural resources, or how easily they can acquire them through trade. Such resources are the basis of all the material products of human labor. To reach a high standard of living it is essential that a nation should have access to adequate supplies of these gifts of nature.

However, the adequacy of natural resources depends not alone on the physical quantities with which the nation is endowed. It also depends on the skill or efficiency with which these are used. Further, it depends upon the population, or the number of people among whom the limited supply of resources must be shared.

In this chapter the chief problem with which we are concerned is how to bring about and maintain a satisfactory man-to-land ratio, that is, a satisfactory relationship between population and the available supply of natural resources. However, before suggesting solutions for this problem we must have an understanding of its nature and origins. This means that we must examine the present size of our population, the causes of population growth, the nature and extent of natural resources, and the possibilities of conserving and expanding the existing supply of such resources.

Let us first turn our attention to population, and the factors which control it.

The Malthusian Doctrine

For much more than a hundred years nearly all discussions of the population problem have taken as their starting point the theory of population growth propounded by Thomas Robert Malthus. Malthus was an English economist who published, in 1798, a long pamphlet called "An Essay on the Principle of Population as It Affects the Future Improvement of Society." In the next thirty years he revised this pamphlet five or six times, but his basic argument remained the same.

The essence of Malthus's theory was that population tends to outrun the means of subsistence. Man, he contended, is impelled by a natural urge to increase his numbers. Therefore, in the absence of obstacles, population will increase rapidly and without limit. Moreover, it tends to increase in geometric ratio, that is, by multiplication. For example, if population doubles in one generation, it will tend to double again the next generation, and so on indefinitely. Malthus believed, however, that the means of subsistence, especially the food supply, could be increased only slowly and to a limited extent. Therefore population would always tend to increase until the food supply became inadequate to support more people. After that, any further increase in population would be prevented by such positive checks as malnutrition, famine, disease, and war. The masses of the people were doomed, according to Malthus, to a perpetual state of poverty and misery.

Malthus's belief that the food supply could not long keep up with the growth of population was based on the law of diminishing returns. The world supply of good land suitable for farming is limited. Once all the major undeveloped areas have been opened up and cultivated to a

moderate degree of intensity, it will still be possible to increase total output by employing more workers on the land already cultivated, or by cultivating poorer grades of land. However, the law of diminishing returns will be operating. Assuming no advances in agricultural technology, any increase in output obtained by employing more workers eventually will be at the expense of a decrease in the average output per worker. Advances in agricultural technology may, for a long time, more than offset the tendency toward diminishing returns, but they cannot do so indefinitely in the face of an unlimited growth of population. Let us suppose, for example, that population should double every generation. In only a few centuries the earth would be so crowded with people that there would not even be standing room.

Malthus recognized the existence of certain factors that tend to check population growth by reducing the birth rate. He realized, also, that if the birth rate were sufficiently reduced, population would no longer press upon the means of subsistence. However, he did not believe that these so-called negative checks on population growth would ever be very effective.

In the sixth edition (1826) of his famous essay, Malthus concludes that all checks to population growth can be resolved into "moral restraint, vice, and misery." By moral restraint he meant late marriage and premarital chastity, and from these he did not expect much. It is clear that he had no realization of the extent to which "birth control" might in the future limit the growth of population.

Though more than 150 years have passed since the first edition of Malthus's essay, in most countries his pessimistic predictions have not been realized. The explanation is to be found in two developments which he did not foresee. First, production has grown at an amazing rate, not only as the result of opening new regions of the earth, but even more because of rapid technological progress. Second, in nearly all industrial countries, in spite of a rise in living standards, there has been a persistent and long-continued decline in the birth rate. Today many students fear a future decrease of population rather than a rapid rate of growth.

It should be noted, however, that declining birth rates apply principally to countries of western European civilization, and not markedly if at all to countries like China and India. In these latter countries the economic situation is not unlike that which Malthus predicted. The pres-

sure of population on resources is so great that the masses of the people live in extreme poverty.

Population Growth

The history of population growth. Very little definite information is available about the size of populations before 1800, and even less before 1750. It seems probable that during the course of history the populations of various regions expanded in some periods and contracted in others. It is believed by some writers that the population of Europe grew slowly during the Middle Ages,[1] and somewhat more rapidly in the centuries just following. However, it was not until about 1800 that several European countries actually took censuses. By 1850 fairly accurate statistics were available for western Europe, and for some non-European countries such as the United States. Today our knowledge of population is reasonably dependable for most of the countries of the world. Nevertheless, there are still important areas, like China, for which population estimates are still little better than guesses.

In spite of our sketchy knowledge of the period before 1800, it seems certain that the population of Europe increased substantially during the eighteenth century. However, the really phenomenal growth occurred in the nineteenth century and in the early part of the twentieth century. From 1800 to 1939 the population of Europe multiplied nearly three times. Even more phenomenal was the increase in the Americas, and important increases also occurred in other parts of the world.

Table 1 shows the increase of population in the world and by continents since 1800.

Population growth in the United States. It will be noted in Table 1 that North America experienced the most rapid rate of population growth of any continent. Most of this growth was accounted for by the United States. Table 2 shows the population of this country for every census through 1940, and the estimated population as of Jan. 1, 1950.

We have noted that from 1800 to 1939 the population of Europe increased three times. During the same period, however, the population of the United States increased about twenty-five times. Part of this

[1] With, of course, occasional setbacks like that resulting from the Black Death.

Table 1. Estimated Population of the World, 1800–1939 *

(*In millions*)

	1800	*1850*	*1900*	*1913*	*1939*
World	919	1,091	1,527	1,723	2,080
Asia	600	664	839	923	1,097
Europe	188	266	390	468	542
Africa	100	100	141	135	157
North and Central America	15	39	110	134	184
South America	14	20	41	56	89
Oceania	2	2	6	8	11

* From Warren S. Thompson in "Plenty of People," The Jacques Cattell Press, Lancaster, Pa., 1944, p. 4.

increase was due to immigration, but the greater portion of it seems to have been the result of a very rapid rate of natural increase. The birth rate was high, and while both the birth rate and the death rate were falling during most of the period, the death rate fell much more rapidly.

Table 2. United States Population, 1790–1949

1790	3,929,214	1880	50,155,783
1800	5,308,483	1890	62,947,714
1810	7,239,881	1900	75,994,575
1820	9,638,453	1910	91,972,266
1830	12,866,020	1920	105,710,620
1840	17,069,453	1930	122,775,046
1850	23,191,876	1940	131,669,275
1860	31,443,321	1950	150,400,000
1870	38,558,371		

Source: U.S. Bureau of the Census.

The population of the United States has continued to grow rather rapidly up to the present time. However, the rate of growth during the last 50 or 60 years has been much less than it was during the first hundred years for which we have census records. In the 50 years from 1790 to 1840, the population of this country increased more than four times. In the next 50 years, 1840 to 1890, it increased somewhat less

than four times. But in the 50 years from 1890 to 1940 it only a little more than doubled.

Reasons for the rapid growth of population since 1800. The great increases of population in the nineteenth and twentieth centuries were the result of two factors. First, there was a marked decline in the death rate because of advances in sanitation and medicine. Second, there was a relatively rapid increase in the output of both food and manufactured goods. This increase was in part made possible by the opening up of some of the undeveloped regions of the earth. Even more, however, it resulted from the industrial revolution. Because of the great advances in science and technology, the earth could support the steadily rising population. Furthermore, it could support this population on a higher standard of living than ever before.

Some writers have suggested that a rise in the birth rate may have contributed to the great expansion of population after 1800. There is, however, no convincing evidence that this is true. Rather, it seems probable that the birth rate in earlier times was generally high, but that this high birth rate was offset by a very high death rate. Not until the death rate could be reduced was any rapid and sustained growth of population possible. Reduction of the death rate was finally brought about, not only by advances in medicine and sanitation, but also by higher standards of nutrition for the masses of the people.

We have now described briefly the growth of population in the world and in the United States up to the present time. We have seen that, at least in countries of western civilization, the pessimistic predictions of Malthus have not been fulfilled. Further, we have noted that for some years before World War II the rate of population growth declined rather rapidly. This raises the question whether there really is a population problem. Is it not possible that, in modern industrial countries, population tends to adjust itself automatically to a desirable size?

However, to judge whether the relation of population to resources constitutes a real problem, we must consider not only the present size of population and the reasons for its past growth, but we must also take into account three other factors. These factors are (1) the present and future supply of natural resources; (2) the size of the population which these resources can support to advantage; and (3) the probable future rate of population growth.

Let us first turn our attention to the supply of natural resources.

The Supply of Natural Resources

Resources and technology. The supply of natural resources depends not only on the physical quantities of fertile soil, forests, and minerals which nature provides. It also depends on the state of technology, that is, on man's knowledge of how to use these "gifts of nature" to satisfy his wants. Only those things which are useful to man can be regarded as resources. With the passage of time, man adds to his stock of natural resources by finding uses for materials which previously were of little or no significance to him. Some of the things which we now include among our most essential resources were, at one time, of small consequence. Not much more than a hundred years ago petroleum could scarcely be regarded as a resource. Likewise, if we go back far enough, there was once a time when even coal and iron ore were not resources, because people did not know how to use them.

Today, the list of materials which can be considered natural resources is longer than ever before in human history, and it is constantly being lengthened by advances in science and technology.

Natural resources classified according to conditions of supply. Some natural resources exist in practically limitless amounts. Others, however, are relatively scarce, and are subject to destruction from lack of proper care, or to exhaustion from use and waste. On the basis of the degree to which they are exhaustible, we can classify natural resources into three groups.

The first group consists of natural resources which are so plentiful, and in some cases so constantly renewed, that they cannot be appreciably depleted. Such resources include some types of building stone, wind for power, sea water as a source of magnesium, and air as a source of nitrates. The second group consists of resources limited in amount, but the supply of which can be maintained indefinitely with proper care and wise use. In this group are included farm land, forests, and fisheries. The third group consists of resources which are limited in amount, which are gradually used up, and which cannot be renewed. In this last group are included petroleum, coal, and the ores of most of the metals.

Past policy of the United States in distributing natural resources. From the days of the first settlements at Jamestown and Plymouth down

to comparatively recent times most people have regarded America as a land of inexhaustible natural resources. This attitude was reflected in the policies followed by the United States government, in the nineteenth century, in distributing the land resources of the nation. Every effort was made to encourage settlement in undeveloped areas, and to bring about the rapid exploitation of forests, minerals, and water power. Under the Homestead Act of 1862 the government gave away land to settlers in farms of 160 acres each. It also, over a period of years, gave away large tracts of land to some of the transcontinental railroads in order to encourage their sponsors to build them.

In the decades following the Civil War private enterprise engaged in a lively struggle to develop the natural resources of the nation and to extract profits from them. This contributed to the rapid economic growth of the country, but it also resulted in wasteful extraction methods, and in the destruction of some natural resources, such as forests, which the nation could ill afford to lose.

The conservation movement. Conservation means the wise use of natural resources, with a view to making adequate provision for future needs. In the case of farm land, forests, and fisheries, conservation means wise care and use, so that these resources may be passed on to future generations with unimpaired or increased productivity. In the case of minerals which exist in limited quantities, conservation means reducing the rate at which they are used up. It requires the elimination of waste, and it may also involve a reduction in the rate of use.

In the last quarter of the nineteenth century many Americans became seriously concerned at the rapid rate at which our resources were being exploited. They were especially disturbed by the destruction of the forests over large areas of the country. This destruction of forests resulted not only from an increasing use of wood products, but also from fires, and from wasteful methods which were used in carrying on lumbering operations. It was a serious matter, not only because it endangered our future supplies of lumber, but also because it tended to increase land erosion and to cause floods. Forests act like sponges. They hold rain water and cause it to run off gradually. When the forests are removed, heavy rains run off quickly, carrying the topsoil with them, and flooding the lowlands along the rivers.

The conservation movement developed slowly in the United States. A Division of Forestry was created in the Department of Agriculture

in 1880, and this led eventually (1905) to the creation of the Forest Service. The first national forest reserve was established in 1891. President Theodore Roosevelt gave considerable impetus to the conservation movement during his two terms in office, and in 1909 the National Conservation Association was formed. Gradually, the conservation program made advances. In 1924 a Federal Oil Conservation Board was set up. In 1935, partly as a result of drought in the western prairie states, flood damage in other areas, and deterioration from erosion of large areas of our farm land, the Soil Erosion Act was passed. This Act placed on the Secretary of Agriculture responsibility for taking measures to reduce soil erosion.

Though in the last seventy-five years we have made substantial progress in the direction of conserving our forests, soil, wildlife, and other resources, it appears that we have by no means met the problem adequately. It is estimated that many millions of acres of good farm land are still being seriously damaged every year by erosion, and that our forests are being destroyed at a much more rapid rate than they are being replaced by new growth. According to one writer the United States has already lost one-third of its topsoil and four-fifths of its standing saw timber. "Many of its basic mineral resources are nearly depleted. Many varieties of formerly abundant wildlife are almost extinct. More than one hundred million acres of cropland—enough to feed 40 million people—have been destroyed for further cultivation." [2]

Our present stock of natural resources. In spite of the rapid growth of population and the rapid rate at which we have used or wasted some of our resources, the United States still is better supplied with natural resources than any other similar area in the world. We are fortunate not only in the quantity of our resources but also in the variety. But when we look to the future, our position is not so certain. Even a generation from now we may face serious shortages. Whether these actually develop depends largely on two factors: first, the success with which we conserve our present natural resources, or find substitutes for them; and second, the rate at which our population increases.

FARM LANDS. It has been estimated that in 1944 the United States had considerably more than a billion acres of land on which crops could

[2] PATTERSON, S. HOWARD, and KARL W. H. SCHOLZ, "Economic Problems of Modern Life," McGraw-Hill Book Company, Inc., New York, 1948, p. 406.

be raised.[3] At the present time it is clear that our farm lands are more than adequate to maintain a high level of nutrition for our population. This has been demonstrated by the production records which we have made in recent years. Not only have we been able to feed our own people well; we have also been able to send considerable amounts of food to other parts of the world. The present high level of productivity of our farm lands is largely the result of the great progress which, in recent years, we have made in agricultural methods.

FORESTS. We are not so well supplied with forests as with farm lands. The forest lands of the United States still total about 630 million acres, but of this area only about 213 million acres represents saw timber, that is, timber suitable for lumber.[4] Unfortunately our forests are still shrinking at a rather rapid rate. This is a serious situation, because it increases soil erosion and the severity of floods. It also reduces the lumber supply. This too is a serious matter, but somewhat less serious than erosion and floods. Fortunately there are many materials which can largely be substituted for lumber in building, and in the future such substitutes will be used on a much larger scale than now.

POWER RESOURCES. In power resources our position is very strong. In 1938 it was estimated that our undeveloped water power was five to ten times as great as that actually in use.[5] However, our most important source of power is coal, with petroleum and natural gas playing an increasingly important role in recent years. According to one recent estimate our reserves of coal, including brown coal or lignite, are sufficient to last 3,000 years at the average annual rate of consumption prevailing from 1940 to 1944.[6]

The weak spot in our power resources is petroleum. At the same time that our coal reserves were estimated at a 3,000-year supply, our proved oil reserves were only sufficient for about fourteen years.[7] Since then new discoveries have substantially increased our reserves. However, on the basis of figures issued by the American Petroleum Institute for Dec. 31, 1947, we then had oil reserves sufficient for only about twenty-five years at the current rate of use. Of course, if discovery of new fields could continue at the same rate as in recent years, this figure would

[3] "Economic Almanac for 1948," National Industrial Conference Board, Inc., New York, 1947.

[4] *Ibid.*, p. 257.

[5] *Ibid.*, p. 256.

[6] *Ibid.*, p. 263.

[7] *Ibid.*, p. 263.

mean little. The difficulty is that scientific methods of exploration for oil are rapidly narrowing the possibilities of future large discoveries. As a writer on the staff of the Bureau of Mines recently put it, "Much oil in new fields remains to be found, but the number of new fields is definitely limited." Meanwhile, consumption of petroleum products continues to rise rapidly.

The importance of petroleum arises from the fact that we depend upon it almost exclusively for the operation of motor vehicles and airplanes, and to an increasing extent for operating ships and locomotives. If our petroleum reserves are largely exhausted in a few decades, as seems not unlikely, we will have to find other sources of power for automobiles and airplanes. Fortunately, however, gasoline and other products obtained from petroleum can also be extracted from natural gas, coal, and oil-bearing shales, all of which we possess in great quantities.

Iron Ore. Our modern industrial economy depends upon power. Equally, however, it depends on metals, and the most essential of all metals is iron.

Several years ago it was estimated that, at the 1940–1944 rate of use, our iron ore reserves would last for only 58 years. At present our chief dependence is the high-grade ores of the Lake Superior region, and these are already approaching exhaustion. However, we have large reserves of low-grade ores and some new discoveries are certain to be made. Also, we can to some extent supplement our own ore supplies with those of other countries.

Other Minerals. Many of the more important minerals exist in nature in rather limited quantities. At least, there are relatively few places where they are sufficiently concentrated to make it practical to extract them by any known methods.

For some of the metals, including nickel, chromium, and tin, we are wholly dependent on foreign supplies. In the case of nearly all of the others, our known reserves are disturbingly limited. This is also true of some nonmetallic minerals. It has been estimated that in 1944, based on the 1940–1944 rate of use, our known reserves of the following minerals were sufficient only for the following periods: sulfur, 36 years; copper, 13 years; zinc, 13 years; and lead, 7 years.[8]

[8] *Ibid.*, p. 263.

Unless we develop substitutes there are only three ways of meeting the impending shortages of some of our important minerals. Either we must greatly restrict our consumption, or we must increase imports from abroad, or we must find new sources of supply at home. If we are forced to curtail our use of certain important minerals, we may find our standards of living and our power to defend ourselves against aggression greatly reduced. Whether or not this would follow would depend largely on our success in developing satisfactory substitutes.

The Optimum Size of Population

By the optimum size of population we mean the ideal, or best, size. Unfortunately there is no way to determine very definitely what this size would be. From the standpoint of national defense a rather large population might be best, while from the standpoint of the highest per capita standards of living a considerably smaller one might be more desirable.

Even if we consider population from the standpoint of a single objective, such as achieving the greatest military power, it is still impossible to determine just how large the population of a country ought to be. While an extremely dense population would furnish the most men for soldiers, it would also put a great strain on the supply of natural resources. This might prevent the country from creating and supporting the most effective military force. On the other hand, a very sparse population would not furnish either enough men for the military forces or sufficient workers to supply these forces properly.

Because the methods and weapons of warfare change, the size of population which would be ideal for military purposes also changes. When the most important weapons of war were rifles and artillery it was fairly easy to furnish adequate arms for very large forces. But today, with the tank, the airplane, and the atomic bomb, to furnish enough weapons of the best quality is a much greater problem. Quality and quantity of weapons become relatively more important than mere numbers of men. As the result, a somewhat smaller population than before is now likely to provide the greatest military power. A smaller population has the advantage of putting less strain on the food supply and the other resources of a country. Also, a smaller population can be maintained at a higher level of education, technical efficiency, and per capita productivity.

Our chief concern, however, is not with the relation of population to military power. Rather, we are seeking to discover the size of population which would provide the highest standards of living.

We have noted that the optimum population of a country for military purposes varies with the methods used in carrying on warfare. Likewise, the optimum population from the standpoint of maintaining high per capita standards of living varies with the methods employed in producing goods and services. In countries with a highly developed technology, the optimum population is likely to be higher than in countries where methods of production are still primitive.

When Columbus discovered America the total population of what is now the United States was probably less than half a million. Yet this population may have been too great for maintaining the highest possible standards of living by the primitive methods of production known to the Indians. The Indians had made little progress in agriculture, and were largely dependent on the supply of game for food and clothing. However, with modern methods of production it is clear that a population of half a million would be far below the economic optimum for the United States. A much larger population is needed for maintaining the highest possible standards of living. If the population of this country were only half a million, we would be handicapped in many ways. For example, we could not get the benefits of mass production, nor could we build and maintain a satisfactory transportation system.

While it is impossible to determine very accurately what the optimum population for this country would be, perhaps we can find some basis for judging whether this optimum has already been passed, or not yet attained. If the optimum has been passed, any further increase in population will handicap our attempts to raise standards of living. On the other hand, if the optimum has not yet been reached, a further growth of population will in itself tend to raise standards of living.

Unfortunately the bulk of the evidence seems to indicate that the population of the United States has already passed the economic optimum. This does not mean that our standards of living have begun to fall. Technological progress has been so rapid that they have kept rising in spite of the growth of population. It means, however, that they would probably be somewhat higher than they are if our population were somewhat smaller. If our population were smaller, traffic congestion would

be less in our urban centers; we would have more of our best mineral deposits left, and would be using them up at a lower rate; and we could stop cultivating our less productive farm lands and gradually return them to grass or forest.[9]

Population Growth in the Future

Since a continuous and unchecked growth of population would ultimately bring economic disaster to any country, the future trend of population growth is a matter of great importance. The question is, Will population grow continuously and without check? Or will this be prevented by a further decline of the birth rate in relation to the death rate?

The decline of the death rate. The death rate is usually expressed as the number of people who die, in a given year, per thousand of the population. It has already been noted that the chief direct cause of the growth of population in western countries since 1900 has been the marked decline of the death rate. This decline is still continuing. It seems, however, to be subject to rather definite limits.

The decrease of the death rate has resulted chiefly from our greater ability to control infectious and contagious diseases which kill people before they have completed their "normal" life span. We do not seem to be making much progress toward increasing the normal span itself. That is, we do not seem to be able to check the degenerative processes which set in with old age and which finally cause death. As a result, the extent to which we can increase the life expectancy of the average individual is limited. Unless we make revolutionary discoveries which enable us to retard or prevent the aging process itself, once we have succeeded in keeping most of the population alive through the normal life span we shall have reached the limit of our power to reduce the death rate. Indeed, the death rate will eventually rise again, because a larger part of the population will in time fall in the upper age brackets.

[9] P. K. Whelpton, one of our best-known students of population, says in the *Eugenical News* of September, 1939, "A population of 100,000,000, as compared with 150,000,000 in the United States, should have a higher output per worker in agriculture, forestry, and mining, about the same output in manufacturing and trade, and a lower output in communication and transportation. . . . The United States is *now* overpopulated from the standpoint of per capita economic welfare, but fortunately not as seriously overpopulated as most nations."

The declining birth rate. The birth rate is usually expressed as the number of babies who are born, in a given year, per thousand of the population. As long as the birth rate held up in the face of a falling death rate, population continued to grow rapidly. However, as was noted earlier, in time the birth rate also began to decline, in western countries.

The tendency of the birth rate to decline first became apparent in the nineteenth century, especially in France. By the end of the first quarter of the twentieth century the birth rate had fallen so much, in a number of western countries, that it was threatening before long to drop below the death rate. A well-known student of population went so far as to say, "With a fertility and mortality such as prevailed in western and northern Europe up to about 1910, the population would have doubled in three generations. With a fertility and mortality as they have now prevailed for some years, the population of western and northern Europe is bound to die out." [10]

When the above statement was made, the population of western Europe was still growing at a substantial rate. The birth rate, however, was not high enough to maintain this growth for very long. The reason for the continued growth of population in the face of a low birth rate was to be found in the relatively large number of young and middle-aged people and the small number of old people. The large proportion of the young and middle-aged was, of course, the result of high birth rates in the past. It meant, however, a death rate lower than could be maintained in the long run. As the population gradually became, on an average, older, the death rate was bound eventually to catch up with, and then exceed, the low birth rate.[11]

Reasons for the decline of the birth rate. The decline of the birth rate has been brought about by a variety of factors. There is reason to believe, however, that most of these factors are social and economic, and that they have operated principally by inducing married couples to limit voluntarily the number of their children.

Other explanations of the falling birth rate seem to be either erroneous or relatively unimportant. The suggestion that the decline in the birth

[10] KUCZINSKI, R. R., "The World's Population," *Foreign Affairs,* October, 1928.

[11] The ability of a population to maintain itself in the long run can be measured by the *net reproduction rate.* A rate equal to 1.0 means that on an average 100 mothers produce enough girl babies (more than 100) to provide, in their turn, 100 mothers.

rate may have resulted from a rise in the average age of marriage, or from an increase in the proportion of persons who remain unmarried, is not tenable. Vital statistics for the United States show that since 1890 the average age at first marriage has fallen, while the proportion of married people in the population has risen. Each of these developments would tend to increase rather than decrease the birth rate.

Some writers believe that the decline of the birth rate is largely the result of a decrease in fecundity, that is, a decrease in the physical capacity of the population to produce children. A few suggest that an increase in stillbirths, miscarriages, and abortions may account for much of the decline. We do not have very dependable knowledge about any of these factors. However, such evidence as is available indicates that if they have contributed to the declining birth rate their effect must have been minor.[12]

A declining birth rate resulting from voluntary limitation of family size raises certain questions. First, to what extent can married couples who live normal lives limit the size of their families? The answer is that they can do this much more effectively now than in the past because methods of contraception have been refined and knowledge of their use is more widely diffused. A second question, and one of even greater significance, is, Why do people now desire fewer children than they formerly did? It is not easy to learn all the answers to this last question, but most of them seem to lie in the social and economic changes which have taken place in modern times in the most advanced industrial countries.

One factor which has contributed to the decline of the birth rate is the increasing proportion of our people who live in cities. City people find children more of a burden than do country people. On a farm children can do much of the work, thus helping their parents to support them. In the city, on the other hand, children are seldom an economic asset. Also, they are more trouble than in the country because there is less space for them to play. Then, too, city parents are likely to have a great many interests outside the home, and they are therefore less willing to be tied down by parental responsibilities.

A second factor which has probably contributed to the declining birth

[12] For a discussion of the probable importance of the factors mentioned in this paragraph, see WHELPTON, P. K., "Forecasts of the Population of the United States, 1945–1975," Bureau of the Census, U.S. Printing Office, Washington, D.C., 1947, pp. 23–25.

rate is the changed position of women in our society. Two or three generations ago women had few opportunities to take part in activities outside the home, and there were almost no jobs available to them. Their interests were centered in their homes and children, and they were, therefore, willing to have large families. Today, however, few women are content to be merely housewives. They carry on a variety of activities outside the home and many of them hold regular jobs. Clearly these outside activities are not compatible with large families.

There are still other factors which have made substantial contributions toward reducing the birth rate, but in some cases the forces involved are rather intangible, and their effects are difficult to estimate. It is probable, for example, that a higher level of education for the masses has tended to reduce the size of families, because as people acquire more knowledge, foresight, and responsibility, they become more aware of the sacrifices which must be made by those who raise large families.

One might suppose that higher incomes would induce people to have more children. Paradoxically, the contrary seems to be the case. It has long been observed that in modern industrial societies the high-income groups have fewer children than the low-income groups. Furthermore, there seems to be a definite tendency for people in countries with a high standard of living to have fewer children than those in countries with a low standard of living.

While it is not possible to give a completely satisfactory explanation of the inverse relation between income and willingness to have children, the general explanation seems fairly clear. When people attain a sufficient income to enable them to enjoy a pleasant and satisfying kind of life, they become less willing to give this up for either themselves or their children. Consequently, they tend to limit their children to the number they can raise and educate without too much financial strain. The poor, on the other hand, seem to be more willing to have children. They do not expect to be able to give their children much education, and they know that if adversity strikes they will have to fall back on charity anyway.

Estimating our future population. While there may, for a time, be some further decline in the death rate, the size of our future population will depend chiefly on what happens to the birth rate. This raises the question, Will the birth rate continue its long-run downward trend?

Since the social and economic forces affecting the birth rate are very complex, we cannot answer this question with any certainty. However, some of the major factors which have brought about the long-run decline are still operative, and this suggests that the decline may continue.

It should be noted, however, that the long-run downward trend of the birth rate has not been smooth and regular. On the contrary, it has been subject to fluctuations and to temporary reversals. The greatest of these reversals occurred when the birth rate began to rise in the late 1930's. This rise continued through World War II, and gained in momentum in the two years following. Most students of population seem to believe that this situation is temporary, and that the downward trend will later be resumed. We cannot, however, be certain. At least, we cannot be certain that birth rates in the United States will, for many years to come, reach the low levels which prevailed during the depression years of the 1930's.

Short-run fluctuations of the birth rate seem to be largely determined by general economic conditions. In periods of prosperity and high employment the birth rate rises because of an increase in marriages,[13] and because potential parents feel more confident of the future. In years of depression and unemployment it falls, because there are fewer marriages, and people already married hesitate to take on the burden of additional children. The rise in the birth rate during and after World War II was probably chiefly the result of the high level of employment and incomes which prevailed during this period.

It should be carefully noted that, while a more or less permanent rise in the living standards of a group or a nation seems to depress the birth rate, a cyclical rise in employment and incomes stimulates it.

Attempts to make more or less definite forecasts of future population usually rely on the projection of statistical trends. This is not a very dependable method, because such trends sometimes shift unexpectedly. Up to World War II the population of the United States and of most other western countries had been increasing, but at a decreasing rate. If such a trend should continue, it would ultimately result in a stable, or perhaps even a declining population. This explains the fact that most forecasts of the future population of the United States have predicted

[13] An increase in the marriage rate tends to raise the birth rate a year or two later because most children are born in the first years of a marriage.

that it would reach a maximum in a few decades, after which it could be expected to begin a slow decline. While such predictions are interesting, they are not to be taken too seriously. At best they are little more than carefully considered guesses.

The "baby boom" brought on by World War II may or may not mark the end in this country of the long downward trend of the birth rate. Already, however, enough babies have been born to seriously upset the calculations of the population forecasters. As recently as 1943 Warren S. Thompson and P. K. Whelpton of the Scripps Foundation for Economic Research published a low, medium, and high estimate of the probable population of the United States in 1950.[14] According to their *high* estimate, population would not in that year reach 145 million. Nevertheless, the population of the United States in 1950 exceeded 150 million.

Table 3 shows the remarkable rise of the birth rate that occurred in the United States during and after World War II.

Table 3. Births in the United States, 1933–1948

	Number of births	*Birth rate*
1933	2,081,232	16.6
1939	2,265,588	17.3
1940	2,360,399	17.9
1941	2,513,427	18.9
1942	2,808,996	20.9
1943	2,934,860	21.5
1944	2,794,800	20.2
1945	2,735,456	19.6
1946	3,288,672	23.3
1947	3,699,940	25.8
1948	3,559,000	24.4

Source: Federal Security Agency, Public Health Service. Figures are based on registered births.

[14] "Estimates of Future Population of the United States, 1940–2000," National Resources Planning Board, Washington, D.C., 1943.

Is Population Really a Problem?

Keeping the size of the population within desirable limits. For the United States we cannot answer with any certainty the question, Is population really a problem? In countries like India and China population clearly is a problem, for the pressure on resources is so great that economic and social conditions would be tremendously improved by a mere reduction in numbers. In the United States that is not true. Though our population may have passed the optimum, it is still well within the limits of the number of people which our resources can support at high, and even at increasing standards of living. The present size of our population does not, therefore, create a real problem. If we have a population problem in this country, it relates to the future rather than the present.

However, we should not treat too lightly the possibility that we may have a serious population problem in a few decades. It is wholly possible that the population of the United States may continue to grow at a fairly rapid rate. If this should prove to be the case, it would ultimately force a sharp reduction of our standards of living and it might also reduce our military strength.

Thus far we have been considering the possible effects of an increase in population. There are some writers, on the other hand, who think that the real danger which we face is a decrease. At the present time, however, we do not need to concern ourselves too much about a possible decrease in population. The recent "baby boom" makes it certain that, if such a decrease ever occurs, it is still far in the future.

The problem of maintaining the quality of the population. Some writers believe that controlling the size of our population is a less important problem than controlling its quality. They believe that, for the most part, the persons least fitted to pass their characteristics on to future generations are the very people who produce the most children. As a result, they anticipate a gradual deterioration in the native intelligence and the physical stamina of our people.

Many of the writers who hold these views believe that the quality of the race can be raised only by a program of *eugenics*, that is, by the selective breeding of human beings. While they usually recognize the practical limitations on such a program, they think that some steps could be taken in the right direction. As a minimum they would seek to pre-

vent the procreation of children by those persons with serious physical or mental defects which could be inherited. On the positive side, they would seek to find ways to encourage the "better" elements in the community to have larger families.

The possibilities of improving the human race by eugenics do not appear to be very great in a democratic, free society. In any case, our chief concern in the present chapter is with quantity rather than quality. This results from the fact that we are seeking ways of establishing the most desirable ratio between population and resources.

A Program for Preventing Population from Pressing on Resources

Conserving natural resources. If we are to support even our present population, in the future, at rising standards of living, we must take effective measures to conserve our scarce natural resources. This is important in the case of a number of minerals which are rapidly being used up. It is most important, however, in respect to forests and our farm lands.

Conservation of forests is important as a source of wood products, but it is even more important as an aid in preventing erosion of farm lands. In the case of certain metals we may ultimately develop adequate substitutes, and in regard to others it is probable that we shall learn to process very low-grade ores which exist in abundance. If, however, we allow a great part of our farm lands to be destroyed, it is not likely that we can either restore their fertility or find something to replace them. Since the conservation of our forest and farm lands is of such vital importance, Federal, state and private conservation programs should be developed and expanded.

In the case of forests our conservation program should include some replacement. Many areas should gradually be reforested. New forest reserves should be created and old ones enlarged, especially in regions where they will do most to reduce floods. State tax laws, as they affect timber lands, should be revised so that private owners will not be induced to cut down timber merely to reduce their tax burden. All lumbering operations should be placed upon a perpetual-yield basis. Trees should be cut a few at a time, as they become mature, thus avoiding the destruction of whole forests.

Conservation of forests will do much to protect our farm lands. However, a much more energetic campaign should be conducted to teach farmers to cultivate their lands by methods which will prevent erosion. Where necessary they should be given engineering advice and financial aid for constructing control devices to stop erosion already under way.

Besides protecting our forests and farm land, a well-rounded conservation program should give some attention to wildlife and fisheries. Our fisheries furnish a significant part of our food supply. In many areas, however, we have allowed them to be damaged by overfishing, sewage, or industrial pollution.

Encouraging the discovery of new mineral deposits. It was noted earlier that our known reserves of metals like copper, zinc, and lead are sufficient for only a few years' use. Energetic prospecting should therefore be encouraged by both government and private enterprise to bring about the discovery of new ore deposits. An example of the possibilities that lie in finding new ore reserves is the discovery, in the last few years, of huge deposits of high-grade iron ore in the Canadian province of Quebec.

Developing techniques for utilizing low-grade ores. One of the most hopeful methods for extending our supplies of some scarce metals into the indefinite future is to improve the techniques for treating ores. Research and experiment in such techniques should be given every encouragement. Progress in this direction should in time make it practical to extract metal from great quantities of low-grade ores which are now of no commercial value.

Developing substitutes. It is probable that the day will come when our sources of some important minerals will be practically exhausted. The only remedy for this situation will be the use of substitutes.

The authors believe that both government and industry should support research projects designed to find substitutes for minerals which may become critically scarce within the next two decades. Experimentation should be carried on, both in the development and use of substitute products, and in the making of products from substitute sources. An example of the latter is the building of pilot plants to produce gasoline from coal or shale.

Fortunately the possibilities of substitution are much greater than is commonly realized. Even now we could, if necessary, use nickel and cadmium in storage batteries instead of lead; we could substitute alu-

minum for copper in high-tension electric lines; and we could produce great quantities of gasoline and other oil products from coal and oil-bearing shales instead of from petroleum. These are only examples. In most cases possible substitutes are inferior to the products now in use, or else more expensive. In many cases, however, this situation is certain to be remedied in time through progress in technology. The possibilities of substitution in the future as the result of technological advance are almost unlimited.

In the long run, if our industrial civilization is to survive and flourish, we must find ways of satisfying many of our wants from those natural resources that are practically inexhaustible. We shall probably never lack iron if we can learn to process very low-grade ores. Even now we can extract limitless quantities of magnesium from sea water, and of nitrogen from the air for the making of nitrates. Aluminum is available in vast quantities in the earth's crust, but we do not yet know how to extract it from the more common rocks in which it is found.[15]

In the field of natural power the possibilities of developing substitutes for coal, petroleum, and water power are vast. Not to mention the unlimited potentialities which may lie in atomic power, we have as yet done almost nothing to utilize the power of the tides and the sun, and we have made comparatively little use of wind power. The wind alone could provide many times as much power as we could use if only we were able to find some economical way of harnessing it, and some way to store it so that it would be available when the wind dies down.

One of the most interesting experiments in the use of wind power was made by the Central Vermont Public Service Company in 1941. At a cost of $500,000 this company installed a 1,000-kilowatt electric generator on top of a 110-foot tower near Rutland, Vermont. The generator was powered by a two-blade propeller of the airplane type. The operation of this power plant is said to have been satisfactory, and it is believed that much larger installations of a similar type would be feasible, especially on hilltops where relatively strong winds might be expected to prevail.[16]

Restricting the growth of population. If, as seems probable, we have already passed the optimum, a further growth of population is not to

[15] At present aluminum is extracted by the electrolytic process from bauxite or alumina, and these ores are relatively scarce.

[16] See *Barron's*, Mar. 7, 1949, p. 9.

be desired. Some further growth in the United States is doubtless inevitable, and if it is moderate, it need not cause us too much concern. A moderate increase in population would probably not very much reduce our power to continue to raise standards of living. However, we cannot afford for many decades to allow our population to increase as fast as it has in the last ten years. The number of people added from 1940 to 1950 was not far from 20 million. If that many people were added every decade, in another century we would have a population of 350 million, about as many as India or China.[17] In two centuries we would have some 550 million. While there is no way of knowing just how many people we might be able to support in the future at a "satisfactory" standard of living, the larger the number the more difficult would be the problem. It seems certain that we will be better off if our population remains below 200 million than if it rises above that number.

We will probably be wise if we adopt national policies which will tend to restrict rather than encourage population growth.

Restriction of Immigration. Without much question we should continue our policy of restricting immigration. Unrestricted immigration would cause our population to increase even more rapidly than is now the case, and would intensify many of our social problems. At the same time it is unlikely that it would appreciably reduce population pressure in other countries.

While our immigration laws probably need revision to give them more flexibility in cases where they create special hardships, the general policy of restriction should not be relaxed.

Reduction of the Birth Rate. It is possible that the birth rate will fall so much in the next two or three decades that population growth will no longer be a problem. However, we cannot count on this, and continued rapid growth would ultimately bring disaster. This raises the question of whether we can guard against such a disaster by doing something to reduce the birth rate.

It must be admitted that in our kind of society we cannot do much to control the birth rate directly. There are, however, many policies which have important indirect effects on the birth rate. It is probable, for example, that the practice of our government in the nineteenth cen-

[17] An increase of 20 million people every decade would, as population grew, mean a falling birth rate. If the birth rate were maintained, the annual numerical increase would exceed 20 million.

tury of giving farms to homesteaders made the birth rate in frontier regions higher than it otherwise would have been. People were glad to have large families because the children could help clear and operate the farms. And the children themselves were provided for as long as they could, in turn, get free land.

We have noted that any important reduction of the birth rate must result largely from the desire of married couples to limit their families. We should, if we wish to keep the birth rate down, avoid throwing any needless difficulties in the way of those who wish to control the number of their children. This means that some state laws which forbid doctors to give information about birth control might be revised. Though knowledge of birth-control methods is already very widespread, such laws have the effect of preventing some people from using the methods most approved by the medical profession.

In the long run probably the most effective way to keep the birth rate down, and thus limit population growth, is to encourage certain social trends which have been responsible for lowering the birth rate in the past. If we continue to raise the educational level and the standard of living of the masses, and to open up more opportunities to women outside the home, it is likely that the danger of overpopulation will gradually diminish.

Conclusions

Whether we can continue to raise standards of living in the United States will depend largely upon our ability to maintain a desirable ratio between population and resources. At present, though our population is probably somewhat above the optimum, we have no great problem. Our per capita supply of natural resources is large, and it is much greater than that of most other nations.

While the man-to-land ratio is not now a serious problem in the United States, it may become so in a few decades. We must guard against two dangers: first, the exhaustion or destruction of vital natural resources; and second, a continued rapid growth of population.

To meet the threat to our natural resources we should expand our program for the conservation of farm lands, forests, and fisheries. We should also seek to discover new mineral deposits, to develop techniques for treating low-grade ores, and to find substitutes for those minerals of which there may in a few years be a critical shortage. In so far as

possible, we should seek to satisfy our wants by utilizing more fully those resources which are very plentiful.

To meet the threat of an excessively large population, we should continue the policy of restricting immigration. We should also avoid putting obstacles in the way of those who wish to limit the size of their families. Further, we should encourage the social trends that seem to have been responsible for lowering the birth rate in the past. These include raising the educational level and the standards of living of the masses, and providing greater opportunities for women outside the home.

Review Questions

1. What are the principal factors involved in maintaining a satisfactory relationship between population and natural resources?
2. State the Malthusian doctrine, and explain the reasoning behind it.
3. Explain the following statement: "In spite of technological progress the predictions of Malthus will ultimately be realized if the birth rate remains high."
4. Tell briefly what is known about the growth of population in Europe from the beginning of the Middle Ages up to the present time.
5. Compare the rate of population growth in the United States from 1790 to 1840 with the rate from 1890 to 1940.
6. Why has the population of Europe and the United States grown so rapidly since 1800?
7. Why do advances in technology lengthen the list of materials which can be regarded as resources?
8. What are the three groups into which we can classify natural resources on the basis of conditions of supply?
9. Few Americans were interested in conservation until near the end of the nineteenth century. Why?
10. At the present time, how well are we supplied with the following types of resources: (*a*) farm lands, (*b*) forests, (*c*) power, (*d*) iron ore, (*e*) other minerals?
11. Explain why the optimum size of population for military purposes may differ from the optimum size for maintaining high standards of living.

12. What reasons can you give for thinking that the population of the United States may already have passed the economic optimum?

13. Population growth in the future is likely to depend on changes in the birth rate more than on changes in the death rate. Why?

14. Explain as adequately as you can the fall of the birth rate which has been taking place in most western countries since sometime in the nineteenth century.

15. Why is it impossible to estimate our future population without running the risk of making very large errors?

16. What facts support those who contend that within a few decades we may have a real population problem in the United States?

17. What is meant by eugenics? To what extent could its principles be applied in a free, democratic society?

18. Evaluate the importance of each of the following as a method of maintaining our supply of natural resources: (*a*) conservation, (*b*) discovery of new mineral deposits, (*c*) utilizing low-grade ores, (*d*) developing substitutes.

19. Should we adopt public policies which encourage or which restrict population growth? Defend your answer.

20. Should we continue to restrict immigration? Defend your answer.

21. Suggest policies which might tend to reduce the birth rate, and which it would be practical to apply in a free, democratic society.

Problems

1. Writing in 1943 or 1944, a well-known student of population argued that the goal of population policy in the United States should be maintenance of numbers. He believed that our aim should be "to maintain the approximate numbers which we now appear likely to achieve 35 or 40 years hence, viz., about 160 million."

a. Do you agree with him? Why or why not?

b. Do you think 160 million was a good estimate of our population "35 or 40 years hence"?

2. An agricultural expert recently stated that "notwithstanding all that science has done to aid the farmer, the average acre yields in the United States are only 25 to 30 bushels of corn, 13 to 15 bushels of wheat, 100 to 120

bushels of potatoes, and 160 to 200 pounds of lint cotton. . . . Every farm scientist knows that twice those averages can readily be produced."

Assuming that the above statement is true, could we double our population without any detrimental effects on our living standards? Defend your answer.

Suggested Reading

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Patterson, S. Howard, and Karl W. H. Scholz: "Economic Problems of Modern Life," McGraw-Hill Book Company, Inc., New York, 1948, Chap. 21.

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4. Economic Magnitudes

The businessman, the professional economist, and the student frequently are called upon to describe the tempo of economic activity in the present, or at some past period. Is current industrial production high or low? How high were prices after the Second World War as compared with the peak reached after the First World War? Is the cost of living rising or falling? Do wholesale prices follow a pattern which has a degree of periodicity? Such questions and their answers form much of the basic material necessary for an understanding of modern economic problems. In order to answer these questions we must have units of measurement and methods of description everyone will understand. Such yardsticks are called economic measures or magnitudes. In this chapter we shall discuss a few of the many economic magnitudes useful in the field of economics.

Measuring economic activity. Raw materials are produced on farms or in mines. They find their way over various transportation systems to factories. Some foodstuffs go directly from farms to the consumer, but many food items require processing before they can be consumed. Manufacturers turn out products in various stages of fabrication. The semi-finished items are sent elsewhere for further processing. Finished goods find their way to the purchaser through wholesalers and retailers. Consumers' goods go to the ultimate user. In the case of capital goods, the finished products go to factories, transportation companies, or wherever else they are needed. At each stage of the productive and distributive process goods are priced, and they flow at rates which can be measured, not only in physical terms but also in money values.

Workers as well as goods are used in production. They are employed on farms, in factories, offices, stores, or transportation systems. The number of jobholders is an important measure of economic activity. The amounts these workers spend or save are important in understanding the

rise and fall of production and incomes. Our use of economic magnitudes at various stages of production and distribution enables us to measure both the progress and the shortcomings of our economy in providing a rising standard of living along with a tolerable degree of stability.

Let us note briefly how economic magnitudes or measures can be used to give us various other kinds of important information. Later in the chapter we shall describe some of these measures in more detail. At this point we shall only ask certain questions and then mention the magnitude which will permit a definite answer. This procedure will emphasize the importance of economic magnitudes in the analysis of current problems. Following are some of the important questions that we shall be able to answer.

1. What is the dollar value of the goods and services our economy is producing? We can answer this question by giving the current rate of gross national product, which is the total money value of all goods and services produced in the United States in the course of a calendar year. This figure, which is estimated by the Department of Commerce, can be obtained each quarter on the basis of the annual rate attained in that quarter.

2. How much income is being created as a result of the productive activity going on in our economy? We can indicate this by giving the current figures for national income, also estimated by the Department of Commerce.

3. What is the rate of industrial production at the present time? We can answer this by giving the current figure for the Federal Reserve index of industrial production, which measures the rate of production in factories and mines. This is prepared by the Federal Reserve Board and is available every month.

4. How many persons are employed and how many are unemployed? We can answer this by noting the monthly estimates of our total labor force, the number employed, and the number unemployed. These estimates are made by the Department of Labor.

5. Are prices rising or falling? If such a question were asked, we would inquire: Do you mean at wholesale or retail? The *wholesale price index* of the Bureau of Labor Statistics gives us a measure of the wholesale price level. The *consumers' price index,* also prepared by the Bureau

of Labor Statistics, measures the cost of living in various localities, and gives us an over-all estimate for the entire nation.

6. How good is business at the retail level? For department-store sales we have weekly indexes prepared by the Federal Reserve Board. The Department of Commerce makes monthly estimates of retail sales in many different kinds of stores.

Sources of statistical data for the student of economics. There are many other questions similar to those above which could be asked and answered by the appropriate index or by estimates based on total dollar figures. This information is available from many sources. Every student of economic problems should be thoroughly familiar with the *Survey of Current Business,* published monthly by the United States Department of Commerce. A wide assortment of economic data is contained in this publication. The *Federal Reserve Bulletin,* published monthly by the Federal Reserve Board, is another essential source of data. In addition to general economic information, it contains invaluable monetary and banking statistics which enter into many economic computations. In addition various business publications, such as *Business Week* and *Barron's,* have valuable current information. Trade magazines provide data for particular industries. Trade associations also frequently gather statistical information concerning their own fields. Among the most important sources of annual data are the "Statistical Abstract," prepared by the Department of Commerce, and the "Economic Almanac," published by the National Industrial Conference Board.

This by no means exhausts the list. Almost every government department or agency issues reports of interest to workers in specialized fields of economics. Important information on regional economic affairs can be obtained from publications of the various Federal Reserve banks or of commercial institutions. Various organizations, such as the Chicago Board of Trade, issue reports of interest. The student of economics will discover sources of specialized information as his studies crystallize in a particular field.

Now we are prepared to describe in some detail several of the more important economic magnitudes.

National product data. In determining how effectively our economy is functioning, we need to know how much is being produced. Such information also is necessary if two periods are to be compared; comparisons can only be made if we know how much was produced in each

period. Gross national product is an economic concept which makes such comparisons possible. The definition of gross national product given by the Department of Commerce follows:

> Gross national product or expenditure is the market value of the output of goods and services produced by the nation's economy, before deduction of depreciation charges and other allowances for business and institutional consumption of durable capital goods.[1]

Thus when we say that the gross national product for 1947 was $235.7 billion, we mean that $235.7 billion worth of goods and services, valued at current market prices, was produced by the American economy in 1947. It is well known, however, that prices rose rapidly throughout much of 1947. In order to compare the actual physical volume of goods and services produced in 1947 with that produced in a prewar year, the output in the two years would have to be compared in dollars of the same purchasing power. Subsequently in this chapter, the problem of making such comparisons in terms of constant dollars will be discussed.

Gross national product is a very useful concept. It takes into consideration everything which is produced by our economy, whether a tangible good or a service performed by an individual. Such goods and services are evaluated at the level of final consumption in order to avoid double counting. This concept also helps us to know how effective our productive effort is. By ascertaining the number of hours of labor required to produce each year's gross national product, we can get a measure of the efficiency of our productive effort. The efficiency of our national productive effort, however, depends on many diverse factors, such as the amount of machinery available and the skill with which our productive system is organized and directed. As can be readily demonstrated, the size of the gross national product does not depend upon the hours of labor alone.

A question of great interest and importance is, What happens to the gross national product? The answer is that the total value of goods and services produced by our economy is allocated to various uses. Some is consumed and part is invested. Some goes abroad, and some is used by the government. Table 4 shows the way the gross national product was allocated in the prewar year of 1939 and in mid-1948.

[1] *National Income Supplement to Survey of Current Business,* Bureau of Foreign and Domestic Commerce, Department of Commerce, July, 1947, p. 8.

Table 4. Allocation of Gross National Product, 1939 and 1948

	1939 (*billions*)	*1948* (*billions*)
Gross national product	$90.4	$254.9
Personal consumption expenditures	67.5	177.7
Gross private domestic investment	9.0	39.7
Net foreign investment	0.9	1.5
Government purchases of goods and services	13.1	36.0

Several of these terms need explanation. "Net foreign investment" is the excess of exports over imports. In each year there was an excess of export items; a moderate difference in 1939 and a somewhat larger one in 1948. By contrast, the excess in 1947 was $8.7 billion. "Gross private investment" includes the items in Table 5.

Table 5. Gross Private Investment, 1939 and 1948

	1939 (*billions*)	*1948* (*billions*)
New construction	$4.0	$14.6
Producers' durable equipment	4.6	21.4
Change in business inventories	0.4	3.8

National income. One of our most useful tools for measuring the economic temperature is national income. National income is defined by the United States Department of Commerce as "the aggregate earnings of labor and property which arise from the current production of goods and services by the nation's economy." [2] Thus national income includes all the following items: the compensation received by all employees; the incomes of unincorporated businesses and of professional people; corporate profits, rental incomes, and interest incomes. These are the incomes of those actually contributing to the production of goods and services; the aggregate is national income.

[2] *Ibid.*, p. 8.

Another measure, "personal income," is defined as follows:

> Personal income is the current income received by persons from all sources, inclusive of transfers from government and business but exclusive of transfers among persons. Not only individuals (including owners of incorporated enterprises) but nonprofit institutions, private trust funds, and private pension and welfare funds are classified as "persons." Personal income is measured as the sum of wage and salary receipts, other labor income, proprietors' and rental income, interest and dividends, and transfer payments.[3]

The difference between national income and personal income rests on both the source and nature of the income. National income is the aggregate earnings of both individuals and property resulting from the production of goods and services. Personal income is the sum of all income received by persons alone. It is not restricted to income earned in current production. Transfer payments, which consist of money income receipts of individuals for which no current services are rendered, are included in personal income. A pension paid by the government would be an example of a transfer payment since no service is currently rendered in return. Transfer payments are not included in national income, which includes only the income earned in production.

Personal income measures the total income received by individuals from all sources. It does not, however, tell us how much individuals have to spend. The tax collector has something to say about that. If we subtract tax payments from personal income, the difference is "disposable income." This is what individuals actually have to spend.

The levels of gross national product, national income, personal income, and disposable income are determined by both the physical rate of production of goods and services in the economy and by the price level. High prices tend to inflate income data and low prices to deflate it. Later in this chapter we shall show how different price levels can obscure the relationship between the physical volumes of goods and services produced in different years.

Income data are given in Table 6.

Measuring prices. As the student has already learned in his basic course in economics, the price level and changes in the price level are of great consequence in measuring economic activity. We know that

[3] *Ibid.*, p. 8.

Table 6. Gross National Product, National Income, Personal Income, and Disposable Income, 1929–1948

Year	*Gross national product (billions)*	*National income (billions)*	*Personal income (billions)*	*Disposable income (billions)*
1929	$103.8	$ 87.4	$ 85.1	$ 82.5
1930	90.9	75.0	76.2	73.7
1931	75.9	58.9	64.8	63.0
1932	58.3	41.7	49.3	47.8
1933	55.8	39.6	46.6	45.2
1934	64.9	48.6	53.2	51.6
1935	72.2	56.8	59.9	58.0
1936	82.5	64.7	68.4	66.1
1937	90.2	73.6	74.0	71.1
1938	84.7	67.4	68.3	65.5
1939	90.4	72.5	72.6	70.2
1940	100.5	81.3	78.3	75.7
1941	125.3	103.8	95.3	90.0
1942	159.6	136.8	122.2	116.2
1943	192.6	168.3	149.4	131.6
1944	212.2	183.8	164.5	145.6
1945	213.4	182.4	170.3	149.4
1946	209.3	179.3	178.1	159.2
1947	231.6	202.5	195.2	173.6
1948	254.9	224.4	213.6	192.6

Source: U.S. Department of Commerce.

prices rise and fall with the business cycle and that business planning is made more difficult by inability to forecast price movements with accuracy. Further, the businessman must contend with the fact that the prices of some commodities fluctuate more than those of others. Raw-material prices, for example, often move up and down faster than the prices of finished goods. Wholesale prices change more rapidly and in greater proportion, generally, than do prices near the consumer level.

There are many excellent indexes of prices. Some are issued by government agencies and others by trade associations or other private groups.

Some cover a wide range of items and are good measures of the general price level, while others are confined to prices of a few related commodities or even to one item. There are indexes of wholesale prices and of goods sold directly to the ultimate consumer.

One of the best regarded indexes of wholesale price is that prepared by the Bureau of Labor Statistics of the United States Department of Labor. This index is based on the assumption that prices in 1926 equaled 100. The monthly index covers 889 commodities and therefore is representative of wholesale prices in general. Separate indexes are prepared for the prices of various groups and classes of commodities. A weekly index of wholesale prices also is issued by the Bureau of Labor Statistics. In addition, separate indexes are available on a weekly basis for various classes of commodities.

The Department of Labor also prepares a monthly index of consumers' prices which has a 1935–1939 base. This index is called the *Consumers' Price Index.* It measures the cost of living of an urban family of moderate income.

Separate indexes are prepared for various classes of consumer expenditures, such as those for clothing, food, utilities, house furnishings, rent, and miscellaneous items. Separate cost-of-living indexes are prepared for various major cities. An excellent consumers' price index is also compiled by the National Industrial Conference Board on a quarterly basis. Base year of the Conference Board Index is 1923.

The extent to which prices fluctuate can be seen from Table 7.

Using price data. By making use of the vast amount of statistical data available to us, we can solve many problems. Often the conclusions we reach after correctly analyzing facts and figures are far different from those we might arrive at as the result of a superficial glance at some table of statistics. Let us give an example of how this applies to answering questions which arise in the day-to-day work of the economist. First, let us ask the question, Did consumers buy more in 1929, an all-out boom year, or in 1937, the crest of a feeble boom? Here are the Department of Commerce estimates of personal consumption expenditures in the two years:

1929	$78.8 billion
1937	$67.1 billion

Table 7. Price Changes, 1913–1948

Year	*Consumers' price index, 1935–1939 = 100*	*Wholesale price index, 1926 = 100*
1913	70.7	69.8
1914	71.8	68.1
1915	72.5	69.5
1916	77.9	85.5
1917	91.6	117.5
1918	107.5	131.3
1919	123.8	138.6
1920	143.3	154.4
1921	127.7	97.6
1922	119.7	96.7
1923	121.9	100.6
1924	122.2	98.1
1925	125.4	103.5
1926	126.4	100.0
1927	124.0	95.4
1928	122.6	96.7
1929	122.5	95.3
1930	119.4	86.4
1931	108.7	73.0
1932	97.6	64.8
1933	92.4	65.9
1934	95.7	74.9
1935	98.1	80.0
1936	99.1	80.8
1937	102.7	86.3
1938	100.8	78.6
1939	99.4	77.1
1940	100.2	78.6
1941	105.2	87.3
1942	116.5	98.8
1943	123.6	103.1
1944	125.5	104.0
1945	128.4	105.8
1946	139.3	121.1
1947	159.2	152.1
1948	171.2	165.0

Source: U.S. Bureau of Labor Statistics.

It would appear that consumers purchased 14.8 per cent less in 1937 than in 1929. But can we say "Q.E.D." and go on blandly to some other problem? True enough, the actual dollar expenditures totaled less in 1937 than in 1929, as our figures show. But how about the actual volume of goods that changed hands? A look at the consumers' price index (1935–1939 = 100) shows the following change in the prices paid by an urban family of moderate income:

1929	122.5
1937	102.7

In other words, since there was a substantial fall in prices between 1929 and 1937, this might make an important difference in our answer. The consumers' price index is not entirely satisfactory for making adjustments for price changes in such a varied assortment of goods as is represented by personal-consumption expenditures. In a rough way, however, it will serve, since it measures the price level at the point of final purchase. So now let us take another look at our data:

Table 8. Consumption Expenditure, 1929 and 1937

Year	*Prices, index*	*Consumption, current dollars (billions)*	*Consumption, 1935–1939 dollars (billions)*
1929	122.5	$78.8	$64.3
1937	102.7	67.1	65.3

Now we get an entirely different picture. Instead of decreasing by nearly 15 per cent, consumption actually increased by 0.6 per cent. However, the whole story has not yet been told. What if more goods actually were sold in 1937 than in 1929? Does that really mean that the average citizen of this country actually had more goods to enjoy in the moderately prosperous year of 1937? There is one thing we have not taken into consideration. Population increased 5.8 per cent between these years. So we really should examine per capita data if we are to get a true picture of the volume of goods and services purchased by consumers in each year. Here are the per capita figures:

Table 9. Per Capita Consumption, 1929 and 1937

	Current dollars	*1935–1939 dollars*
1929	$647	$528
1937	521	507

Now we see that neither our second impression nor our first one was correct. Our raw data did indeed show that purchases declined between 1929 and 1937, but the amount of the decline was exaggerated. Instead of being about 15 per cent, the decline for the average person was about 4 per cent after adjusting for both price changes and the increase in population. When we looked at the total figures, adjusted for price changes but making no allowance for the increase in population, we learned that the total flow of goods in real terms was slightly larger in 1937 than in 1929. But the increase in population more than offset this gain. As a result each individual actually had fewer goods, on the average, in 1937 than in 1929.

The money supply and the velocity of circulation. Considerable attention will be devoted in this book to money. We shall note how the supply of money varies throughout the business cycle and how the rate at which money is spent, or its velocity of circulation, changes. The student will find much data available in government and banking publications to assist him in following changes of the money supply. Among the best sources is the *Federal Reserve Bulletin,* a monthly publication of the Federal Reserve Board. In studying such data, the question arises as to what should be considered as money and what as merely substitutes for money. The line of demarcation is not sharp, unless it is drawn somewhat arbitrarily.

Demand deposits and currency outside banks are often used as the measure of our money supply. If we adopt this yardstick, we can learn from the *Federal Reserve Bulletin* that the money supply of the United States increased from $26,179,000,000 at the end of June, 1929, to $113,700,000,000 at the end of 1947. If we elect to regard total bank deposits and currency outside banks as the supply of money, the amount increased from $55,171,000,000 in 1929 to $168,900,000,000 at the end of 1947. If

we include government securities held outside banks in our money supply, the amount of money reached $333 billion in 1947. When people can turn government securities quickly into cash without loss, there is considerable justification for including them in the money supply. However, unless the government supports the price of its bonds at par, any general attempt to turn salable government bonds into cash will cause a sharp drop in their prices. E bonds, of course, can always be cashed on demand 60 days or more after the date of issue. Most of the increase in the money supply of the United States occurred during the war period. For example, the figure for December, 1947, showing $113,700,000,000 of demand deposits and currency outside banks, compares with the 1939 figure of $36,194,000,000.

In our chapters on banking, money, and government finance further explanation will be given for the rise in the money supply. Here we merely want to point out the sources of information and some of the actual amounts involved. It is obvious that such a tremendous increase in our money supply can be related to the inflationary dangers which will be mentioned at various points in the text. However, the inflationary impact of a nation's money supply does not depend alone on the actual amount of money available; it also depends on the rate at which money is being spent. One of the best measures we have of the rate of spending is the rate of turnover of bank deposits.

The *Federal Reserve Bulletin* contains data each month on debits to demand deposit accounts. Debits measure the value of checks cashed. If debits are compared with the amount of demand deposits, we have a measure of the rate at which demand deposits are circulating. For example, the rate of deposit turnover in 140 leading cities in 1947 was 12.0. This means that the total of debits, or checks cashed, was twelve times the average level of demand deposits in these 140 banking centers. Thus demand deposits were turned over approximately twelve times. Comparable data covering long periods of time indicate that this rate of turnover is considerably below that of the 1920's. The student interested in economic trends watches the monthly changes in bank-deposit turnover. We have no good measure of the rate at which currency and coin are spent.

Other measures of spending. Suppose we want to answer this question: Are people spending more or less than they were a year ago? This is a very important question for both the businessman and the economic

forecaster. The businessman will notice the effects of a change of spending by counting his daily receipts, but he may want to know whether only his particular business is affected or whether business in general is getting better or worse. There are various sources of information which can be used to answer this question.

The Department of Commerce makes monthly estimates of retail sales. For example, in lush 1948, December retail sales amounted to $13,194,000,000. In January, 1949, the total was only $9,418,000,000; but January, as everyone knows, is a poorer month for retail sales than December. The Department of Commerce, in the *Survey of Current Business,* also provides sales data for different types of retail stores. These data are given both in actual dollars and in the form of indexes. The Federal Reserve Board also publishes an index of department-store sales. One virtue of this index is its availability over a long period of time.

If we want to know the extent to which people are going into debt in order to buy goods and services, we have a good measure in the consumer-credit statistics published by the Federal Reserve Board. Total consumer credit, for example, amounted to $7,637,000,000 at the end of 1929, and to only $3,919,000,000 in 1933. However, by the end of 1947 it stood at $13,385,000,000 after rising from $6,638,000,000 at the end of 1945. The total consumer-credit figure is broken down into the various kinds of credit.

There are, of course, other excellent sources of information on the tempo of consumer spending. As we have noted, this type of information is of importance because it indicates business trends. If the rate of spending is falling, it may be a danger signal. If it is rising, it may indicate a period of current or coming prosperity. However, any careful interpretation would take full account of changes in the price level. Moreover, a rapid rise in buying on credit may be a warning of danger ahead. However, even this signal must be related to other magnitudes such as the price level, the level of employment, the money supply, disposable income, and the over-all level of sales.

Production indexes. Students of economics often need to know the rate of production in the present or at some past period. A number of excellent indexes of industrial production are available, but the best known in the United States is the Federal Reserve index of industrial production. This index, based on the average 1935–1939 level of output, is designed to measure the rate of production in physical terms. It covers

only manufacturing and mining. In addition to the composite index, which is available monthly either with or without adjustment for seasonal variation, separate indexes are reported for durable and nondurable goods. Also separate indexes are compiled for various kinds of manufactured and mineral products.

The Federal Reserve index of industrial production long has been regarded as one of the chief barometers of economic activity in the United States. Industrial production, of course, rises and falls with the business cycle. Due to the growth of the nation there is an upward trend in the index. Thus the student must be alert not to regard the base period as "normal." As an example, the level of the index in 1929, one of the greatest boom years in the history of the nation, was 110. However, the economy of the United States has grown so rapidly since that time that a level of 110 in the Federal Reserve index would now mean an acute depression, instead of a boom as was the case in 1929. In fact, we probably would consider ourselves in a depression if the index fell to even 140 or 150. In order to allow for the growth factor, some indexes have a trend line as their base. An example is the index of American industrial activity compiled by the Cleveland Trust Company.

In order that the student may note how the Federal Reserve index fluctuates from boom to depression, the yearly levels of the index are given in Table 10, for the period from the end of World War I through 1948.

Several facts should be noted in connection with Table 10. The rate of production of durable goods fluctuates more than the output of nondurables. This is to be expected since the index of nondurables covers the production of certain processed foodstuffs, clothing, shoes, and other necessities, the consumption of which must continue in some degree regardless of the economic climate. On the other hand, the index of durable manufactures covers production of many postponable items, the purchase of which can be delayed if incomes are low or if they are expected to decline.

Fluctuations in the index of industrial production from 1919 to 1948 indicate the scope and timing of the business cycles which developed during the period. In a subsequent chapter, the problems of the business cycle will be discussed in detail. However, certain historical developments may be noted in Table 10. The postwar boom in 1920 following

Table 10. Federal Reserve Indexes of Production, 1919–1948

(1935–1939 = 100)

Year	*Composite index*	*Manufacturing, total*	*Manufacturing, durables*	*Manufacturing, nondurables*	*Minerals*
1919	72	72	84	62	71
1920	75	74	93	60	83
1921	58	56	53	57	66
1922	73	74	81	67	71
1923	88	86	103	72	98
1924	82	81	95	69	89
1925	90	90	107	76	92
1926	96	95	114	79	100
1927	95	94	107	83	100
1928	99	99	117	85	99
1929	110	110	132	93	107
1930	91	90	98	84	93
1931	75	74	67	79	80
1932	58	57	41	70	67
1933	69	68	54	79	76
1934	75	74	65	81	80
1935	87	87	83	90	86
1936	103	104	108	100	99
1937	113	113	122	106	112
1938	89	87	78	95	97
1939	109	109	109	109	106
1940	125	126	139	115	117
1941	162	168	201	142	125
1942	199	212	279	158	129
1943	239	258	360	176	132
1944	235	252	353	171	140
1945	203	214	274	166	137
1946	170	177	192	165	134
1947	187	194	220	172	149
1948	192	198	225	177	155

Source: Federal Reserve Board.

World War I and the subsequent slump in 1921 are shown. The minor setbacks in 1924 and 1927 also are indicated by the Federal Reserve indexes in Table 10. The peak of prosperity following World War I was reached in 1929; then followed the great depression of the 1930's with a catastrophic fall in the production of all kinds of goods. The bottom of the depression was in 1932, as indicated by the annual data, although monthly figures would show the level of output almost as low in early 1933. The next crest was reached in 1937, followed by the relatively mild setback of 1938. The 1938 recession, which at first appeared to be heading for a full-fledged depression, was arrested by the European rearmament program. Subsequently, the outbreak of World War II brought about feverish productivity all over the world.

In the current postwar period the course of developments has been an interesting one. In 1946, the Federal Reserve indexes declined sharply from the wartime peak, but they remained far above any prewar levels. Following the reconversion period, a replenishment boom began like that after the First World War, and continued until the autumn of 1948.

Keeping in touch with changing economic conditions. Economic magnitudes are, as already indicated, a means of measurement. As such they have two functions. In the first place they are used by the businessman and the professional economist for keeping in touch with the constant procession of economic events. In the second place, they serve as a means of forecasting. No forecasts of future events can be made with a high degree of assurance that they will come to pass exactly as predicted. The careful student of trends, however, often can tell with considerable reliability how economic events are unfolding and therefore what can be expected to happen in the period ahead if no entirely new factor comes into the picture. Forecasting, however, includes more than a mere study of trends. A knowledge of economic history is essential, as is also the ability to appraise the significance of news events as they are divulged; and in a period like the present, when government is such a powerful force in economic life, the forecaster must keep in touch with government policies.

Let us take an example of the use of economic magnitudes in making a forecast. Our illustration will also show how a forecast must be tempered by other information not revealed in the statistics.

Let us start in a peacetime period when manufacturers' shipments are at a very high level as indicated by the monthly reports of the Depart-

ment of Commerce. The Federal Reserve index of production, we shall assume, is also close to record high levels for peacetime. From the quarterly earnings reports of corporations we can tell that profits are at a high level; and dividends, reported in the financial press, are also large. An analysis of the production data indicates that the output of durable goods is making a particularly strong showing. Output of nondurables also is high, but off a little from recent peaks. Employment figures, as reported monthly by the Census Bureau, indicate that almost everyone in the labor force has a job. There may, of course, be 2.5 million unemployed, but this is a very low figure for our labor force of more than 60 million persons. We note from the Department of Commerce reports that exports are at almost record value but that imports of goods and services are below exports. Retail-store sales, as indicated by Department of Commerce data and the Federal Reserve index of production, are large but are not making spectacular gains over a year ago. At least, the gains are not as sharp as a few months earlier. The consumers' price index is at a new all-time high, and we can tell from our own pocketbooks that the cost of living has soared. Merchants with whom we talk tell us that consumers are complaining of the high cost of living. We have another clue to the pressure of living costs, if we note that the lower priced stores, like food chains, big mail-order houses, and basements of department stores, are showing the best gains in sales. Estimates of construction by the Department of Commerce and by private agencies show that building is going on at a fast pace. However, contractors tell us that price resistance is mounting. New contract awards are not quite so large as they have been.

On the whole, our data indicate that the nation is enjoying a boom of the first magnitude. There are, however, several factors which cast doubt on the future. The sluggish showing of retail stores is one; another is the fact that most of the steam in the production indexes is in the durable group. Talk of price resistance in numerous areas also makes us wonder. To check our impressions we decide to examine data on new orders which we can find reported by various government and private agencies. We see that incoming orders have been heading downward at a fast rate. A further check shows us that the rate of incoming orders for many businesses has fallen below the rate of shipments. This is a clear-cut warning signal of trouble ahead, although a fall in production may be postponed by large backlogs. We also note, after a

careful check, that our excess of exports has been eating up the dollar exchange of our foreign customers. They have been buying more from us than we have from them. This cannot last, so we can feel rather sure that our high level of exports will not continue indefinitely.

Clearly, we have unearthed significant information which warns us of a storm ahead, even though everything appears highly prosperous on the surface. The time is approaching when foreign and domestic buyers will not wish, or will not be able, to buy the goods that are being produced. If we wish further information, various crop forecasts, weighed in the light of other developments, will give us an indication of the probable course of agricultural prices. This will permit us to make an estimate of the probable buying power of the rural areas.

Are there other factors which must be considered? We note that Congress has committed the country to a heavy rearmament program. It also is observed that foreign aid in the form of loans to the western democracies is being considered. At the same time income taxes have been substantially reduced. Our problem now is to appraise all of the factors which enter into the situation. If we feel that tax reductions, government spending, and foreign lending may prove to be a large stimulant, we can reason that the depression we have seen in the offing may be postponed. We also may reason that private individuals, both consumers and businessmen, may step into the picture and buy heavily in anticipation of shortages induced by the rearmament and foreign-aid programs. This stimulant might be even greater than the aggregate of the spending for armament and foreign aid.

Our illustration should make it quite obvious to the student that many considerations enter into the formulation of business forecasts. The intelligent use of economic magnitudes is a first essential, but the forecaster must also use his knowledge of economic theory and his perception of the trend of political events. Otherwise his predictions are likely to go far astray.

Conclusions

An attempt has been made in this chapter to establish a very important point in the mind of the student, namely, that a knowledge of certain standards of measurement is necessary if an intelligent approach to the solution of economic problems is to be made. We need tools to tell us the present status of our economy and to permit comparisons with past

periods. We must have the means of knowing whether economic activity is increasing or declining. Though the student of economics may not always be a thoroughly trained statistician, it is absolutely essential that he should understand and be able to use a few basic economic magnitudes.

The point was also made, however, that in our modern economy there are certain psychological factors which are beyond the scope of statistical measurement. These too influence the changing tempo of economic activity. An intelligent use of economic magnitudes will permit the measurement of economic changes but will not necessarily make it possible to forecast them. Moreover, our economy is now greatly influenced by government, and policies formulated in Washington may cause quick shifts in our indexes of economic activity.

The psychological factor, as a determinant of changes in economic activity, is one of the most interesting and most important of the phenomena that confront the professional economist. Often waves of optimism or pessimism sweep the country and have an important impact on economic activity. The influence of the psychological factor will be explored further in our chapter on business cycles, but the point emphasized in the present chapter is that the careful use of economic magnitudes permits the economist to discover quickly any changes in the economic situation. However, economic changes due to psychological causes are difficult to forecast, and making forecasts purely on the basis of trends indicated by statistical measurement involves considerable risk.

We shall use economic magnitudes throughout this book. In the chapter on population and resources we have already made use of various magnitudes in the measurement and projection of population trends and of the use and rate of consumption of various natural resources. Our next chapter deals with business cycles, and we shall build our discussion of these around what our economic magnitudes tell us of present and past changes in economic activity. Later we shall employ statistical data in our study of money and banking problems. So it will go throughout the text.

Review Questions

1. What is an economic magnitude? Why are economic magnitudes useful devices for economists?

2. Suggest some current economic questions that can best be solved through use of appropriate economic magnitudes.

3. List the principal sources of economic data.

4. What major groups comprise gross national product?

5. What are the components of gross private investment?

6. What is the definition of national income?

7. What is personal income? Distinguish carefully between personal income and national income.

8. What indexes can we use to measure prices?

9. Why do we give considerable attention in economics to the money supply and the velocity of circulation of money?

10. Describe the Federal Reserve index of production. Study Table 10 carefully. Which index fluctuates the most? Can you suggest a reason?

Problems

1. Did the cost of living, as measured by the consumers' price index, increase more during the First World War or the Second World War? During which of the two periods did wholesale prices rise most? Include the entire period of both wars, that is, from 1914 and from 1939. Would your answer be the same if you considered only the years when the United States was an actual participant?

2. Go to any reference library and find the following information:

a. The peak month for industrial production as measured by the Federal Reserve composite index, during the 1937 boom; also the subsequent low of the 1938 depression.

b. The high and low years for residential construction during each of the last four decades.

c. The merchandise imports and exports of the United States, by months, for the first three years after each of the two World Wars. Start with November, 1918, and August, 1945.

d. The amount of time deposits on June 30 of each year during the great depression. Include the years 1929 to 1937 in your study.

e. The expenditures for producers' durable equipment in the years 1937 and 1938. This can be found in statistics on gross national product in the *Federal Reserve Bulletin.*

f. The monthly dollar value of contracts awarded for construction of factories in 1947 and 1948.

3. Make a graph of department-store sales covering the years 1919 to 1948. Use the horizontal axis to denote years. Use the vertical axis for the Federal Reserve index of department-store sales.

4. Make a graph showing the level of national income in each of the years 1929 to 1948. Plot years on the horizontal axis and national income on the vertical axis.

Suggested Readings

Construction, Bureau of Labor Statistics, United States Department of Labor, Washington, D.C. Issued monthly.

Current Population Reports, Labor Force, Bureau of the Census, Department of Commerce, Washington, D.C. Issued monthly.

"Economic Almanac," National Industrial Conference Board, Inc., New York. Published annually.

Employment and Payrolls, Bureau of Labor Statistics, United States Department of Labor, Washington, D.C. Issued monthly.

Federal Reserve Bulletin, Board of Governors, Federal Reserve System, Washington, D.C. Issued monthly.

The Handbook of Basic Economic Statistics, Government Statistics Bureau, Washington, D.C. Issued monthly.

Monthly Labor Review, Bureau of Labor Statistics, United States Department of Labor, Washington, D.C.

Standard and Poor's Trade and Securities Statistics, Standard and Poor's Corporation, New York. Issued monthly.

"Statistical Abstract," United States Department of Commerce, Washington, D.C. Published annually.

Survey of Current Business, Bureau of Foreign and Domestic Commerce, Department of Commerce, Washington, D.C. Issued monthly.

PART TWO

Economic Stability

If we eliminate war on the ground that it is not primarily an economic problem, our greatest economic problem is the business cycle. All the remaining chapters in the book relate, in some degree, to the problem of reducing cyclical fluctuations of business activity. Part Two, however, deals primarily with the indirect controls that might be employed to stabilize the economy as a whole. By indirect controls is meant those that would not directly interfere with the management of individual business enterprises. Such controls consist largely of the application of monetary, credit, and fiscal policies. In Part Two, therefore, a general discussion of the business-cycle problem is followed by chapters on Monetary Stability, Banking Problems, Public Finance, and The Public Debt and Fiscal Policy.

Throughout Part Two, however, it must be kept in mind that we wish to do more than achieve stability. *We also wish to preserve or create the conditions essential for making* economic progress *in order that we may raise standards of living. However, if our economy should become rigid, or static, progress would be impossible. It follows that if we are to continue to make economic progress we must not sacrifice economic* flexibility *in our attempts to achieve economic stability.*

5. Business Cycles

Fluctuations in the rate of economic activity. Our study to this point has been concerned with an analysis of the conditions which must prevail if our economy is to be both progressive and reasonably stable. We have already noted, however, that one of the characteristics of our economy is variations in the tempo of activity. We saw proof of this in our study of the economic magnitudes discussed in the preceding chapter. Sometimes there is great activity; in other periods the pace slows to a very low tempo, and stagnation appears almost everywhere.

However, various segments of the economy may perform in different ways during the same periods. Even in times of great over-all activity, there are some industries or occupations which find themselves in distress. In the 1920's, for example, our economy was exceedingly active. Yet during this period the low level of agricultural incomes was a problem in the United States.

The Business-cycle Problem

Business cycles are wavelike movements of economic activity as a whole, marked by successive periods of rise and fall. They are a major source of a number of our most difficult economic problems, such as numerous business failures, budgetary deficits, and mass unemployment. If we could eliminate business cycles, or reduce their amplitude, some of our other economic problems would largely disappear.

No subject is more significant than the business cycle if we are to attain a reasonable degree of security while at the same time making economic progress. As far back as we have records, rhythmic movements in all phases of life have been observed. Movement, of course, is necessary if progress is to be made. It is not, therefore, movement or variation per se that creates problems, but rather movements of an undesirable nature, like the contraction of production and employment which

occurs in the downswing of a business cycle. The seriousness of such undesirable movements depends largely on their amplitude and on their duration.

In this chapter it will be our purpose to study the business cycle and to evaluate some of the more common suggestions for preventing the fluctuations of our economy from becoming too severe. Some of the proposals suggested will be considered in more detail in later chapters.

Increasing importance of the problem of cyclical fluctuations. During the last half century economists, business leaders, and government officials have been giving more and more attention to the problem of the business cycle. They have observed with concern what appears to be an inherent and increasing instability in our highly industrialized economic system. They have also observed that no single nation appears to be able to immunize itself against the business cycle. A major depression, once it starts, quickly spreads throughout the civilized world.

In the report of the Delegation on Economic Depressions of the League of Nations, the tendency of economic instability to increase was summarized as follows: "As industrialization progresses and a greater proportion of the total productive forces of any country is devoted to the manufacture of capital goods, the instability of the economic system increases, depressions are liable to become more intense, and the risk of unemployment becomes more serious." [1]

One of the intriguing and challenging things about the business cycle is that we have not yet reached a full understanding of its causes. Later in this chapter we shall call attention to some of the explanations offered by leading economists. There is no explanation, however, that is accepted by all as completely accounting for the cycle. It is probable that there is no single or simple explanation, and that the rhythmic rise and fall of economic activity result from a multiplicity of causes. As the Council of Economic Advisers pointed out in its 1946 report, circumstances may combine in a great number of ways to cause a fall in production and employment at any given time.

Though the causes of the business cycle are many, there is one factor on which special emphasis should be placed, namely, changes in the rate of investment. The demand for capital goods fluctuates much more

[1] "Economic Stability in the Post-war World," Report of the Delegation on Economic Depressions, Part II, League of Nations, 1945, p. 25.

than the demand for consumers' goods. In periods of business recovery the major factor behind the rise of employment and income is an increase in investment which brings about an increase in the output of capital goods. Conversely, in a period of business recession the major factor accounting for economic contraction is a decline in investment and a resulting decline in the output of capital goods. Later in this chapter we shall explain more fully the part which investment plays in contributing to economic instability.

Economic effects of the business cycle. Many figures and graphs may be cited to show the amplitude and timing of business cycles. The fact remains, however, that figures do not record the whole story of the cycle. The standard of living of millions of persons, as well as their personal hopes and aspirations, is affected vitally by the violent swings of economic activity back and forth from boom to depression. Personal fortunes, jobs, lifetime savings, and endowments for worthy institutions may be swept away in a depression. The businessman, conscientious and diligent, may be engulfed in the sweep of economic events quite beyond his power to control. Through no fault of his own, his business may be destroyed in a general decline of economic activity.

During the business cycle, a wavelike fluctuation occurs in the rate of production, in prices, and most important of all, in employment. "Help Wanted, Apply Within" signs hang on every factory door during the height of the boom. Everyone has a job, wages are high, sellers of luxury goods do a rushing business, and we all feel the pinch of the rising cost of living. It is quite the opposite during a depression. The signs on the factory doors now read, "No Help Wanted." Prices fall, sometimes catastrophically, and business concerns suffer losses from the declining value of inventories. Wage rates recede, the cash registers in the stores ring too infrequently, factories close, and breadlines form.

A few figures tell the story of what happens during the business cycle. Whereas in 1929 there were less than 3,000,000 persons unemployed, there were more than 14,000,000 without jobs in 1933. In 1929 the level of wholesale prices stood at 95.3 (1926 = 100); in 1933 it had fallen to an average of 65.9, a decline of 30 per cent. Whereas national income was $87.2 billion in 1929, it was only $42.2 billion in 1932. No wonder that the business cycle is regarded as one of the major problems of our time!

Some further idea of the vast fluctuations which occur in American economic activity can be obtained from the yearly aggregates of gross national product and of consumer expenditures for goods and services. Table 11 shows fluctuations in these two items during the period 1929 to 1948.

Table 11. Gross National Product and Consumer Expenditures, 1929–1948

(*In billions*)

Year	*Gross national product in current dollars*	*Consumer expenditures in current dollars*	*Consumer expenditures in 1939 dollars*
1929	103.8	78.8	64.3
1930	90.9	70.8	59.3
1931	75.9	61.1	56.2
1932	58.3	49.2	50.4
1933	55.8	46.3	50.1
1934	64.9	51.9	54.2
1935	72.2	56.2	57.3
1936	82.5	62.5	63.1
1937	90.2	67.1	65.3
1938	84.7	64.5	63.9
1939	90.4	67.5	67.9
1940	100.5	72.1	71.9
1941	125.3	82.3	78.2
1942	159.6	90.8	77.8
1943	192.6	101.6	82.2
1944	212.2	111.4	88.7
1945	213.4	122.8	95.7
1946	209.3	147.4	105.8
1947	231.6	164.8	103.5
1948	254.9	177.7	102.5

Source: U.S. Department of Commerce.

Fluctuations in gross national product, or the money value of all goods and services produced, were substantial during the period covered by the table. Although the changes in consumer expenditures were not quite so great, they also were important. Data for the period 1942 to 1945 are hardly significant, because of wartime factors. The war caused

a spurt in gross national product, but at the same time it prevented consumer expenditures from expanding in anything like the same proportion. As every consumer remembers, acute shortages curtailed the opportunity for spending during the war years.

A substantial portion of the fluctuation in gross national product indicated in Table 11 results from price changes. In other words, the physical quantities of goods and services produced did not change so much from year to year as the dollar figures would indicate. We can see this if we compare the actual year-to-year changes in consumer expenditures with the changes which remain after we eliminate fluctuations in the value of the dollar. We eliminate these fluctuations in column 4, by showing year-to-year changes in consumer expenditures in terms of dollars which always have the same purchasing power as the 1939 dollar.

The Nature of Business Cycles

Phases of the business cycle. In the next few pages we shall try to develop further our definition of busines cycles. Already we have said that business cycles are wavelike movements in economic activity. During these wavelike movements, employment, consumer expenditures, production, and investment rise and fall. We can measure the level of these factors at any particular phase of the cycle either by means of index numbers or by comparing their aggregate absolute values in particular years with their aggregate values in some year, such as 1926, which is generally regarded as "normal."

In general, we can say that a cycle has four principal phases, although we shall see in a subsequent section that careful students have elected to subdivide these phases further for more detailed study. The four phases are: [2]

1. The upswing (prosperity, expansion).
2. The downswing (depression, contraction).
3. The upper turning point, that is, the turn from prosperity to depression.
4. The lower turning point, that is, the turn from depression to prosperity.

[2] Haberler, Gottfried, "Prosperity and Depression," League of Nations, Geneva, 1941, pp. 268–269.

The mechanics of business cycles. Two methods of approach seem open to us in our detailed examination of the mechanics of business cycles. The first is to recognize only one type of business cycle regardless of the easily demonstrated fact that individual cycles vary greatly in amplitude and duration. The second is to classify business cycles according to intensity and duration. Much scholarly research has been devoted to the development of both methods, and we will understand the cycle better if we look at the results attained by both techniques.

Professor Mitchell, long recognized as a careful student of business cycles, gives us a definition which is most useful if we elect to adopt the first technique. This definition follows: [3]

> Business cycles are a type of fluctuation found in the aggregate economic activity of nations that organize their work mainly in business enterprises; a cycle consists of expansions occurring at about the same time in many economic activities, followed by similarly general recessions, contractions, and revivals which merge into the expansion phase of the next cycle; this sequence of changes is recurrent but not periodic; in duration business cycles vary from more than one year to ten or twelve years; they are not divisible into shorter cycles of similar character with amplitudes approximating their own.

This definition is the point of departure for the excellent study of cycles published by the National Bureau of Economic Research in 1946 under the title "Measuring Business Cycles," by Arthur F. Burns and Wesley C. Mitchell. As pointed out by the authors of "Measuring Business Cycles," Professor Mitchell's definition raises many questions and perhaps implies greater preciseness in the various movements from phase to phase of the business cycle than really exists. However, the definition is extremely useful and deserves careful study by those who desire a thorough understanding of the up-and-down movements of economic activity.

In "Measuring Business Cycles" and in another 1946 business-cycle study, "Price-Quantity Interactions in Business Cycles," by Frederick C. Mills, also published by the National Bureau of Economic Research, certain "reference cycles" are established. These cycles were determined through analysis of various economic data and are useful, both in regard

[3] MITCHELL, WESLEY C., "Business Cycles: The Problem and Its Setting," National Bureau of Economic Research, Inc., New York, 1927, p. 468.

to the timing of particular cycles, and for study of exactly what happens to various kinds of economic activity as the cycle progresses from one stage to another.

In "Price-Quantity Interactions in Business Cycles," Dr. Mills uses the following reference cycles, which he discovered by examining many economic series covering the period 1858 to 1938.[4]

Table 12. Business Cycles

Trough	*Peak*	*Trough*
December, 1858	October, 1860	June, 1861
June, 1861	April, 1865	December, 1867
December, 1867	June, 1869	December, 1870
December, 1870	October, 1873	March, 1879
March, 1879	March, 1882	May, 1885
May, 1885	March, 1887	April, 1888
April, 1888	July, 1890	May, 1891
May, 1891	June, 1893	June, 1894
June, 1894	December, 1895	June, 1897
June, 1897	June, 1899	December, 1900
December, 1900	September, 1902	August, 1904
August, 1904	May, 1907	June, 1908
June, 1908	January, 1910	June, 1912
June, 1912	January, 1913	December, 1914
December, 1914	August, 1918	April, 1919
April, 1919	January, 1920	September, 1921
September, 1921	May, 1923	July, 1924
July, 1924	October, 1926	December, 1927
December, 1927	June, 1929	March, 1933
March, 1933	May, 1937	May, 1938

A glance down the middle column in the above table will disclose that the elapsed time from peak to peak varies considerably from cycle to cycle. However, other students using the same or similar data might offer slightly different months for the crests and depressions for each cycle and thus get still different time spans. Turning points in economic series are often not so clear-cut as the table would indicate.

[4] MILLS, FREDERICK C., "Price-Quantity Interactions in Business Cycles," National Bureau of Economic Research, Inc., New York, 1946, p. 8.

The cycle studies of the National Bureau of Economic Research divide each reference cycle into nine stages. Stage I is the initial trough, stage V the peak, and stage IX the terminal trough. Stages II, III, and IV mark off successive thirds of the expansion phase of each cycle, and stages VI, VII, and VIII mark off successive thirds of the contraction.[5] Thus, whatever the duration of a particular cycle, it can be compared with all other cycles through comparison of the stages. Of course, the same stage of different cycles may have different durations.

As a result of this technique, some significant studies of what happens at different stages of the cycle are made possible. For example, Dr. Mills presents a comparison of price, quantity, and value movements of pig iron during the nine phases of the cycle. Using index numbers based on the average of quantity, price, and aggregate value of pig iron, he combines the nine business cycles which occurred between August, 1904, and May, 1938, in order to show the relative changes in each of the indexes named. The relative movements are shown in the following table:

Table 13. Aggregate Movements of Unit Price, Physical Volume, and Aggregate Value of Merchant Pig Iron Produced, Nine Business Cycles, 1908–1938 *

	Reference cycle stages								
	I	II	III	IV	V	VI	VII	VIII	IX
Price.....	85	88	97	112	118	114	105	94	90
Quantity....	75	86	102	120	133	132	106	76	65
Value.....	63	75	95	130	151	145	107	72	59

* MILLS, FREDERICK C., "Price-Quantity Interactions in Business Cycles," National Bureau of Economic Research, Inc., New York, 1946, p. 9.

This study demonstrates the fact that the quantity of pig iron fluctuates much more than the price during the various stages of the cycle. Value naturally fluctuates through wider ranges than either price or quantity. Similar studies have been made for many other commodities.

[5] *Ibid.*, p. 8.

Usually the quantity of a commodity produced fluctuates more during a cycle if the price remains rigid than if the price is flexible or free to fluctuate.

How business cycles vary from one another. Despite the fact that all business cycles have some common characteristics, it remains true that some individual cycles are more severe than others. For example, the majority of businessmen and employees barely noticed the recessions of 1924 and 1927. Unemployment did not reach large proportions. Prices and production of most commodities held up well. The story, however, was very different in 1921, 1933, and 1938. Particularly in 1933, and to a lesser extent in 1921 and 1938, there was much unemployment, sharp declines in prices, and much human misery.

Any student of business cycles is impressed by these differences in the amplitude and duration of cycles. Furthermore, the careful student notes that important booms and depressions occur with some degree of regularity, although, as we shall see, the actual duration of these major fluctuations may vary over a range of several years. The minor ups and downs of business occur much more frequently. Many students of business cycles believe that three types of cycles can be discerned. These are what we shall call major cycles, minor cycles, and long cycles. Each will be examined in turn.

Major cycles. Our attention in this chapter will be for the most part focused on what we shall call major cycles. These are the business fluctuations which most persons mean when they use the term business cycle, and they are the type of cycle which most influences the activities of businessmen. Major cycles average between 8 and 9 years from boom to boom, but vary from 6 to 12 years. An example of a complete major cycle is the period from the boom of 1920 to the boom which reached a peak in 1929. Another was, perhaps, the cycle from 1929 to the mild boom of 1937. Between 1929 and 1937 occurred the great depression, well remembered for its human suffering and fearful destruction of values.

The major cycle has been traced by many eminent students. Alvin Hansen has found that the major cycle in the United States has an average duration of a little more than 8 years. From 1795 to 1937 he found that there were seventeen major cycles of an average duration of 8.35 years. In the 100-year period, 1837 to 1937, there were twelve

major cycles of an average duration of 8.33 years. In the 80-year period from 1857 to 1937 there were ten major cycles of an average duration of 8.0 years. And in the period from 1873 to 1937, there were eight major cycles of an average duration of 8.0 years. With rare exceptions, these cycles fell within a range of 7 to 10 years, although the shortest cycle was 6 years and the longest was 12.

Minor cycles. In contrast to the major cycle, the minor cycle of approximately 40 months' duration has been noticed by economists in the United States and other countries. Joseph Kitchin, an Englishman, in 1923 showed the existence of a cycle of approximately 40 months in bank clearings, interest rates, and wholesale prices for both Great Britain and the United States. Kitchin's study covers the period 1880 to 1922.

Professor W. L. Crum also published in 1923 an analysis of monthly commercial paper rates in New York during the period 1866 to 1922, showing a periodicity of roughly 40 months in the series. Professor Mitchell found in five American systematic series, cycles which had a mean duration of 42.05 months. The median duration was 40 months.

Hansen also has discerned the minor cycles. He found that in the 130-year period, 1807 to 1937, there were thirty-seven minor cycles with an average duration of 3.51 years. In the 80-year period, 1857 to 1937, there were twenty-three minor cycles with an average duration of 3.48 years. From 1890 to 1937 there were fourteen minor cycles with an average duration of 3.36 years.

Thus there are one to two peaks of minor cycles occurring between peaks of major cycles. Minor cycles have little effect on the day-to-day operations of most businesses. Some businesses, particularly heavy industries and certain kinds of consumer durables, are very sensitive to cyclical movements of even the minor variety. But firms which sell basic foods, low-priced clothing, and shoes may hardly be aware of minor troughs in business activity.

The student should understand that the boom and depression phases of minor cycles can occur in either the rising or falling phase of the major cycle. In the rising phase of the major cycle, the booms of the minor cycle will be more buoyant and the troughs less evident. The reverse will be true in the declining phase of the major cycle when depression periods of the minor cycle will be more severe and the booms less pronounced.

Long cycles. Another type of cycle deserves our attention, although it probably has little effect on the planning of most businessmen. It is called the "long cycle." N. D. Kondratieff, a Russian economist, brought this cycle to the attention of economists in an article entitled "Die langen Wellen der Konjunktur," published in *Archiv für Sozialwissenschaft,* December, 1926.

The long cycle appears to have a duration of around 60 years. Good times are more prevalent during the rising phase of the long cycles and bad times during the falling phase. Hansen assigns the following dates to these periods of good and bad times.[6]

Good Times	*Bad Times*
1787–1815	1815–1843
1843–1873	1873–1897
1897–1920	1920– ?

In the United States, the last period of good times extended to 1929, although American agriculture was in an unfavorable situation after 1920. When should the following period of hard times be expected to end? If we take 1920 as the beginning of the downswing of the long cycle, the period of bad times should have ended between 1945 and 1950. The end would come somewhat later if we take 1929 as the starting date. Could the Second World War have altered the timing? We can answer this question only after the sequence of economic events has unfolded for another decade.

Hansen has found that in each of these long periods of good times there developed four major recoveries and three major depressions. In the downswings of the long cycles there occurred two major recoveries and three major depressions. However, we do not have data on long cycles over a sufficient period of time to judge their true significance. Our data cover only two or three of these cycles, and their relative regularity, or even their existence, may have been a historical accident. In recent years economists have reported the existence of long waves in various types of economic data. Much research still remains to be done in this field.

[6] HANSEN, ALVIN H., "Fiscal Policy and Business Cycles," W. W. Norton & Company, Inc., New York, 1941, p. 30. Hansen's data on cycles of various types are presented throughout Chap. 1. See also SCHUMPETER, JOSEPH A., "Business Cycles," McGraw-Hill Book Company, Inc., New York, 1939, particularly Chap. 4.

Thus it appears that minor cycles are interposed on the upswings and downswings of the major cycles. In turn, major cycles are, perhaps, interposed on the upswings and downswings of long cycles.

Special cycles. There are numerous kinds of special cycles which can be found in particular kinds of economic series. One of the most important is the building cycle which seems to have a duration of approximately seventeen years. This cycle is of major consequence for many businesses which directly or indirectly benefit from prosperity in the construction industry. As a matter of fact, most businesses benefit from activity in the construction industry even if not directly engaged therein. Railroads, for example, haul materials, the steel industry makes certain kinds of structural shapes, and even the corner grocer feels the stimulus of the fat pay envelopes of construction workers.

Cycles of varying amplitude and duration occur in the production of certain crops. Other special cycles can be found in various price series. As a matter of fact, the presence of definite cycles in many types of economic series seems to be a major characteristic of our economic life. In addition, there are clear-cut cycles in certain types of natural data, including the weather. Cycles in weather have important repercussions on economic activity. Interesting studies have been made, for example, on the relationship between climatic cycles and migration.[7]

Internal and External Causes of the Business Cycle

We have already noted that there is no simple explanation of the business cycle and no single cause. The factors which contribute to cyclical fluctuations are many. Our problem is to examine the various explanations which have been suggested, and to determine the contribution which each makes to an understanding of the business cycle.

The factors which contribute to cyclical fluctuations of business can be divided into two groups. Those in one group are called "external causes"; those in the other group are called "internal causes." By external causes we mean factors which are wholly or partly independent of the kind of economic system which we have. These external causes of business fluctuations could be expected to operate under any kind of

[7] For a nontechnical discussion of this subject and many other interesting topics relating to cycles of various kinds, see Huntington, Ellsworth, "Mainsprings of Civilization," John Wiley and Sons, Inc., New York, 1945.

economic system. They include natural phenomena like earthquakes, hurricanes, and cycles of good and bad crop years. They also, presumably, include wars in so far as wars influence the timing and amplitude of cycles. By internal causes of cyclical fluctuations we mean factors which operate only because we have a particular kind of economic system. For example, we have today an economy in which bank deposits play an important role as a medium of exchange. Because of the nature of our banking system, these deposits are subject to periods of alternate expansion and contraction. This serves to intensify the expansion or contraction of the total demand for goods, and hence it contributes to fluctuations of production and employment.

Some writers argue that we would not have business cycles at all if it were not for the operation of external, or as they are sometimes called, "originating causes." This may or may not be true. In any case it need not concern us too much. External disturbances are always present and are always exerting their effects on the level of business activity. Undoubtedly, the number, nature, and intensity of such disturbances account in large part for the great variations between cycles. The question, however, is whether these external causes explain the cyclical nature of business activity. No very convincing evidence has been presented to show that they do. To understand the nature of business cycles, and why we have them at all, we must give most of our attention to the internal causes. That is to say, we must study the structure and functioning of the economic system itself, and the peculiar ways in which it reacts to disturbance by outside forces.

External causes which affect business activity are, for the most part, beyond our control. It follows that if cyclical fluctuations were primarily a result of these causes they would be extremely difficult to regulate. If, however, cyclical fluctuations are chiefly the result of internal causes, control may be less of a problem. By making appropriate adjustments within our economy, we may be able to modify the cycle or at least eliminate some of its harmful effects.

It is unlikely that we can entirely eliminate the cycle. Our real problem is, How can we reduce the business cycle to minor proportions by smoothing the extreme peaks and valleys? We shall now classify and analyze the main theories of the causation of business cycles, in order that later we may be in a better position to pass judgment on the value of proposed solutions.

Explanations of the Business Cycle in Terms of External Causes

The sunspot theory. According to one group of writers business cycles result from periodic fluctuations in the number and size of sunspots. These spots, it is argued, affect the weather. This in turn causes crop yields to fluctuate, and a fluctuation in crops affects the entire economic system, causing increased or decreased business activity.

Another version of this theory is that changes in atmospheric conditions, influenced by sunspots, have a biological influence on the attitudes and emotions of individuals. At times this influence causes waves of optimism and at other times it induces pessimism. These alternating waves affect business activity, thus causing booms and depressions.

The theory that variations in solar radiation result in economic cycles is not new. Recently, it has been popularized in several books that have been widely read. A definite similarity can be noted between cycles of solar radiation and economic activity, and a few competent scholars have devoted considerable time to this subject. However, most economists rule out sunspots as a cause of the business cycle.

Emphasizing the role of accidental factors. A second explanation relates business cycles to accidental factors which vitally affect business activity. Thus, wars, discoveries, inventions, and the like increase the tempo of business activity. When the effect of these stimuli wears off, business finds itself with excess capacity. Business then slows down until this capacity is absorbed.

Changes in the rate of population growth. Still a third explanation of the cycle is that changes in the rate of population growth affect the tempo of business. It is well known that population growth is not constant but fluctuates greatly. Periods in which the number of births increases are followed by years of declining birth rates. The period of rising birth rates is accompanied by higher business activity, and the reverse is true of the following period of decline.

Explanations of the Business Cycle in Terms of Internal Causes

While some explanations of the business cycle in terms of external causes are plausible, the evidence that business cycles are primarily a result of such causes is not very convincing. In contrast with the theories

that explain cyclical fluctuations in terms of external causes are those which emphasize internal causes. These attribute cycles to special characteristics of our economic system. We shall consider briefly several theories of this type. Some of them merit our serious attention.

The self-generating theory. One of the best-known explanations of the business cycle is that of Wesley C. Mitchell. He maintains that business cycles are "self-generating." In other words, each phase of a business cycle results from forces which operated in the preceding phase.

The self-generating theory is rather widely accepted. It does not conflict with other explanations of the cycle in terms of internal causes. Rather, it seeks to find and analyze all the factors which in one phase of a business cycle are tending to bring on the next. It is well to keep this theory in mind as other internal explanations are discussed.

Monetary theories. In our study of economic principles, the relation of money and credit to business activity was examined. It was pointed out that a long-run relationship exists between the quantity of money and credit, on the one hand, and the price level on the other. In periods of increasing business activity, prices increase and the quantity of money and credit also increases. Monetary theorists generally maintain that the quantity of money and credit available is an important factor in determining the volume of production. One group believes that the cause of business cycles is primarily the expansion and contraction of money and credit.

A second group of monetary theorists believe that it is most useful to explain changes in business activity by reference to changes in the rate of *saving and investment.* It is maintained that when investment exceeds saving, total money expenditures increase. When investment falls below saving, expenditures contract. If the two factors, saving and investment, fail to balance, business activity must change in tempo. When there are no opportunities for investment for those who save, business will stagnate. In other periods, investment outruns saving, and the resulting expansion of total expenditures stimulates all business.

Another monetary theory, related to the one just discussed, is the *overproduction-underconsumption* theory. Those who hold to this theory maintain that the chief cause of business cycles is changes in the rate of consumer spending. If consumer purchasing power declines, or consumers decide to increase their savings, then production runs ahead of consumption. This results in a contraction of production and employment.

A variation of the overproduction-underconsumption theory is that business cycles result from an *inequitable or unequal distribution of the national income.* According to this theory, people in the high income brackets spend on consumption a relatively small proportion of their incomes, and this is what causes consumption to fall below production. It is presumed that persons with low incomes consume virtually all they earn. They have what John Maynard Keynes called a high "propensity to consume." This means that they devote a high percentage of their incomes to consumption. Persons with large incomes, on the other hand, have a low propensity to consume. After purchasing necessities and many luxuries, they still have a large proportion of their incomes left over.

The unspent portions of the incomes of the well-to-do are available for investment. When such investments can be found, no purchasing power will be lost to the economic system, and business activity will be maintained at a high level. The reverse is true when suitable investments cannot be found. Thus it is contended that inequality of incomes causes a sword of Damocles to hang over our economic system in the form of large sums which may or may not be invested.

Inflexible prices as a cause of the business cycle. Changes in business activity may be explained in terms of price flexibility. The argument is advanced that our free economy must be flexible if it is to operate effectively. Prices must change readily in accord with changes in supply and demand. New businesses must be encouraged to start as quickly as possible when opportunity arises and old ones must retire from the field as their usefulness is completed. Wage rates and interest rates must increase or decrease with increases or decreases in supply and demand.

To indicate the reasoning behind this theory, let us suppose that the price of a certain commodity is inflexible. This being the case, when demand drops, the price stays up. As a result, there is a sharp decline of sales, and later of production and employment. However if the price were flexible such a decline might not occur. A flexible price would fall with a decline of demand. Sales would then decline much less, perhaps not at all. As a result, production and employment would be maintained.

Fluctuations in the output of durable goods. Another explanation of the business cycle is based on the character of production in an economy in which large amounts of durable capital goods are employed. In a modern free-enterprise industrial economy, production is carried on by a roundabout process. Because such a process is time-consuming, busi-

ness activity is uneven. When capital goods are being created, employment and income rise but there is no corresponding increase in consumer goods. For the time being, therefore, there is an active demand for consumer goods which forces prices upward because there can be no corresponding increase in production. When the capital goods are completed, the supply of consumer goods can be increased without an equivalent rise in employment and incomes. Since capital goods must be constructed in advance of consumer goods, and when once supplied wear out slowly, the tempo of business activity rises in the production period and falls while capital instruments are wearing out.

The fact that many consumer goods, like automobiles and houses, are durable also contributes to cyclical fluctuations of business. In periods of optimism and prosperity the demand for such goods is high, but when consumers become uncertain of their jobs and incomes they can delay purchases indefinitely.

Fluctuations in the rate of investment. If we are to select a single factor which accounts, more than any other, for fluctuations in business activity, that factor is changes in the rate of investment. Changes in the rate of investment cause variations in the output of capital goods, and these, in turn, bring shifts in employment and income. It has been estimated that from 10 to 15 per cent of our national product must be devoted to investment if we are to maintain a high level of employment and a rising standard of living. We have noted that, as the business cycle moves through its various phases, fluctuations in the rate of investment are much more pronounced than changes in the level of consumption. In fact, these changes in the rate of investment are so striking that many economists believe that an attack on the problem of the business cycle should be largely directed toward stabilizing investment.

The rate of investment and our standard of living are closely interrelated. This is true not only because of the employment which is provided when capital goods are being constructed. It also is true because of the greater power to produce which is given to our society by an increasing stock of machinery, factories, transportation systems, and other capital equipment. The output of the factory worker and the farmer is multiplied many times over by the use of machinery. A larger stock of capital means a higher standard of living both now and in the future. The failure to replace our capital equipment as it wears out or becomes obsolete is a sure road to a lower standard of living.

The relation of investment to income, expenditure, and saving. We shall now present briefly a somewhat theoretical explanation of the role of investment in our modern economy. The student who masters this will be much better equipped than before to understand the business cycle. This explanation will also be a useful aid in understanding some of the other problems which we shall explore in this text. In explaining the role of investment we shall draw heavily on the teachings of John Maynard Keynes and his followers, without, however, accepting all of their theories.

Let us start out by considering an economic transaction between two individuals, Mr. Jones and Mr. Smith. Mr. Smith paints a picture and sells it to Mr. Jones for $25. The $25 represented an expenditure for Mr. Jones and income to Mr. Smith. We could present this simple transaction as a series of equations:

$$\text{Price of picture (\$25)} = \text{expenditure for Mr. Jones}$$

$$\text{Price of picture (\$25)} = \text{income for Mr. Smith}$$

$$\text{Expenditure for Mr. Jones (\$25)} = \text{income for Mr. Smith (\$25)}$$ [8]

$$\text{Income} = \text{expenditure}$$

The same line of reasoning could be applied to our entire economy. All of us sell the services of things we produce. So if we add up all the transactions such as the one between Mr. Jones and Mr. Smith in a year's time, we could summarize the results as follows:

(1) National income = national expenditure [9]

There obviously is a direct relationship between national income and employment, or the number of people who have jobs. In short, employment, as well as national income, is dependent upon national expendi-

[8] The student should note that the $25 received by Mr. Smith might not be net income because Mr. Smith might have to deduct the various costs which he incurred in painting the picture.

[9] The student should note that we are using the term "national income" here in a somewhat different sense than in the chapter on Economic Magnitudes. This need cause no confusion. We use the word "income" here because it best expresses the total inflow of earnings and explains how they originate, as the student will soon see. "National income" here is used in a gross sense. It represents the value of the product to the final purchasers. It is almost equivalent to "gross national product" as defined by the Department of Commerce and explained in Chap. 3.

ture. We know also that not all spending is for consumption. Some is for investment. So we can say that in any given year:

National expenditure = spending for consumption
+ spending for investment

For the sake of simplicity let us express the idea this way:

(2) National expenditure = consumption + investment

Since things equal to the same thing are equal to each other, we can write:

(3) National income = consumption + investment

People with large incomes do not spend all they earn for consumption. They save part of it. On the other hand, persons with small incomes may spend all they earn and receive help from relatives or the government. Here is a tabulation of the amount saved out of incomes in 1947, a prosperous year, by persons in various income groups:

Table 14. Distribution of Income between Saving and Spending for Consumption

Income group	*Net saving*	*Expenditure for consumption*
Under $2,000.....	−8%	108%
$2,000–$2,999.....	3	97
3,000– 4,999.....	7	93
$5,000 and over....	26	74

Source: U.S. Department of Commerce.

The percentage of income consumed is called the "propensity to consume," and the percentage of income saved is called the "propensity to save." The table above illustrates an important tendency. As income rises, a smaller percentage is consumed and a larger percentage is saved. For example, the average income receiver in the $2,000 to $2,999 bracket spent 97 per cent of his income and saved only 3 per cent. However, those in the $5,000 and over bracket saved, on the average, 26 per cent and spent only 74 per cent.

We must avoid confusion here. The absolute amount consumed does not decrease as income rises. For example, a person in the top income brackets will spend many more dollars for consumption than a smaller income receiver somewhere down the scale. The rich individual will winter in Florida or Arizona and buy tailor-made suits. He will lunch at the most expensive places. Despite all this fine living, which costs him dearly, he does not spend as large a percentage of income for consumption as a day laborer who spends all he earns to feed, clothe, and house his family. The same principle applies in our whole economy. As the national income rises, the amount spent for consumption increases, but the percentage spent for consumption falls and the percentage saved rises. The propensity to consume declines as national income rises, and increases as national income falls. The propensity to save increases as national income increases, and declines as national income declines.

If the nation as a whole attempts to hoard part of its savings, that is, to save more than its invests, total expenditures will shrink and the excess of savings will therefore disappear. Production and employment will also decline. This means that in order to maintain economic equilibrium, income receivers must be willing to invest as much as they are willing to save.

The crux of the problem of preventing cyclical fluctuations of business is to prevent fluctuations of the aggregate volume of expenditures. However, we have noted that investment fluctuates much more than consumption. Our chief task, therefore, in stabilizing production, employment, and income, is to stabilize the level of investment. We must stabilize it at a sufficiently high point to provide a satisfactory amount of employment. We shall deal with this problem in greater detail, when we discuss remedies for the business cycle.

Remedies Proposed for the Business Cycle

We have already noted that the business cycle seems to be largely the result of internal causes, that is to say, of causes which grow out of the nature of our economic system and the characteristic ways in which it operates. It is probable that fluctuations in business activity will occur in any industrialized private-enterprise economy. It is even doubtful if a socialized economy could completely avoid them. Some of these oscil-

lations are the necessary price of progress. The problem, therefore, is not to eliminate all changes in the tempo of business activity. Rather, it is to see what can be done to eliminate the peaks and valleys in the business cycle. It is only the extreme fluctuations which cause serious difficulty.

Proposals for government action. It should be noted that the business cycle is a problem which affects the entire country. This means that individual businessmen cannot do much about it. Even organized groups of businessmen do not have enough power to have much effect on the business cycle by their own unaided efforts. Practically all proposals for ironing out the business cycle require some type of government action. However, the kinds of government action proposed vary greatly. Some of the suggested measures might be effective; others clearly would be useless. Again, some of the measures proposed, like monetary controls, would be consistent with the operation of a free-enterprise economy. Others would tend to undermine such an economy at its foundations.

Money and credit controls. One of the most widely accepted proposals for controlling business cycles is the regulation of money and credit. Booms and depressions are explained by some monetary theorists as the result of changes in the amount of money supplied by our commercial banking system. Hence, the obvious cure is the imposition of money and credit controls. Control of the money supply, together with the regulation of other types of credit in our economy, would make it possible to keep the amount of money and credit constant, or to expand or contract it to offset changes in business activity.

The principal methods of controlling bank credit will be explained in the chapter on Banking Problems. For the most part these controls are provided through certain powers granted by Congress to the Federal Reserve authorities and the Treasury.

Control of investment and savings through control of interest rates. Many economists, as has been noted, believe that the primary cause of booms and depressions can be found in the expansion and contraction of investment. This is the oversaving or underinvestment theory which we have already explained. As pointed out, business activity will be affected if savings and investment are not in equilibrium. In periods when investment tends to fall below the current rate of saving, business activity will contract.

Some proponents of this theory maintain that the direct cause of over-

or underinvestment is changes in the interest rate. The "natural" rate of interest is one that will always keep savings and investment in equilibrium. It is a rate high enough to induce the investment of current savings and low enough to make it profitable for businessmen to borrow these savings. If the market rate of interest is below the natural rate, producers will find it profitable to borrow more money than is saved, and they will spend this money to increase their productive capacity. Such spending brings prosperity, but it finally results in overcapacity. If the market rate of interest is above the natural rate, businessmen will not borrow all current savings and depression is inevitable. In order to prevent both booms and depressions, it is sometimes contended that the market rate of interest must be controlled so it will always equal the natural rate.

This theory ties into the money and credit theory because it is the action of banks in extending credit that causes the market rate to vary from the natural rate. If bank credit is plentiful and bankers extend credit to entrepreneurs at a low rate, business is stimulated and this causes increased activity throughout the entire economic system. Under this stimulation businessmen bid against each other for labor and capital. Employment becomes easy to obtain. Wages and other business costs rise, but prices also move up and profits are high. Soon a full-fledged boom is in progress.

Eventually the bidding of businessmen for capital forces interest rates to rise until the cost of borrowed capital is greater than the rate of return which can be earned on it in business enterprises. Thus the market rate of interest rises above the natural rate. Firms then begin to liquidate and the demand for credit practically ceases because the interest rate is too high. Until the interest rate again falls to at least the level of the natural rate, investment conditions will not be favorable and the businessman will curtail his activity. The problem, therefore, is to regulate credit so that the market interest rate will not rise above the natural rate.

The effect of investment on business activity. Since changes in the rate of investment are the most important single factor accounting for the business cycle, it is not surprising that several of the suggested methods for smoothing the course of the business cycle are designed to stabilize the level of investment. The stimulation of investment seems today to be the main route of attack upon business depressions. In order to see how this frontal attack on the cycle can be launched, we need

to use two tools we have developed earlier in this chapter: the propensity to consume, or the percentage of income consumed, and the formula:

National income = consumption + investment

The propensity to consume expresses, at any given time, a fairly definite relationship between consumption and national income at various levels of employment.[10] The amount of any addition to income that would be consumed is called the "marginal propensity to consume." The marginal propensity to consume provides a way to estimate the total effect of additional investment in increasing national income. If the marginal propensity to consume is known, we presumably can attain a given increase in national income by investing an amount which, together with the consequent consumption, will result in the desired increment of income. We assume that though an increase in income results in an increase in consumption, it does not cause an increase in investment.[11] Let us see how the process works out.

Suppose that $150 billion would be spent on consumption and $50 billion saved if national income were $200 billion. In other words, stated above,

National income ($200 billion) − consumption ($150 billion)
= savings ($50 billion)

The propensity to consume is 75 per cent. But now let us assume that national income increases to $215 billion and consumption rises to $160 billion. What is the marginal propensity to consume? We can see this by looking only at the increment of income.

The additional income of $15 billion has resulted in an increase in

[10] As we previously noted, the propensity to consume tends to decrease as income rises. In other words, a person or a nation consumes a smaller percentage of a large income than a small one. However, changes in the propensity to consume occasionally depart from this pattern. For example, a smaller percentage of the national income of the United States was spent for consumption in the first quarter of 1949 than in the fourth quarter of 1948, although income declined between the two periods.

[11] An increase in income will cause an increase in saving. Whether this increase in saving will cause an increase in investment is debatable. However, according to Keynesian doctrine it will not, because Keynes maintained that the volume of investment is determined by the decisions of entrepreneurs rather than the decisions of savers.

consumption of $10 billion. The marginal propensity to consume is 66⅔ per cent. Since we assume that a constant relation exists between consumption and income at each level of national income, a definite ratio also will prevail between any increase in investment and the total increase in income which results from this investment. The ratio between an increase in investment and the corresponding increase in national income is called the "investment multiplier." [12]

In our exercise above, the marginal propensity to consume is 66⅔ per cent. The increase in national income is divided ⅔ to consumption and ⅓ to saving. What, in this case, will be the multiplier? The multiplier in any given case can be found by taking the fraction of the increase in national income that will be saved and dividing that fraction into one. Since in our illustration the fraction of national income going to saving is ⅓, the multiplier is 3. We obtain this result as follows:

$$K \text{ (multiplier)} \frac{1}{\frac{1}{3}} = 3$$

If the marginal propensity to consume is 80 per cent, the fraction of any increase in national income going to investment is ⅕. Therefore:

$$K = \frac{1}{\frac{1}{5}} = 5$$

This suggests a method for filling in the trough of depressions. Can the government bring about an increase in national income by a program of investment during a depression? If the principle of the multiplier is valid, an increase in investment brings, over a sufficient period of time, a multiple increase in national income. If the multiplier (K) is 5, an increase of $5,000,000 in investment would lead to a $25,000,000 increase in national income. Therefore it appears that we might bolster the level of income through government investment or through offering inducements to businessmen to invest.

The process through which an initial investment of $5,000,000 results in an increase in national income of $25,000,000 is shown in Table 15.

[12] The multiplier theory, as it is presented here, assumes that an increase in income does not in itself create additional investment opportunities. Hence when an increment of investment of $100 creates an increment of income of $100 on the first round, only the part which is spent on consumption will create income on the second round. Hence at each round the amount of new income resulting from the original investment will diminish.

The table is based on a marginal propensity to consume of 80 per cent and, as indicated by our formula, a multiplier of 5.

Table 15. Increase in National Income Resulting from Initial Investment of $5,000,000

Rounds of expenditure	*Increase in national income*	*Additional consumption from increase in income*	*Saving out of income*
1	$ 5,000,000	$ 4,000,000	$1,000,000
2	4,000,000	3,200,000	800,000
3	3,200,000	2,560,000	640,000
4	2,560,000	2,048,000	512,000
5	2,048,000	1,638,400	409,600
6	1,638,400	1,310,720	327,680
7	1,310,720	1,048,576	262,144
8	1,048,576	838,861	209,715
9	838,861	671,088	167,773
10	671,088	536,871	134,217
etc.	etc.	etc.	etc.
	$25,000,000	$20,000,000	$5,000,000

The process begins with the initial investment of $5,000,000. The student is urged to keep in mind the two relationships: National income = National expenditure, and National income = consumption + investment. When the $5,000,000 is spent, for investment, it creates $5,000,000 of income for others. This is the impact on income at the first round of expenditure. Those receiving this $5,000,000 spend $4,000,000 or 80 per cent, for consumption, and save $1,000,000. As a result, $4,000,000 additional income is created. This is the impact on income at the second round. The recipients of the $4,000,000 spend 80 per cent, or $3,200,000, on consumption and save $800,000. The $3,200,000 spent for consumption then becomes income to those who receive it, and constitutes the third impact on income.

This process continues in successive rounds until the multiplying process is completed. If all the successive additions to national income are

added, the total is $25,000,000. Only the first ten increases are shown in the table. Of the $25,000,000, 80 per cent, or $20,000,000, has been spent for consumption, as shown by the total of the second column in the table. When the process has been completed, the original $5,000,000 investment has been reaccumulated in the form of savings. We see that the total of increments to saving, as indicated in the last column of the table, is $5,000,000.

The above table might be said to show a constant "leakage" of income into uninvested savings at the rate of 20 per cent at each round of expenditure. If there were no leakage, the original $5,000,000 increment of income would be all spent, either for consumption or investment. In this case $5,000,000 of new income would be created at each successive round of expenditure, and there would be no limit to the amount of income which the original investment could ultimately create. In this case the size of the multiplier could be represented by the sign for infinity (∞). However, in the real world leakage seems to be the rule, so that the multiplier is likely to be represented by a number of rather small size.

Advocates of large-scale public-works programs point to the principle of the multiplier in urging larger expenditures during depressions. It sometimes is pointed out also that the propensity to consume usually is higher during a depression, when incomes are low, than during a boom. This, of course, means that the multiplier is large. For example, if 90 per cent of any increment of national income would be consumed, the multiplier is 10. Therefore, it is indicated that injection of additional investment during a depression will result in relatively large increases in national income.

Reducing inequality in the distribution of wealth and income. We have already noted that many of those who explain the business cycle in terms of overproduction or underconsumption believe that the basic cause is to be found in the maldistribution of wealth. The rich, it is said, save too large a proportion of their incomes to take an adequate amount of consumers' goods from the market. Further, when money is saved, it is invested in equipment which increases production. In time markets become congested with consumer goods. This causes prices and profits to fall and business to stagnate. Investment is then curtailed, and the incomes of the rich fall. They must, therefore, use a greater proportion of their smaller incomes for consumption purposes. Meanwhile produc-

tive equipment gradually wears out. Under these conditions consumption eventually catches up with productive capacity, prices and profits rise, investment is resumed, and production and incomes recover.

While some adherents of the maldistribution theory attribute cyclical swings to changes in the rate of saving, others maintain that it is changes in the rate of investment that cause most of the trouble. They argue, however, that if incomes were more nearly equal, less would be saved, and this lower rate of saving would prevent the quick exhaustion of investment opportunities. Investment would then be spread more evenly throughout the years, and business fluctuations would be greatly reduced.

However, the theory that cyclical fluctuations are primarily due to unequal incomes is not entirely convincing. In the first place the theory assumes that the amount of investment that can be made profitably is definitely limited. This is questionable, because except in periods of deep depression an abundance of investment opportunities appears to exist. In the second place, the theory assumes that if savings and the rate of investment were lower, investment would fluctuate less. It is by no means certain that this is true. Even if all investments were made out of the savings of people with small incomes, there is no reason to suppose that these people would continue to invest if fears for the future of business should sweep over the community.

If, however, maldistribution of income is the principal cause of the business cycle, one or both of two remedies might be applied. First, high incomes could be reduced through taxes, limitation of profits, or other measures. Second, efforts could be made to induce the rich to spend a larger portion of their incomes on consumption, or to invest all savings and avoid hoarding. Perhaps, to encourage this, a special tax could be put on idle cash balances above a certain amount.

Control of the business cycle through fiscal policy. The contention sometimes is made that the government should employ fiscal policy to offset changes in the tempo of business activity. Advocates of this viewpoint recognize that business fluctuations will occur, but they contend that by careful planning the worst effects can be overcome. The government, for example, can undertake a public works program in a period of depression. Later, as business expands, the government will then reduce this program and thus not compete with private enterprise. When the tempo of business decreases again, the government will revive the public-

works program. Thus the tempo of governmental activity will be the reverse of private activity, increasing as private business decreases and decreasing as private business improves.

Along with an enlarged public-works program, the government could undertake a social-security program, with unemployment insurance, old-age pensions, and the like, to keep up purchasing power. By these means fluctuations of business activity could be held within moderate limits, proponents of such measures contend.

Another proposal is to use the public debt as a balance wheel in controlling the tempo of business. In periods of active business the debt will be decreased, or at least funds will be accumulated for debt-redemption purposes. In periods of economic contraction the debt may be increased. This means that the government will borrow to spend in a depression. It will pump purchasing power into the economic system by spending more than it collects in taxes. The reverse will be true during the boom. The government will collect more in taxes than it spends. The difference will be used to pay back what was borrowed during the last depression. Thus the amount of money income which consumers have to spend will be somewhat stabilized.

A somewhat similar proposal relates to increasing or decreasing the rate of taxes as business activity changes. In periods of expansion, when the price level is increasing, tax rates will be increased; in periods of contraction tax rates will be decreased. Again the purpose is to stabilize the amount of consumer spending.

Certain aspects of fiscal policy will be discussed somewhat more fully in later chapters in connection with money, banking, taxation, and the public debt.

Economic planning. The contention sometimes is made that planning by government can do much to counteract the business cycle. Advocates of planning say that the government must look ahead and have ready the productive facilities and resources we shall require. By planning our requirements in advance, we can avoid alternate periods of heavy investment and stagnation, it is contended. By developing our national resources, we can prevent shortages which foster sharp price increases at the boom stage of the cycle.

Opponents of planning contend that it would ultimately lead to complete state control over industry. Those opposed to planning also point out the almost infinite knowledge and wisdom required to plan for a

great industrial society such as ours. They doubt that any individual or small group possesses the required information or wisdom.

Recent History of Government Attempts to Control Business Cycles

We have discussed a number of methods which have been proposed for the control of business cycles. Let us now raise the question, Which of these methods have been applied, and with what success? What has the government done in response to demands to control business cycles? Has the government adopted some theory and attempted to apply it, or has it pursued a policy of trying everything in the vague hope of hitting on something that would work?

In order to bring our discussion within a reasonable scope it will be necessary to limit it to those measures which were employed by government in direct response to the demand that something be done to aid recovery following the depression which began in 1929. Some of the measures which we shall discuss were already in force at that time and were merely strengthened. Others were used for the first time.

Measures designed to bring about credit expansion. Before 1913 any recession of business was usually accompanied by a sharp contraction of bank loans and deposits, and often this contraction of bank credit greatly increased the momentum of the business decline. Partly in an attempt to remedy this situation, the Federal Reserve System was established in 1913. It was hoped that this system would increase the stability of bank credit by preventing both overexpansion in a boom and excessive contraction in a recession. The powers of the Federal Reserve authorities over credit will be explained in detail in the chapter which deals with banking problems.

The establishment of the Federal Reserve System, however, did not solve all credit problems. Even before the great depression Congress was induced to establish several types of land banks to meet the needs of farmers for long-term credit. Also during the First World War, it established the War Finance Corporation to make loans to business firms having war contracts.

During the depression of the 1930's various government lending agencies were established, both to ease the impact of the depression on various groups and to stimulate recovery. In 1932 Home Loan banks

were established to aid home owners with mortgaged properties. Also in 1932 the Reconstruction Finance Corporation was created. Its purpose was to extend credit to business. Some maintained that if business could secure credit it would expand and the depression would end. Within the next few years still other credit facilities were made available. Such agencies as the Export-Import Bank, Electric Home and Farm Authority, the Home Owners Loan Corporation, and the Farm Credit Administration, to mention only a few, were created. The list is sufficiently long to indicate that leaders in government considered the extension of credit as one of the important means of securing recovery. During the Second World War, further additions were made to the list of government lending agencies, and the lending powers of established agencies were expanded to meet the needs of war.

Greater centralization of banking control. The Banking Act of 1935 contained important provisions for strengthening the powers of the Federal Reserve Board, the name of which was changed to the Board of Governors. The purpose here was to bring greater uniformity to the credit policies of the member banks of the Federal Reserve System. It was argued that one of the causes of the 1932 depression was the failure of Reserve banks to adopt a wise policy. Instead of all the Reserve banks supporting a policy of credit expension in order to aid recovery, some Reserve banks contracted credit while others were attempting to expand it. In a depression crisis such lack of unity could not be tolerated, and so Congress enlarged the powers of the Board of Governors. Included in the new powers was authority to change reserve ratios and rediscount rates within wide limits.

Monetary legislation. Congress also enacted laws giving the government more control over money. In pursuing a policy of monetary manipulation and control, Congress in 1934 passed the Gold Reserve Act. This Act authorized the President to reduce the gold value of the currency to between 50 and 60 per cent of its former value.

The theory behind this Act seems to have been that the value of the dollar depended on its gold content. It was supposed, therefore, that reducing the gold content of the dollar would raise the price level; and it was thought that a higher price level would tend to bring recovery. Under authority of the Gold Reserve Act the President reduced the gold content of the dollar about 41 per cent. This proved, however, to have

little effect on the price level, and there is not much evidence that it had any appreciable effect on recovery.

On the theory that the depression was caused by lack of money and that more money would bring recovery by increasing demand and raising prices, Congress in 1934 also passed the Silver Purchase Act. This Act authorized the Treasury to purchase newly mined domestic silver until its price reached $1.29 per ounce, or until the total value of the stock of silver equaled one-third that of the stock of monetary gold. All silver purchased was to be paid for in silver certificates. Under the Silver Purchase Act the price of newly mined domestic silver was increased to more than 90 cents an ounce.

Public works. The government accepted the theory that it has an obligation to provide work for the unemployed, and therefore a public works program was instituted. At first the theory prevailed that the Federal government should simply stand ready to make loans to the states for construction, or, if necessary, carry on a construction program of its own. It was found, however, that considerable time is required to get a building program under way. Further, so much money had to be spent on materials that the immediate effect on employment was limited. While the materials purchased might stimulate private industry, this result was often slow to appear.

In order to get quicker action in relieving unemployment, the policy of undertaking construction projects was in part abandoned. Instead Congress set up the Works Progress Administration (WPA). This agency quickly developed work projects that required relatively little in the way of planning or materials. In some cases the work done had relatively little value, but it put purchasing power into the hands of the unemployed in the form of wages rather than as a dole. It was expected that this purchasing power would stimulate sales and thus put idle factories into operation. In other words, it was hoped that government expenditures would stimulate recovery by "priming the pump" of private business.

Control of prices. In the interest of preventing wide swings in the price level, it was argued that the government should intervene in the price-making process to keep wholesale and retail price trends in their proper relationship. As a result, some Federal laws were passed dealing directly or indirectly with prices. By the use of such powers as were included in the Agricultural Adjustment acts, farm prices were sup-

ported. Under the Bituminous Coal Act of 1937 minimum prices were fixed for coal in accordance with average costs of production. Wage and hour laws also affected prices. Further, some states passed "fair trade" laws which permitted private manufacturers and distributors of branded or trade-marked goods to fix resale prices to which retailers were obliged to adhere. The National Industrial Recovery Act also contained many provisions for price fixing by agreement of the members of an industry.

Many maintained that direct measures for price support were more effective than indirect measures in stimulating recovery. In actual fact, however, it is probable that most of these price controls hindered rather than aided recovery.

Social-security legislation. Social-security laws have been passed in the United States and a number of other countries in order to relieve personal hardship during depression, unemployment, and in old age. Unemployment compensation provides weekly payments to the jobless for a specified period. The amount and the payment period vary considerably from state to state. Old-age pensions assure the continuance of a minimum purchasing power for those no longer able to work and without other income. Old-age and unemployment benefits help to meet the depression problem by supporting the buying power of consumers during periods of low economic activity.

Foreign trade. It is frequently maintained that foreign trade is the balance wheel that determines whether there will be prosperity or depression in the United States. While a relatively small portion of total production is sold in foreign countries, it is argued that the amount is sufficient to keep industry at a reasonable rate of production. Producers of certain commodities, however, are peculiarly dependent upon foreign trade. When these industries in which exports represent a substantial portion of total output suffer a serious loss of foreign business, other segments of industry are vitally affected. During the depression of the 1930's, reciprocal tariff agreements were made with many other countries, the Export-Import Bank was created, and other measures were instituted to increase world trade in order to aid business recovery.

Other measures. The administration did not stop with these efforts in its attempt to secure recovery. Several acts were passed which gave labor more power, on the theory that higher wages would stimulate the demand for goods. Also the government entered into active competition with private industry in some fields for the purpose of lowering mo-

nopoly prices. This was especially evident in the electric-utility industry. The government also attempted to stimulate construction of housing. Finally, much thought was directed to economic planning on the theory that changes in the tempo of business are due in the main to the lack of an over-all plan. Sufficient has been said to indicate the varied theories which were adopted by the government in its attempts to bring about recovery. It is necessary, therefore, to study the results of these efforts.

Evaluation of Government Measures for Alleviating or Controlling Depressions

In order to judge the effectiveness of the varied programs which were instituted by the government to offset the depression, we must examine the extent of recovery in the period between 1932 and 1939. We cannot include for this purpose the years after 1939, because in these years output was stimulated by war. As soon as the Second World War broke out in Europe, preparation for war also began in the United States. Such preparation stimulated demand and had the same effect as an additional public-works program. Thus, expenditures for war purposes were increased to $1.4 billion in 1939, to $2.2 billion in 1940, and to $13.8 billion in 1941. At the same time large orders were placed in this country by the western European allies. After Pearl Harbor the war expenditures of the United States increased enormously, and in a year or so the production of our economy began to approach capacity.

A good measure of economic fluctuations is changes in the gross national product. Table 16 shows the gross national product of the United States from 1929 to 1941.

The table shows that in the period between 1933 and 1937, which is considered an expansion period, the gross national product increased from $55.8 to $90.2 billion. This increase in production, and therefore in income, has often been cited as evidence that the recovery program instituted by the government produced results. On the other hand, the severe depression of 1938, which reduced the gross national product from $90.2 to $84.7 billion, cast the shadow of doubt upon the soundness of this program. Furthermore, many maintained that since the national product did not reach its 1929 level even in 1937, the program was not as successful as had been anticipated.

Table 16. Changes in Gross National Product, 1929–1941

(*In billions of dollars*)

Year	G.N.P.	Year	G.N.P.
1929	$103.8	1936	$ 82.5
1930	90.9	1937	90.2
1931	75.9	1938	84.7
1932	58.3	1939	90.4
1933	55.8	1940	100.5
1934	64.9	1941	125.3
1935	72.2		

Source: U.S. Department of Commerce.

Another indication of the extent of recovery is payments made in the form of salaries, wages, work relief, social-security benefits and the like. These payments represent the bulk of purchasing power in the hands of the consumer and represent the demand side of the economic picture.

Table 17. Index Numbers of Income Payments to Individuals, 1929–1940

(1935–1939 = 100)

Year	Index	Year	Index	Year	Index
1929	122.3	1933	68.9	1937	107.7
1930	109.2	1934	78.8	1938	98.5
1931	92.3	1935	87.2	1939	105.4
1932	70.6	1936	101.3	1940	113.5

Source: U.S. Department of Commerce.

Table 17 shows that income payments never reached the 1929 figure during the period from 1932 to 1940. From the low point of 1933, when the index was 68.9, income payments increased to a high point of 107.7 in 1937 before a new setback came; yet this increase did not equal the 1929 or even the 1930 level of income payments. Moreover, in 1937 much

income received represented work relief, direct relief, social security, and other benefits. These amounted to over $5 billion, while in 1929 such income was not quite $1 billion. Beginning in 1933, benefit payments varied from a low of about $3 billion to a high of over $5 billion. This increase in benefit payments was, however, more than offset by a decrease in wages and prices.

An important measure that may be used to indicate the extent of recovery is the estimated amount of unemployment in the United States. Unemployment in the 1920's hovered between slightly over 4 million in 1921 to just over 1 million in 1929. In 1933 there were about 14 million unemployed. Furthermore, between 1933 and 1937 the number of unemployed never fell below 7 million. Thus, the recovery period 1933 to 1937 did not succeed in reducing unemployment to a figure comparable to that in the 1920's.

It is clear that some recovery took place in the period from 1933 to 1937, and that this recovery coincided with the measures taken by the government to stimulate business. However, recovery was neither complete nor adequate.

Those who believe in the self-generating theory of business cycles might well argue that the depression had run its course by 1933, and that recovery was inevitable after this time. It is also possible that while legislation to increase government spending actually stimulated recovery, other so-called recovery measures had a retarding influence. Those who argue that free markets and flexible prices are essential to prosperity might well maintain that the National Industrial Recovery Act, the Agricultural Adjustment Act, and similar measures hindered the recovery which fiscal measures may have aided. These acts may have hindered recovery because they were intended to maintain prices at artificially high levels.

Finally, the argument is advanced that the true measure of the efficacy of the legislation passed in the 1930's to promote recovery is to compare the record of the United States with that of the rest of the world. Data in the League of Nations Statistical Year Book for 1941–42 make possible some comparisons of wholesale prices in the various countries. The year 1929 is taken as equaling 100 in the index.

Table 18 shows that all nations were suffering from the depression in the period from 1929 to 1933. The table also shows that, with the exception of France, prices in all of these countries started to increase

in 1934. Price declines in most countries were not so drastic as in the United States, nor was recovery quite so rapid; yet the general movement is the same. The data presented indicate that though different indexes were used in different countries, the general trend in wholesale prices was the same, both in the period from 1929 to 1933 and after 1933. This common movement of prices lends support to those who maintain that business cycles are self-generating and that the economies of the different countries of the world are highly interdependent. Since the bottom of the depression had been reached by practically every country by 1932 or 1933, it was inevitable that prices would increase after this time.

Table 18. Index of Wholesale Prices in Six Countries

(1929 = 100)

Year	*United States*	*England*	*France*	*Germany*	*Canada*	*Australia*
1929	100.0	100	100.0	100.0	100.0	100.0
1930	90.7	96	104.5	90.8	90.6	92.7
1931	76.6	90	102.2	80.8	75.4	84.7
1932	68.0	88	94.6	70.3	69.8	82.0
1933	69.2	85	93.5	68.0	70.2	79.0
1934	78.6	86	92.8	71.7	74.9	79.1
1935	83.9	87	86.9	74.2	75.4	80.6
1936	84.8	90	91.2	75.9	78.0	84.4
1937	90.6	94	111.3	77.2	88.4	84.1
1938	82.5	95	125.5	77.1	82.2	88.9
1939	80.9	96		77.7	78.8	89.0
1940	82.5	112		80.2	86.7	98.0

Source: League of Nations Year Book for 1941–42.

However, we may still raise the question, Did the measures employed by our government stimulate recovery to such an extent so that prices increased faster than otherwise would have been the case? Here again the wider fluctuations of prices in the United States make it difficult to reach definite conclusions. It will be noted that prices in England never went below 85, while in the United States they fell to 68. However, recovery in England, so far as it can be measured in terms of wholesale

prices, was steady without a setback. In the United States prices reached an index of 90.6 in 1937 only to fall to 80.9 in 1939, a point about equal to that attained in 1934.

Another comparison that can be made is the percentage of unemployment in different countries. The following table compares the United States with England, Canada, and Australia.

Table 19. Labor Force: Percentage of Unemployment in Various Countries, 1929–1940

Year	*United States*	*England*	*Canada*	*Australia*
1929	3.9	8.2	4.2	11.1
1930	9.7	11.8	12.8	19.3
1931	17.4	16.7	17.4	27.4
1932	25.9	17.6	26.0	29.0
1933	26.4	16.4	26.5	25.1
1934	22.5	13.9	20.6	20.5
1935	20.8	13.1	19.0	16.5
1936	18.2	11.2	16.7	12.2
1937	18.8	9.3	12.5	9.3
1938	20.5	10.0	15.1	8.7
1939	18.7	8.8	14.1	9.7
1940	16.9	5.9	10.1	8.0

Source: Compiled from League of Nations data and other sources.

On the basis of unemployment the record in the United States follows the general pattern as is found in other countries. Conditions began to improve in 1933 in every country, thus again attesting to the world-wide character of the depression. In the United States, however, employment increased much more slowly than in the other countries, and did not begin to reach satisfactory levels until our war boom began in 1941. Thus the employment record of the United States from 1933 to 1940 was a poor one.

Government policies in the United States and Great Britain contrasted. In so far as a government acts aggressively in utilizing fiscal policy and other economic controls, it automatically assumes a degree of responsibility for the orderly functioning of the nation's economic life. Some

statesmen and economists would have the government take over complete responsibility for the economic well-being of our people. Their ideas frequently appear in proposals for new legislation.

An Englishman, Sir William Beveridge, has advocated in his book, "Full Employment in a Free Society," that the government assume complete responsibility for providing employment and other social services. He would achieve full employment by requiring the government to spend in sufficient volume to compensate for any deficiency that might accrue in private spending. Also, he would allow the government to require private industries to locate in areas where more employment opportunities were needed; and if necessary, he would have the government move workers to places where employment was available.

Many of the policies of the British labor government, in providing for its citizens from the cradle to the grave, have been adopted as a result of the writings of Sir William Beveridge, and others like him who urge a great extension of government controls over the economic life of the nation. The proposals of such modern Englishmen are in sharp contrast to those of another great British economist, Adam Smith, who in his "Wealth of Nations" advocated the policy of *laissez faire,* which calls for a minimum of government interference with economic life.

In our own country, Congress passed the Employment Act of 1946. This Act states:

> . . . the Congress hereby declares that it is the continuing policy and responsibility of the Federal Government to use all practicable means consistent with its needs and obligations and other essential considerations of national policy . . . to coordinate and utilize all its plans, functions, and resources for the purpose of creating and maintaining . . . conditions under which there will be afforded useful employment opportunities, including self-employment, for those able, willing, and seeking to work, and to promote maximum employment, production, and purchasing power.

When Congress was considering the Employment Act there were those who would have had the government assume much greater responsibilities. However, the philosophy of free enterprise and individualism, which has been characteristic of our dynamic economy, prevailed. Our national legislators saw that assumption by the government of complete responsibility for employment also means assumption of ever greater controls

over economic life, and the imposition of ever-growing restrictions on the right of the individual to use his own best judgment and initiative in carrying on his economic activities.

Thus the policies of the British government and those of the government of the United States are in sharp contrast, although both governments are essentially democratic. In Britain, the government more and more assumes responsibility for the well-being of the individual. In the United States most of that responsibility is still placed on the individual himself.

Conclusions

In a modern industrial society the business cycle presents a difficult and complex problem. Though business fluctuations are often caused by powerful external factors like wars, the cyclical nature of economic activity must be explained largely by reference to internal factors. The business cycle, in other words, is a phenomenon to be expected in a specialized, industrialized economy in which everyone depends for a living upon marketing goods and services. In such an economy a number of forces are always operating which tend to bring about successive periods of expansion and contraction.

Because the business cycle affects the entire economy, only the government has sufficient power to take effective remedial action. In the past government measures have been applied chiefly in periods of depression, the aim being to stimulate recovery. It is not clear that the measures taken have been very effective. Some of them appear to have been quite wrong, and to have actually hindered recovery.

One of the dangers that we face in our attempts to stabilize the business cycle is that we may resort to methods that make our economy inflexible. This would tend to destroy the system of free enterprise. To minimize the danger we should probably place our chief reliance on types of control which interfere as little as possible with the freedom of individual businessmen to manage their enterprises and carry on trade according to their own best judgment. This means that we should depend chiefly on monetary and credit controls, and on fiscal policy. These controls should be supplemented by measures designed to keep markets free, and to preserve as much competition as is possible in a modern industrial economy.

Review Questions

1. How would you define a business cycle?

2. Why do we say that the problem of cyclical fluctuations has become of increasing importance?

3. Describe the more important economic effects of business cycles.

4. Describe the four phases of the business cycle.

5. In what ways do business cycles vary from each other? Describe each of the principal kinds of business cycles.

6. Explain what happens during the progress of a business cycle.

7. Distinguish between internal and external causes of business cycles.

8. Summarize briefly the principal external causes which have been offered in explanation of the business cycle.

9. Summarize briefly the principal internal causes offered as explanation for the business cycle.

10. Explain the role of investment in modern economic life. What determines the level of national income? What two types of expenditures do we include under national expenditures?

11. What determines the total amount of investment at any particular time?

12. What is the propensity to consume? What is the propensity to save?

13. What relationship between savings and investment must exist if national income and employment are to remain stable? What happens if savings exceed investment? If investment exceeds savings?

14. What is the investment multiplier? Why is the principle of the investment multiplier important in formulating a method for smoothing the business cycle?

15. Explain briefly the differences between the economic policies of the United States and Great Britain. What differences in economic philosophy are reflected by these differences in policy?

Problems

1. Write a detailed description of the great depression. Cover the period 1929 to 1937. Comment on the decline and subsequent recovery of production, employment, and prices. You may draw on library reference sources as well as on the statistical material given in Chaps. 4 and 5.

2. Examine monthly data for the various economic magnitudes in 1936, 1937, and 1938. Cover such data as industrial production, employment, prices, construction, automobile production, department-store sales, sales of various consumer durables, coal production, and railroad carloadings.

a. When did the 1937 boom reach its peak? Can you find the crest exactly or do the various economic series reach their high points at different times? Fix the crest within as narrow a range as you can. Would you say that the 1937 boom was an important one or a feeble one? Did the downturn come sharply and violently, or did several months pass before one could be sure that the nation was heading for a depression?

b. When was the trough of the 1938 depression reached? Did all economic series reach their low points together? Was the upturn rapid?

3. Examine a graph of the Cleveland Trust Company's index of American business activity. These graphs are available in all library reference rooms, and they extend back to 1790. How many major cycles can you find? Remember that a cycle can be measured from crest to crest of a boom, or from trough to trough of a depression. Which were the two longest depressions? Were these also the deepest? Would you say that the relative importance of business cycles in the United States is greater or less in the twentieth century than in the nineteenth century? Give reasons for your answer to this last question.

4. Study data on the number of nonfarm-housing units constructed in the United States in each year during the last four decades. Such information can be found in the 1947 Supplement to the *Survey of Current Business,* and in recent monthly copies of the *Survey of Current Business.*

a. In what year was the low point in residential construction reached in the decade before the First World War?

b. When was the last peak of residential construction before the First World War? Did the peak in housing correspond with the crest for other types of construction?

c. On the basis of the average duration of the building cycle, when would you have expected the crest of the postwar boom? Did it come then?

d. Compare the construction boom of the 1920's with that of the late 1940's. Were there fewer or more residences constructed in the 1920's? How

do the booms compare when differences in population are taken into consideration?

e. How did construction costs compare in the two periods?

5. The United States Department of Commerce estimates total disposable income of individuals, expenditures for goods and services, and personal savings. This data is reported in the *Federal Reserve Bulletin* and in the *Survey of Current Business.* Study this information for the period 1929 to 1948.

a. In what years did savings constitute the largest percentage of disposable income? The least?

b. Were the years of large-percentage savings boom or depression years?

c. How did the war affect the percentage of income saved? Trace the percentage of savings by quarters in the period 1946 to 1950. Was the proportion of income saved at the crest of the postwar boom greater or less than in 1946?

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6. Monetary Stability

The Problem of Monetary Stability

Monetary stability exists when money exerts a steadying rather than a disturbing influence on the economy. It is an ideal condition which may, at times, be approached, but is never wholly achieved.

If we attempt to be more specific in defining monetary stability we find that there are at least three ways in which money might have a stabilizing effect. First, the supply of money or the total amount in circulation might be a fixed quantity. Second, the price level might be held constant, so that the purchasing power or value of money would be stable. Third, the flow of money, or the rate at which it is spent, might be steady and unvarying.

In the past writers on money have usually emphasized the importance of a stable quantity of money and a stable value for money. Today, however, greater emphasis is being put on the rate at which money is spent. More and more, economists are coming to recognize that changes in the rate of spending are among the chief direct causes of business fluctuations. Without such changes in the total money demand for goods, cyclical changes in the price level, and in production and employment, would scarcely be possible.

From what we learned in the preceding chapter it is clear that some of our most troublesome economic problems grow out of cyclical fluctuations in business activity. These fluctuations are not, to be sure, wholly monetary in origin. Still, they could not take place without corresponding changes in certain monetary factors. Though it is not always easy to decide which is cause and which effect, changes in the level of production and employment are always closely associated with changes in money income and money expenditures, and with changes in the general price level. There is reason to believe that if means could be found to stabilize the rate of expenditure and the price level, cyclical fluctua-

tions in production and employment would either disappear or be reduced to minor proportions.

The present chapter has two main purposes: first, to examine the various factors which are relevant to the problem of monetary stability; second, to present and evaluate certain proposals which aim to achieve, perhaps not complete stability, but at least a greater degree of stability than now exists.

We shall lay the foundation for our attack on the problem of monetary stability by reviewing briefly certain basic monetary concepts, and certain ways in which money is related to other factors in our economy.

How Money Influences Prices, Production, and Employment

Changes in the rate of spending. There is nothing mysterious about the way in which money influences either prices or production and employment. Money exercises its influence on the economy by being spent. At any given price level, an increase in the total amount of money spent means an increase in the total money demand for goods. Such an increase in total demand will result in some rise in prices, and if there is any unused productive capacity in the economy, it will also cause an increase in output and employment. Similarly, a decrease in the total amount of money spent will cause both a fall in the price level and a decline of production and employment.

We see that it is easy to explain why changes in expenditure affect prices, production, and employment. It is not so easy, however, to explain why total money expenditures should change, and why at certain times they fall while at other times they rise. Decisions to spend money or not to spend money are made by those who hold it, and their decisions are affected by a great variety of motives. For example, if consumers as a group decide that economic conditions are uncertain and that their future incomes are in doubt, they will reduce their expenditures in order to try to build up their cash reserves. Again, if the majority of manufacturers decide that a decline of sales is in prospect they will begin to reduce production schedules. However, a decision to reduce production is also a decision to reduce spending, because it means paying out less money for both labor and materials.

Effect of cash balances on the rate of spending. While the reasons which induce people to increase or decrease their expenditures are many,

there is one factor which they always take into account, namely, the size of the cash balance which they already possess. Other things being equal, the more money people hold, the more willing they are to spend; and conversely, the less money they hold, the less willing they are to spend.

However, the average size of the cash balances held by the public does not depend on whether people wish to hold money or to spend it. Rather, it depends on the total amount of money in circulation, including both pocket money and bank deposits. With only a limited amount of money available, it is not possible for everyone to increase his cash balance. If some people succeed in accumulating more money, this simply means that other people have less. Only if some means can be found for increasing the total amount of money in circulation will it be possible for everyone to possess more cash, or for the average size of cash balances to rise.

Other things being equal, an increase in cash balances will tend to cause an increase in expenditures, that is to say, in the total money demand for goods. This in turn will bring a general rise in the price level. On the other hand, if the total amount of money in circulation should decline, cash balances would necessarily shrink; and this would bring about a reduction of expenditures and a fall of the price level.

The Quantity Theory and the Equation of Exchange

The quantity theory. The quantity theory of money is an attempt to explain changes in the price level in terms of changes in total cash balances, or the amount of money in circulation. In its most rigid form, the quantity theory states that changes in the price level are always in direct ratio to changes in the quantity of money. This would mean that if the quantity of money doubled, the price level would also double. Stated in this rigid form the quantity theory is not acceptable, because it fails to take into account other important factors which may, at times, affect the price level as much as does the quantity of money. However, if stated less rigidly, the quantity theory contains an important element of truth. A more acceptable statement of the theory is as follows: An increase in the amount of money in circulation *tends* to raise the price level, while a decrease in the amount of money in circulation *tends* to reduce it.

Money, as we have seen, affects prices only by being spent. While

the quantity of money in circulation affects the total volume of expenditures, it does not in itself determine them. With a given quantity of money in circulation, the amount spent in a given period of time may vary greatly. This is because the same dollars can be used over and over again as they come into the possession of different people. The number of times that the average dollar is spent in a given period of time is known as the rate of circulation, or the velocity, of money. Since the velocity of money affects the total volume of money expenditures, it also affects the price level. Furthermore, the price level is also influenced by the quantities of goods which are available, and which are offered for sale.

The equation of exchange. In studying the problem of monetary stability we shall find it useful to keep in mind the relationships between four major factors. These factors are (1) the general level of prices; (2) the physical quantity of goods and services exchanged for money in a given period; (3) the average amount of money in circulation, including both pocket money and demand bank deposits; and (4) the velocity of money, or the number of times the average dollar is exchanged in a given period of time. It is possible to express the relationships among these four factors in a simple mathematical formula known as the "equation of exchange."

In order to simplify our exposition, let us assume that all goods and services which are exchanged can be divided into a large number of like units. On this assumption, the general level of prices will be represented by the price of an imaginary goods unit.[1]

We are now ready to construct the equation of exchange. We will let:

P = the price of a goods unit, or the price level;
T = the number of goods units, or the physical volume of trade;
M = the quantity of money in circulation, including both pocket money and demand deposits; and
V = the velocity or average rate of turnover of money.

The equation of exchange can now be expressed in the form:

$$PT = MV$$

[1] The only way in which it is possible to conceive of dividing the total physical volume of trade into a number of like units is to think of a composite commodity. Each unit of this commodity would be made up of a very small amount of every material good and of every service entering into trade.

This simply means that the price of each goods unit, multiplied by the number of units exchanged, equals the money in circulation, multiplied by the average number of times each unit of money is used. This equation, of course, refers to a given economic system and a given period of time. *PT* (price times units of goods traded) is one way of expressing the total money value of goods sold. *MV* (money in circulation multiplied by the average times each unit is spent) is another way of expressing the same thing. Because *PT* and *MV* are really identical, the equation of exchange is often called a truism. In effect, it simply says *the money value of the goods sold equals the money value of the goods sold.*

Since one side of the equation must always equal the other, if any factor in the equation changes, this variation must be offset by a change in one or more of the other factors. The equation, however, tells us nothing as to which of the other factors will change or how much. We only know that the changes which occur must be such as to keep the two sides of the equation equal. So far as the equation is concerned, a change in a given factor might cause a change in only one of the other factors or it might cause a change in all three. To make any valid judgment as to what would actually happen we must go back of the equation itself and study in the real world the factors which the equation represents.

The usefulness of the equation of exchange results solely from the fact that it groups together in a convenient way certain closely connected economic factors, and helps us to study the relationships among these factors without becoming hopelessly confused.

An Analysis of the Problem of Monetary Stability

Stabilizing total money payments. For our present purposes the most significant part of the equation of exchange is *MV*, the quantity of money multiplied by the average rate of turnover. As we have already noted, money exerts its effects on prices, production, and employment through variations in the rate of expenditure, and *MV* represents the total amount of money payments in a given period of time. The problem of achieving monetary stability is, in the final analysis, the problem of stabilizing money expenditures. Thus if an effective method could be found for controlling *MV*, the problem would be solved. Stabilization of *MV*, if it could be achieved, could have two important effects. It would tend (1)

to prevent cyclical fluctuations in the price level, and (2) to prevent cyclical fluctuations of production and employment.

The difficulty of controlling MV. Unfortunately there is no easy or simple way of controlling *MV*, the flow of money payments. Even to stabilize *M* would not be easy. In the modern world *M* consists mostly of bank deposits. To stabilize *M* would therefore require the development of adequate controls over the total volume of deposit currency. Some power to influence the total volume of bank deposits already exists in the hands of the Federal Reserve System and the Treasury, but the present controls can scarcely be considered adequate.[2] If the stabilization of *M* would be difficult, there is reason to believe that the stabilization of *V*, the average number of times that a dollar is spent, would be even more so.

It has been suggested, however, that we do not need to stabilize either *M* or *V* in order to stabilize their product. If, for example, sufficient control could be exerted over *M*, it is conceivable that *M* could be varied in such a way as to offset changes in *V*. Unfortunately this method of control would be very difficult to apply and uncertain in its effects. Changes in *M* might have to be large and relatively rapid, and *V* might respond by shifting further in the wrong direction.

Stabilizing expenditures of the final purchasers of goods and services. Stabilization of *MV*, the total volume of money expenditures, is not the only possible way to attack the problem of achieving monetary stability. Many writers believe that a simpler, more effective, and more direct approach to the problem is to think in terms, not of stabilizing *MV*, but of maintaining a constant level of national income, and a constant level of expenditures by the final purchasers of the national output of goods and services.

MV represents not only payments out of income, but *all* money payments for goods and services. It includes payments of wages, rent, and interest; payments for raw materials and semifinished goods as they pass from one business unit to another; and also payments out of capital funds for stocks, bonds, real estate, and other investment properties. However, the expenditures which ultimately determine the level of output are those which are made in order to purchase the final products

[2] The powers of the Federal Reserve System and the Treasury over the volume of bank deposits will be discussed at some length in the following chapter, which deals with banking problems.

of industry. Such expenditures are made largely out of net income by individuals, corporations, and governments. They include the expenditures of consumers, and also expenditures for finished investment goods like buildings and machines.

There are definite advantages in employing the income-expenditure approach to the problem of monetary stability. Income is the source of most expenditures by those who purchase goods for consumption or investment, and it is these expenditures that constitute both the ultimate demand for all goods and the principal channel through which money exerts its effects on prices, production, and employment. Moreover, income is not merely the source of expenditure; it is also the result of expenditure. All expenditures by the final purchasers of goods and services ultimately become income to someone in the form of wages, interest, rent, or profits; and therefore if expenditures rise or fall, income must also rise or fall. It follows from these considerations that to stabilize either income or expenditure would tend to stabilize the other; and it is clear that stabilizing expenditure, or the money demand for goods, would also tend to prevent cyclical fluctuations of prices, production, and employment.

Other advantages of the income-expenditure approach to the problem of monetary stability include the familiarity and relative simplicity of the concepts employed, and the fact that both national income and national expenditure can be directly influenced by government fiscal policies, including those relating to taxation, government spending, and government borrowing.

Absolute stabilization of income, and of consumption and investment expenditures, is not possible, and probably is not desirable. As long as we have a free-enterprise economy in which individuals may make their own decisions as to whether to spend or hoard money, some fluctuations in expenditure seem inevitable. However, minor fluctuations are not serious and may have certain advantages. The important thing is to prevent, if possible, large and rapid changes which cause or permit wide cyclical fluctuations in prices, and in production and employment.

In the long run some *gradual* changes, either in income and expenditure or in the price level, would be highly desirable. As population grows and technology advances, our capacity to produce goods and services increases accordingly. However, if the price level, the national income, and the total volume of expenditure all remained constant, there would

be no demand for an increased output of goods. The result would be that as population grew, unemployment would appear, and average standards of living would drop because the limited supply of goods would have to be divided among more people. To prevent this development and to maintain both employment and production at satisfactory levels one of two things would have to happen. Either (1) the national income would have to increase to provide the increased expenditures needed to take a larger output of goods off the market or (2) the price level would have to decrease so that even without a larger money demand more goods could be purchased.

Stabilization of the price level. So far we have discussed two immediate objectives toward which monetary policy might be directed. One of these is the stabilization of *MV*, or the total volume of money payments; the other is the stabilization of money income, and the total expenditures of the final purchasers of goods and services. There is still another possible approach to the problem of monetary stability, and that is to emphasize stabilization of the price level as the immediate goal of monetary policy.

In a competitive economy control of the price level could be achieved only through effective control of total income and total expenditure. Control of income and expenditure is therefore a more basic approach to the problem of monetary stability than is control of the price level. Traditionally, however, the emphasis has been on price control, and the best-known proposals for achieving monetary stability have as their immediate aim stabilization of the price level.

Up to a generation or two ago economists were only mildly interested in cyclical fluctuations of production and employment. Their chief interest in money grew out of its effect on prices, and their interest in prices was derived from the fact that changes in the general price level caused a redistribution of wealth and income. That is, changes in the price level resulted in gains to some economic groups and losses to others.

When students of money first began to take a more active interest in its effects on production and employment, they usually assumed that the chain of causation was as follows: Changes in the quantity or velocity of money bring changes in the price level, and these in turn result in changes in the volume of production and employment. They did not clearly recognize that changes in the quantity and velocity of money cause changes in income and expenditure, and that it is the changes in

expenditure which are the chief direct cause of changes in the volume of sales, production, and employment. Changes in the price level actually serve, to some extent, as an offsetting factor. They tend somewhat to reduce the fluctuations in production and employment that would otherwise occur. It is clear, for example, that if money expenditures should fall 10 per cent there would be no decline whatever in sales, production, and employment, if the prices of *all* goods likewise fell 10 per cent.

Changes in prices, however, do not adequately offset the effects of a change in total expenditures. There are several reasons for this. First, even under favorable conditions, price changes take time and tend to lag behind changes in the money demand for goods. Second, price changes in themselves cause shifts in demand. For example, even a moderate price decline may cause people to withhold purchases in the expectation that prices will drop still lower. Third, though many prices may make quick adjustments, others are rigid or sticky, and respond little if at all to changes in demand. The existence of sticky prices helps to prevent an adequate adjustment of the general price level to changes in expenditure. Also, because some prices change greatly and others very little, the normal price relationships between different commodities are disrupted; and this fact in itself often has unfavorable repercussions on the volume of production and employment. One very sticky group of prices is wage rates. Sticky wage rates help keep costs up when commodity prices fall, thus intensifying cutbacks in production during recessions.

The price level and the distribution of wealth and income. As has already been noted, economists in the past were interested in money mainly because of its influence in bringing about changes in the price level, and they were interested in these price-level changes because of the resulting changes in the distribution of wealth and income. Changes in the price level, we shall find, always tend to benefit some groups and injure others.

When prices are rising people on relatively fixed incomes suffer loss because their purchasing power declines. Creditors also lose in the sense that the money which they receive in repayment of a loan will buy less than when it was originally lent. Debtors, on the other hand, usually gain, not so much because the dollars they repay will buy less than those they borrowed, but because at the higher price level they are likely to be able to earn the necessary dollars with less labor. Owners of business

enterprises also are likely to gain, because the prices of their products tend to rise faster than costs of production, with the result that profits rise even faster than prices.

Falling prices likewise benefit some groups and injure others. When prices are declining creditors gain (provided their claims are paid in full) while debtors tend to lose. People on relatively fixed incomes also gain as their purchasing power rises. Businessmen, however, generally lose because they have difficulty in reducing their costs in proportion to the drop in their gross income from sales.

These changes in the distribution of income which result from changes in the price level are often of considerable significance. However, taken by themselves, and apart from the changes in production and employment that usually accompany them, their importance can easily be exaggerated. If the changes are large and rather rapid, as in the years just after the Second World War, they may be a serious matter for certain groups. For example, after the Second World War the rise in prices greatly reduced the living standards of pensioners and schoolteachers. On the other hand, if changes in the price level occur gradually, people are likely to make adjustments to them without being conscious of any great gains or losses. However, changes in the price level are accompanied by other developments besides changes in the distribution of income, and some of these other changes are of considerable importance.

The Relation of Rising Prices to Business Recovery

In normal peacetime a moderate rise in the general price level is nearly always associated with the recovery phase of the business cycle. In terms of the equation of exchange, such a rise in prices means that MV is increasing somewhat faster than T. We can see this relationship more clearly if we write the equation in the form:

$$P = \frac{MV}{T}$$

When business activity is rising, M increases because the banks expand their loans and thus create new deposits, and V increases because confidence in the future causes people to be more willing to spend their cash balances. Expressed a little differently, rising prices in a period of recovery are the result of increasing business activity, and the accom-

panying rise in expenditures for consumption and investment. However, the rising prices are also a cause of increasing business activity, because they bring increased profit margins and help to create a state of optimism. As long as the rise in prices is relatively moderate, the accompanying developments seem to be almost wholly favorable.

Effects of extreme inflation of the price level. In modern times an extreme rise in the price level has always been the result of a great increase in the supply of money, created by a government to meet the costs of war or to meet obligations incurred as the result of war. The effects of such a rise in prices are almost wholly unfavorable, except to people who take advantage of them to make fortunes by speculation. About the only social advantage of an extreme rise in prices is that it reduces, or perhaps even cancels, the real burden of the national debt. Even this, however, is a somewhat questionable gain, for it is at the expense of bondholders who bought government obligations in good faith.

When inflation reaches such heights as in Germany in the early 1920's and in Greece, Hungary, and China after the Second World War, a state of great uncertainty develops. Each month or week, or even each day, people expect prices to rise. As a result, they lose interest in productive enterprise and concentrate their attention on speculation. When the rise in price has become so rapid that it is very noticeable from week to week, there develops a "flight from the currency." As soon as people receive money they rush out to spend it, for fear that if they wait a few days its value will be less. Likewise people avoid taking money if they possibly can, preferring goods of almost any kind. As a result, money ceases to perform its normal function as the generally accepted medium of exchange. This forces a partial return to barter; and since barter is not a practical way of carrying on trade under modern conditions, trade and production tend more and more to break down.

Extreme inflation causes extreme changes in the distribution of incomes. Holders of obligations payable in money, like pensions, bank accounts, and bonds, are completely wiped out, and white-collar workers like government employees and schoolteachers are likely to be reduced to the most abject poverty.

The relation of falling prices to business recession. A fall in the general price level is associated with the recession stage of the business cycle. In terms of the equation of exchange, the price level falls because MV

declines at a faster rate than T. M declines because a reduction in bank loans causes a reduction in the total volume of deposits. V declines because people are uncertain of the future, and become unwilling to spend their cash balances. It is often maintained that a decline in MV and in the price level is a result rather than a cause of business contraction. However, the causal relation runs both ways. Though business contraction may start a price decline, once this decline is under way it tends to bring about further contraction because it reduces profit margins and creates a general state of pessimism.

The developments that accompany a falling price level are generally unfavorable. However, as our economy now operates, declining prices are one of the factors which prepare the way for the next period of business recovery.

Some Questions Raised by a Policy of Price-level Stabilization

Should cyclical fluctuations, or the long-run trend, be stabilized? Assuming that some kind of price-level stabilization is desirable, the question arises as to whether we are interested in stabilizing cyclical fluctuations, stabilizing the long-run trend, or both. Today most economists would agree that stabilizing cyclical fluctuations is the more important consideration, because these are so closely associated with the great problem of depression unemployment. If price-stabilization programs are of any great significance, it is primarily because they might help to solve the problem of maintaining production and employment at satisfactory levels.

Whether long-run price trends are also important depends chiefly on the rate of change. A rise in prices at the rate of 5 per cent every ten years probably would not matter much. On the other hand, a rise of 20 per cent every ten years could cause serious hardship for many old people on pensions and for others with fixed incomes. Any persistent long-run tendency of prices to rise or fall could probably be offset by control of M, because V, though subject to wide fluctuations, has a tendency to return to a "normal" level. However, to avoid substantial cyclical fluctuations it would also be necessary to control V, either directly or by the device of controlling income and expenditure.

Which price index should be stabilized? Another problem which arises in connection with stabilizing the price level is to find an index number

which really represents the price level. Should one use an index of wholesale prices, an index of the cost of living, or an index which would attempt to include *all* prices? This is a question which would have to be weighed carefully if any program of price stabilization were actually undertaken. However, price stabilization at its best would not be perfect, and it seems probable that a reasonably satisfactory index number could be found or devised.

At what level should prices be stabilized? Still another question to be decided before a program of price stabilization could be undertaken would be the level at which to stabilize prices. Certainly one would not choose the level of prices prevailing in a depression. Presumably the wisest policy would be to stabilize prices at the level existing in some period when production and employment were relatively high, while at the same time there was no evidence of an extreme amount of speculative inflation. To try to stabilize prices when they had been raised to an abnormal level by speculation would needlessly endanger the success of the undertaking.

The remainder of this chapter is divided into three principal parts. The first will present and briefly discuss various proposals for achieving monetary stability by stabilizing the price level. The second will deal with certain proposals intended to bring about direct control of national income or national expenditure, or both. The third and final portion will discuss certain basic obstacles which tend to prevent stabilization of the economy by monetary measures.

Some Proposals for Stabilizing the Price Level

Would return to the gold standard aid in stabilizing the price level? We know from past experience that the gold standard would not really *stabilize* the price level. During the years when we were actually on the traditional gold standard, the price level fluctuated within rather wide limits. However, there are still writers who maintain that only a return to this standard can make our money really "sound"; and apparently by sound money they mean money which, because of its very nature, cannot depreciate greatly in value. If it is true that a return to the gold standard would prevent the price level from rising sufficiently to cause a serious decline in the value of money, then such a return

would at least contribute toward solving the problem of monetary stability.

Under the traditional gold standard all other forms of government money were freely redeemable in gold on demand. This fact limited the total quantity of such money that could be issued as long as the gold standard was maintained. If too much paper money was created, the government ran the risk of being unable to meet the demand for redemption in gold. In order to limit the issue of government paper money, it was also necessary to limit the volume of bank deposits, since the holder of a bank deposit can always withdraw it in currency at his own option.

Gold is a scarce and valuable commodity, and the total supply can be increased only slowly. Therefore, under the gold standard some limit has to be placed on the total supply of money and hence on total cash balances. Advocates of the gold standard maintain that this keeps total expenditures within limits, and thus prevents any great rise in the price level.

However, the protection which the gold standard seems to offer against extreme price inflation is largely an illusion. In normal times, even under a paper standard, it is not difficult for a government to resist the temptation to inflate the currency. On the other hand, when more money is urgently required for a national emergency, the gold standard presents no great obstacle to inflation because it can readily be abandoned. An alternative to abandonment of the gold standard is to keep reducing the legal gold content of the monetary unit. If the gold dollar were sufficiently "devalued" in terms of its gold content, a given amount of gold could support an unlimited amount of money.

We must, then, conclude that a return to the gold standard would contribute relatively little toward solving the problem of maintaining stable prices. In any case, the chances of reestablishing the traditional gold standard appear to be slight. The economic and political conditions which made it possible have largely disappeared. Meanwhile the nations of the world have acquired a great deal of experience in operating "managed" currencies which do not depend on gold.

The compensated dollar. An ingenious scheme for stabilizing the value of money is the compensated-dollar plan, developed and for some years advocated by the late Professor Irving Fisher.[3] This plan rests on the

[3] For a good account of Professor Fisher's role as an advocate of monetary reform, see REEVE, JOSEPH E., "Monetary Reform Movements," American Council on Public Affairs, Washington, D.C., 1943.

assumption that the value of money, and hence the price level, depends chiefly on the value of the gold contained in the monetary unit. Under the plan, gold would not actually be coined, but paper dollars would be redeemed freely on demand.

Without going into the details of the scheme, the essential idea is to offset changes in the value of the dollar by changing the amount of gold which it represents. Suppose, for example, the price index should rise from 100 to 101. That would mean that the value of gold and the value of the dollar had both fallen about 1 per cent.[4] To offset this, the gold content of the dollar would be increased 1 per cent in order to bring both prices and the value of money back to their former level.

However, even Professor Fisher recognized that increasing the gold in the dollar would not *automatically* bring down the price level. In actual fact, even under the gold standard, the effect would be very indirect and therefore uncertain. First, the increase in the gold content of the dollar would reduce the number of dollars represented by the country's gold reserves. This reduction in reserves might then cause a decline in M by bringing about a reduction in the amount of paper money in circulation and in the volume of bank deposits. Finally, if V meanwhile did not increase, the reduction in M would cause a reduction in MV, and this reduction in total money payments would tend to bring down the price level.

In time Professor Fisher himself apparently recognized that the compensated dollar would not be a very effective method of stabilizing prices, especially in the short run. After the United States went off the gold standard in 1933, he shifted his interest to a plan for requiring the banks to hold 100 per cent reserves against their deposits. This plan will be discussed a little later.

A multiple-commodity monetary standard. The gold standard is a *single*-commodity standard. Bimetallism, a monetary system once widely adopted, is based on two commodities, gold and silver.[5] A few writers have believed that the most effective way to stabilize the price level would be to develop a multiple-commodity standard. Dollars would be secured by and be redeemable in stocks of wheat, cotton, corn, and other commodities held in suitable warehouses. From the theoretical point of

[4] The exact amount of the fall would be 1/101.

[5] Bimetallism is not discussed in this chapter because there seems not even a remote possibility of its revival. It is of interest now only to the theorist, the historian, and the owner of silver mines.

view, the scheme is an interesting one, but obviously it would be very difficult to administer. One suspects, indeed, that it would prove wholly impractical.

Bank credit control. In recent years it has been pretty generally recognized that bank deposits are just as much a part of the total money supply as paper money and coin. Further, since bank deposits constitute by far the greater part of the money supply, those who believe that the price level depends largely on the amount of money in circulation have more and more turned their attention to the problem of regulating the volume of bank deposits. How effective any control of the quantity of money, without control of velocity, would be in stabilizing the price level is uncertain. However, it seems probable that stabilizing the volume of bank deposits would somewhat reduce fluctuations of the price level.

Discussion of the methods now employed to influence the volume of bank deposits will be deferred to the following chapter on Banking Problems. Both the Federal Reserve System and the Treasury now possess substantial powers to affect the volume of bank loans and investments, and hence the volume of deposits.

100 per cent reserves. A unique plan for stabilizing the money supply by stabilizing the total volume of bank deposits is to require 100 per cent reserves. It was proposed as early as the spring of 1933 by a group at the University of Chicago, and was later espoused by Professor Fisher and many others.

In detail the proposals of the various advocates of 100 per cent reserves vary somewhat, but the essentials of the plan are as follows: The government, through the Treasury or some other agency, would issue enough new money to buy sufficient of the assets of every bank to raise reserve ratios to 100 per cent of demand deposits. Thereafter each bank would be required to maintain a reserve of 100 per cent. It should be noted that the new money issued would not increase the total amount of money in general circulation, because it would all go into bank reserves. A bank which formerly had $100,000,000 of deposits with $20,000,000 in cash and $80,000,000 in securities behind them, would still have $100,000,000 of deposits, but these would be secured by $100,000,000 of cash and no securities.

The most important effect of the 100 per cent reserve plan would be to take away from the commercial banks most of their power to expand or contract the total volume of money. They could no longer create or

destroy demand deposits by expanding or contracting loans. After the plan was put into effect banks could make loans only to the extent of actual cash received in payment for capital stock, from profits, or from savings depositors.[6] They could not, as they now do, use part of the funds received from demand depositors as the basis of creating and lending additional deposit credits; for all the cash thus received would have to be held as a reserve against the original deposits. The public could change cash into demand deposits by taking it to the banks, or demand deposits into cash by withdrawing them; but the total amount of money would remain the same. At least, it would be very little affected by the credit policies of the banks.

The government, however, could create new money if it chose, either directly or through the Federal Reserve banks. As population, production, and the physical volume of trade (T) grew, a gradual increase in the supply of money might be desirable to prevent a fall in the price level.

The advocates of 100 per cent reserves believe that the plan, by stabilizing the total amount of money (M), would contribute substantially to stabilizing the price level and reducing cyclical fluctuations of business. It seems probable that they are correct in this belief, though just how much effect the plan would have, there is no way of knowing.

However, there is little likelihood that this plan will be adopted. In the first place it is somewhat technical, so that most people not trained in economics would have difficulty in understanding it. More serious, however, is the opposition of the banks. The plan would take from them the greater part of their *earning* assets in the form of government bonds and other securities, and substitute for these, *nonearning* cash.[7] This would force radical changes in the banking business. Earnings would be seriously reduced and many banks might be driven out of business. Perhaps the banks could avoid such results, but to do so they would have to find other sources of revenue such as heavier service charges on checking accounts. It is not surprising, therefore, that the banks are strongly opposed to the 100 per cent reserve plan.

[6] Savings deposits are sometimes regarded as investments rather than money because checks cannot be drawn against them and the banks have a right to demand 30 days' notice of withdrawal.

[7] However, one version of 100 per cent reserves would let the banks keep government bonds and count them as money.

A managed paper currency. Textbooks on money often discuss a "managed paper currency" as if it were a special and independent method of attempting to stabilize the price level. This is somewhat misleading, and doubtless grows out of the former custom of treating only coin and paper as money. If the gold standard was abandoned, writers thought that the money supply must then consist wholly of paper, supplemented of course by token coins. Actually, under modern conditions, the money supply consists principally of bank deposits, and the problem of control is almost entirely a matter of regulating the quantity of these deposits. This is true not only under a paper standard but even under the gold standard.

In a country like the United States, where most payments are made by check and the volume of bank deposits is extremely large, paper money is scarcely more than one form of small change. The amount of bank deposits in the country does not depend on the amount of paper money. Instead, the quantity of paper money is largely determined by the volume of bank deposits.

Bank deposits are created by the credit policies of the banks and the fiscal policies of the government. Once a given total amount of deposits is created, the public decides what portion of them it wishes to keep in the banks and what portion it wishes to withdraw and hold in paper and coin. When more bank deposits are created, and people have more money in the bank, they are sure to withdraw some of this increase in the form of paper money to carry in their pockets. If the banks do not have enough paper money to meet the demand they go to the Federal Reserve banks, and the Reserve banks create whatever amount is required by issuing Federal Reserve notes.

It is pretty clear, then, that managing the money supply of a modern country means controlling the volume of bank deposits rather than the volume of paper money.

Relation of the quantity of money (M) to total money payments (MV). The reader should note that most, if not all, of the above plans for stabilizing prices are aimed at stabilizing the *quantity* of money (M in the equation of exchange). However, in terms of the equation of exchange the factor which should be stabilized is the flow of money payments (MV). As noted earlier, it seems probable that stabilizing M would substantially reduce fluctuations in MV, but there is no way of

knowing to just what extent this would be true. Actual studies indicate that V sometimes fluctuates widely.

Control of M is highly desirable, but a more effective way to regulate prices, production, and employment would be to control national income and the expenditures of the final purchasers of goods and services. Such control would be difficult to achieve, but is not wholly inconceivable. The following paragraphs will deal with some proposed ways of regulating national income and national expenditure. All the methods suggested depend upon manipulating the fiscal policies of the government.

Control of Income and Expenditure through Fiscal Policy

Public-works expenditures. One of the most frequently suggested plans for stabilizing total expenditures, the demand for goods, and employment is a public-works program. Under this scheme, as declining expenditures of the public and of private business began to cause unemployment, the government would step in and fill the gap by rapidly stepping up its expenditures for public works. In order not to increase tax rates and thus bring on a further contraction of private spending, the government would finance the public-works program by selling bonds, thus increasing the public debt. However, the advocates of this plan usually assume that the accumulated debt could be paid off or greatly reduced during the next period of prosperity.

Several problems would be faced in any attempt to stabilize expenditures and employment by means of public works. First the program, to be effective, would have to be so carefully planned that it could be put into operation rather quickly. Second, it would have to be on a very large scale. Third, it is possible that it would seriously interfere with the recovery of private business by competing for materials and interfering with price and wage adjustments. Last, it would add substantially to the national debt, and it is very doubtful whether this increase in debt would or could be repaid in the next period of prosperity. There would always be strong political pressure to reduce taxes and to continue government spending.

Varying tax rates. Another possible method of stabilizing total national expenditures and hence employment would be to vary tax rates while keeping government expenditures constant. When business contraction sets in, with the accompanying decline in income, expenditure, and

employment, the government would reduce tax rates as rapidly as might be necessary to maintain at a constant level the disposable income of the public, that is, the income left over after payment of taxes. The theory is that if disposable income could be maintained, any shrinkage in expenditure and employment would be moderate and temporary. Of course, as the government reduced taxes it would incur a deficit, and it would have to meet this by the sale of bonds.

One great advantage of varying tax rates and holding expenditures constant, instead of keeping tax rates constant and varying expenditures, is that it might permit the stabilization of income and employment without requiring the creation of a large, unwieldy, and perhaps wasteful program of public works.

There would, to be sure, be difficulties. First, this particular line of attack on the problem of stability has not been widely publicized, and is therefore unfamiliar to most people. Second, a rapid decrease or increase in certain types of taxes, like excises and custom duties, would be impractical because it would have a very disorganizing effect on many kinds of business. Third, some taxpayers might not spend the extra money left to them as a result of reduced taxes, and therefore the stimulating effect on expenditures and employment might be very limited. Last, the maximum possible amount of tax reduction might not be sufficient to maintain the disposable income of the public at a satisfactory level.

Variation of tax rates for the purpose of stabilizing income, expenditure, and employment would work best if the Federal government derived the greater part of its revenues from income taxes on people in the middle and lower brackets, and from a general sales tax. If this were true, then a substantial reduction in taxes would probably be rather effective in offsetting business contraction by stimulating expenditure, and thus maintaining employment.

Alternating the distribution of income supplements with the application of a general sales tax. If a practical and positive method could be found of stabilizing the national income, it seems unlikely that there would be any serious cyclical fluctuations in expenditure, in prices, in production, or in employment. If as soon as income started to contract, the government should immediately mail checks to everybody—gifts from Washington—to make up the difference, no contraction of income could occur beyond the time it took to get the checks into and through

the mails. The government, of course, would have to create the required money either through the Federal Reserve banks or through a special agency established for the purpose.

Of course, the additional money created by the government would increase the cash balances of the public and soon there would be a rise in expenditures, prices, and incomes. To prevent incomes from rising too much and causing inflation, the process would soon have to be reversed. Instead of giving money to the people, the government would now have to start taking it away from them in order to keep disposable income from rising above the desired stable level. To take money away from the people, taxes would have to be increased. It might be best to raise income taxes; or it might be simpler and more effective to levy a general sales tax at rates which could be changed as circumstances required.

The authors do not discuss the above plan because they believe it is practical, but rather because it emphasizes the fact that the basic problem of monetary stabilization is the stabilization of money incomes and money expenditures.

A plan like the one presented would encounter innumerable obstacles. First of all, to politicians and the general public it would seem on a par with pulling rabbits out of a hat. If, however, it were taken seriously and tried out, problems like these would arise. How could changes in national income be determined quickly enough to be offset before they had made much progress? How would it be possible to guard those in control against serious errors of judgment? If money were to be distributed by the government, who would get it? Doubtless this last question would cause endless controversy; and the setting up of the machinery for the rapid distribution of the funds would be very difficult. Further, what kind of tax would be levied to prevent income and price inflation, and how would it be administered? And how could it be collected quickly enough to prevent inflation? These are only some of the difficulties that would beset any attempt to put this scheme into actual operation.

Two Obstacles to Monetary Stabilization

Monopoly as an obstacle to monetary stabilization. Most proposals for monetary stabilization assume that competition is the dominant

economic force which controls prices, production, and employment. However, in an economy in which most markets were controlled by monopolies, or even in an economy in which certain strategic markets were thus controlled, stabilization of money expenditures and prices might be wholly impractical. The reason is that each monopoly might keep raising prices for its own benefit.

Labor monopolies of the type represented by powerful unions hold an especially strategic position. Since by far the greater part of the ultimate cost of nearly all products is labor cost, if all labor were controlled by sufficiently strong unions, and if wage rates were constantly forced up, the general price level could not be held stable. Rising wage costs would continually increase it. As a result, if money expenditures were held constant, the amount of goods taken from the market would constantly decline, and likewise employment would decline. Under these conditions, the only way to maintain production and employment would be to provide for the continual inflation of money expenditures by a continual inflation of money incomes.

War as an obstacle to monetary stability. For any degree of monetary stability peace is an absolute essential, because of all causes of inflation, war is the greatest. For economic reasons as well as political reasons it is impossible to fight a great war without inflating the money supply, inflating incomes and expenditures, and inflating prices. The political obstacles to fighting a war without inflating the money supply are generally recognized, and grow largely out of the unwillingness of the public to bear extremely heavy taxes. However, the fact that there are also serious economic obstacles to fighting a war without inflation is often not understood.

As soon as a country is involved in a war, it becomes necessary to bring about a rapid expansion in the output of war goods, and in the capacity of the industries which produce them. The government must rapidly increase its expenditures, and it must offer sufficiently high prices for the goods and services required so that people will be induced to furnish them quickly and in great quantities. It is particularly important to offer premium wages in war industries, not only to draw workers from other occupations and to induce them to move from one place to another, but also to bring into war industries housewives, retired persons, and others who would normally not be in the labor market at all.

No matter how great the willingness of people to bear taxes, it would

be impossible for the government to obtain from this source all of the funds required in the emergency. To attempt to do so would not only injure morale, but would disrupt and cripple those normal economic processes which must go on even in time of war. Neither would it be possible to obtain all the funds needed from taxes plus the sale of bonds to individuals and nonbanking corporations. War requires a rapid expansion of total expenditure and total income for the nation, and it would be very difficult to bring this about wholly by an increase in the velocity of the already existing money supply. It can be brought about quickly, smoothly, and efficiently only by the creation of substantial amounts of new money, and the modern way of creating this money is for the government to sell a certain amount of bonds to the banks.

Though it is clear that some monetary inflation is necessary for the efficient prosecution of a war, it is not clear that in the Second World War we needed to inflate the money supply as much as we did. Creation of new money should be limited as much as possible without handicapping the war effort. Otherwise an acute problem of price inflation will be created, especially after the war is over. If during the Second World War the government had raised more funds by taxation, it would not have been necessary to create so much new money by selling bonds to the banks.

Once the money supply, wages, and incomes generally have been substantially raised by wartime inflation, contraction to the old levels is likely to be impossible. During the war any great rise in the price of civilian goods may be prevented by price controls and rationing. Further, during the war many kinds of consumer goods are not available and the increased incomes of the public are to a large extent siphoned off by taxes and the purchase of government bonds. However, once the war is over, people will have greatly increased incomes and will wish to spend them. This means that as soon as free markets are restored by the removal of rationing and price controls, a broad upsurge of the price level is inevitable. While the most important direct cause of such an increase in the price level is the wartime increase in money incomes, the basic cause which underlies this is the wartime increase in the money supply.

Price inflation, 1939–1948. The expansion of the money supply and of money incomes during the Second World War is an excellent example of the inflationary effects of war. While the greater part of the expansion

of money and money incomes occurred during the war, most of the resultant rise in prices was delayed until the postwar period. This was to be expected, for the reasons already given.

Table 20 shows clearly how prices during the war lagged behind the money supply and national income.

Table 20. The Money Supply, the National Income, the Wholesale Price Index, and the Cost-of-living Index, 1938–1948

Year	*Money supply* * *(millions)*	*National income* † *(billions)*	*Cost-of-living index* ‡ *(yearly average)*	*Wholesale price index* § *(yearly average)*
1939	$ 33,360	$ 72.5	99.4	77.1
1941	45,521	103.8	105.2	87.3
1943	71,853	168.3	123.6	103.1
1945	94,150	181.7	128.4	105.8
1947	108,433	202.5	159.2	151.8
1948	108,335	224.4	171.2	165.0

* Total demand deposits adjusted and currency outside banks, June 30 figures, from *Federal Reserve Bulletin.*

† Estimates of the U.S. Department of Commerce.

‡ Bureau of Labor Statistics index for moderate income families in large cities.

§ Bureau of Labor Statistics index.

In the postwar years inflation, or the "high cost of living," became a leading economic and political issue, and insistent demands arose from many sources for the government to do something about high prices. Some strongly urged a return to price controls and rationing. The majority of people, however, had somewhat unpleasant memories of wartime rationing, and were unwilling to return to it in time of peace.

It appears that there is only one really satisfactory way to avoid price inflation, and that is to avoid the inflation of the money supply and money incomes. This, however, is virtually impossible in time of war. Once the money supply and money incomes have been allowed to increase two or three times, a large rise in prices is the only possible way to restore equilibrium between supply and demand in free markets. An increase in the production of goods will help, but it is not physically possible to expand the output of goods rapidly enough.

While some of the rise in prices which resulted from wartime expansion of money and money incomes could have been prevented by a reimposition of direct price controls and rationing, it is probable that this would have been a greater evil than the price rise which it might have prevented. Price changes in free markets tend to bring about many desirable economic adjustments which would be interfered with by price controls. Furthermore, the costs of enforcing and administering price controls are very high for the government, business, and the general public. These costs are represented not alone by money, but also by inconvenience and wasted time. Again, direct price controls are very difficult to enforce. In time of war patriotism lines up public opinion behind them, but in time of peace black markets and other types of evasion would be certain to develop on a very large scale.

Perhaps, however, the most serious objection to the reimposition of direct price controls after the Second World War was that it would probably have been necessary to continue them indefinitely. The force that kept pushing prices upward was a great and more or less permanent increase in the spending power of the public. This force was bound to continue, and to exert upward pressure on prices until the price level was allowed to rise high enough to reestablish an equilibrium between supply and demand.

Price inflation is one of the problems for which an ounce of prevention is worth a pound of cure. The only adequate preventive of inflation is credit and fiscal policies which will prevent the money supply and the national income from expanding faster than the output of goods. In time of war, however, a rapid expansion of money and incomes appears to be unavoidable.

Conclusions

Monetary stability means stability of the price level, and of money incomes and expenditures. Formerly students of money were chiefly interested in the price level, but today their interest is centered in the flow of money expenditures.

Money exerts its effects on prices, production, and employment only through changes in total money expenditures. In terms of the equation of exchange, monetary stability would require stabilization of MV, the

total volume of money payments. There are some advantages, however, in approaching the problem of monetary stability in terms of stabilizing the national income, and the total expenditures of the final purchasers of goods and services. If control over these factors could be achieved, it should be easy to maintain a satisfactory level of prices, production, and employment. However, stabilization of income and expenditure is very difficult in a free-enterprise economy, and probably possible to only a limited degree.

The older plans for achieving monetary stability were designed to stabilize the price level by controlling the quantity of money. It is now clear that controlling the quantity of money without controlling its velocity would not stabilize the price level. It might, however, make a significant contribution. Most of the traditional plans are impractical, but the development of more adequate methods of controlling the total volume of bank credit is very desirable. If it were politically feasible, the 100 per cent reserves plan would merit serious consideration. If it cannot be adopted, then every effort should be made to develop more effective bank credit controls through the Federal Reserve System.

Fiscal policy is the most direct method of controlling the flow of money. It can be employed either to increase or to decrease the total volume of expenditures. It is therefore very important that, in the future, we make every effort to develop policies with respect to taxation, government spending, and the public debt that will tend to stabilize the total volume of spending. While the difficulties and the dangers involved are great, we can scarcely avoid them, and there seems to be in this direction real hope of making progress toward our goal. However, if we expect to achieve any great degree of monetary stability we must not allow monopoly to dominate our economy, and we must somehow solve the problem of war.

Review Questions

1. What is meant by "monetary stability"?
2. How does money exert its influence on prices, production, and employment?
3. Name at least three factors which tend to affect the total amount of money expenditures in a given period of time.

4. Why does a change in the quantity of money in circulation tend to change the price level?

5. State the equation of exchange and explain the meaning of each factor in it.

6. Why is the equation of exchange called a truism?

7. If the quantity of money, *M*, increases, what is likely to happen to the other factors in the equation of exchange?

8. What effect would stabilizing the expenditures of the final purchasers of goods and services have on prices, employment, and income?

9. Is stabilizing expenditures of the final purchasers of goods and services the same thing as stabilizing *MV*? Explain.

10. Why did monetary economists of an earlier day center their attention almost entirely on changes in the price level?

11. When money expenditures decline and the price level drops, is it the decline in money expenditures or the fall in the price level that is chiefly responsible for the resulting unemployment? Explain.

12. Explain how changes in the price level affect (1) people on fixed incomes, (2) creditors, (3) debtors, (4) businessmen.

13. Is the redistribution of income which results from changes in the price level a significant matter? Would the rapidity of the price changes affect your answer? Why?

14. What developments are associated with a moderate rise in the price level? With an extreme rise? With a fall in the price level?

15. If the price level were to be stabilized, what level should be chosen for this purpose? Why?

16. To what extent might a return to the gold standard stabilize the price level? Explain.

17. Explain the compensated-dollar plan. To what extent would it stabilize the price level? Give reasons for your answer.

18. What is a multiple-commodity standard?

19. Why is control of bank credit the only effective way to control the supply of money?

20. Explain the 100 per cent reserve plan. What is its greatest merit? What is the greatest obstacle to its adoption?

21. Why is it misleading to talk about a "managed paper currency" as if it were a special plan for stabilizing the price level and the value of money?

22. Is it nearer the truth to say that the volume of paper money determines the volume of bank deposits, or to say that the volume of bank deposits determines the volume of paper money? Explain.

23. Would stabilizing the quantity of money (M) stabilize the price level? Why or why not?

24. Explain the theory of stabilizing expenditures, employment, and income (1) by a public-works program; (2) by varying tax rates. Discuss the advantages and disadvantages of each method.

25. Explain the theory of stabilizing expenditures and employment by alternating the distribution of income supplements with the imposition of a general sales tax. List as many objections as you can to such a scheme.

26. Why is the growth of monopoly an obstacle to monetary stability?

27. Why is monetary stability impossible in time of war?

28. Discuss the advantages and disadvantages of direct price controls as a method of preventing price inflation.

29. What, if anything, do you think should have been done to meet the inflation problem after the Second World War?

Problems

1*a*. Suppose that the amount of money in circulation, including demand bank deposits, should double. Would prices rise? How much? Explain.

b. Suppose the final purchasers of goods and services should double their money expenditures, but without receiving any more goods and services than before. Would prices rise? How much? Explain.

2. Suppose the price level increases 10 per cent and the volume of goods and services purchased increases 10 per cent. Approximately what must the increase in total expenditures be?

3. If total expenditures for goods and services declined by $10 billion, how much would taxes have to be reduced to prevent any contraction of business activity? Can this question be answered definitely? Why or why not?

Suggested Readings

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7. Banking Problems

The Fundamental Banking Problem

In this chapter we shall discuss several banking problems, and each of them is of considerable importance. However, the basic problem for which we are seeking a solution is, *How can the operations of the banking system be made to contribute as much as possible to economic progress and stability?* We shall find that the most essential requirement of a good banking system is that it should provide a reasonably stable volume of bank deposits. Bank deposits are our most important form of money, and, as was explained in the previous chapter, a stable volume of money helps to stabilize expenditures, production, and employment.

However, before we can deal with the problem of controlling the volume of deposits, or with other banking problems, we must understand the nature of our banking system and how it behaves.

Banks and Other Financial Institutions

Banks are only one type of financial institution. Financial institutions include a broad category. They comprise all those business organizations whose primary activities are concerned with the handling of funds rather than the direct production of goods and services. In addition to ordinary commercial banks and savings banks, they include savings and loan associations, mortgage companies, finance companies, small loan companies, credit unions, insurance companies, investment trusts, investment banking firms, and various credit agencies owned in whole or in part by the Federal government.

In one way or another every financial institution serves as an intermediary between the savers and owners of funds and those who require the use of funds for either production or consumption. A corporation which sells its own stock or bonds in order to finance its own mining,

manufacturing, or merchandising operations is not a financial institution. However, if it sells stock or bonds in order to raise funds to lend or invest it falls within the category.

While the term "banking" is occasionally employed in such a broad sense as to include the activities of all financial institutions, it is more commonly used in a much narrower sense to describe the functions performed by commercial banks and savings banks. The primary characteristic of a bank, narrowly defined, is the acceptance of deposits. Lending is also an important function. A writer on the staff of the Board of Governors of the Federal Reserve System has defined a bank as "a financial institution which accepts money from the general public for deposit in a common fund, subject to withdrawal or to transfer by check, and which makes loans to the general public." [1] Commercial banks and savings banks are the only financial institutions which strictly fulfill the conditions of this definition. Other financial institutions, like savings and loan associations, accept funds from the public and make loans, but only commercial banks and savings banks accept true deposits.

In the strict sense a sum of money left with a financial institution is a deposit only if the person who leaves it has an unqualified right to withdraw it, either on demand or at some determinable date in the near future. Checking accounts may be withdrawn on demand. In case of savings accounts, however, the bank has a legal right to demand notice, usually thirty days.

Commercial Banks and Savings Banks

Traditionally the primary functions of a commercial bank are, first, to carry demand or checking deposits; and second, to make short-term loans to businessmen. In the past, writers on banking have felt that these two functions necessarily went together. They argued that since a commercial bank carried demand deposits, it must keep its assets highly liquid; and they thought that the best way to do this was for a bank to limit its investments to short-term self-liquidating loans, preferably repayable in 90 days or less.

By a "self-liquidating" loan was meant a loan made to carry out a

[1] "Banking Studies," Board of Governors of the Federal Reserve System, Washington, D.C., 1941, p. 88.

transaction which, on its completion, would furnish the funds for repayment. To illustrate this, let us suppose that a merchant borrows from his bank to buy a stock of goods. As soon as the goods are sold, he acquires funds which, presumably, enable him to repay his loan.

In the nineteenth century there were many banks that pretty well fitted the traditional concept of commercial banking. Others, however, were organized as savings banks, and specialized in the carrying of time deposits. These savings banks, since they were not obliged to pay their depositors on demand, felt free to invest a large portion of their funds in long-term securities like bonds and mortgages.

Today the distinction between commercial banks and savings banks has disappeared in most parts of the country, and the great majority of banks do a general banking business. By a commercial bank we now mean any ordinary bank which carries checking and savings accounts, makes loans, and provides various other customary services. Modern commercial banks not only carry savings and other time deposits, but they also invest the greater part of their funds in long-term securities, especially government bonds.

Though specialization in the acceptance of checking or savings accounts has disappeared in most parts of the country, there is one important exception. In the northeastern states there are a number of mutual savings banks which are limited by their charters to the acceptance of savings accounts. Some of these banks are large, and they exert considerable influence locally. As a group the mutual savings banks are well managed, and their record for safety has been unusually good.

In the present chapter we are primarily concerned with problems which relate to the commercial banks. Because the commercial banks furnish the greater part of our money supply, they are of strategic importance in our modern industrial economy. Their lending and investing operations are one of the major factors which influence the national rate of spending and the swings of the business cycle.

However, before we can discuss banking problems intelligently we must understand more clearly the significance of the operations of the commercial banks, and we must also understand the nature of the commercial banking system.

Economic functions of the commercial banks. Today the commercial banks perform at least five functions of greater or less economic importance to the community. First, they provide in the form of demand de-

posits the major part of the country's money supply. Second, through the system for clearing and collecting checks they provide a safe and convenient means for making and receiving payments. Third, by making short-term loans they provide business with an important part of its working capital. Fourth, they provide a means of investing, at interest, small savings. Fifth, they provide funds for the long-term investment market, especially for the purchase of government bonds.

Most of our readers have some knowledge of the operations of the commercial banks from their study of economic principles. It may be well to remind them, however, that bank deposits do not literally represent paper money or coin in a bank, since the banks keep on hand in the form of cash a very small fraction of their total deposits. Bank deposits are themselves money, that is to say, a means of making payments. Moreover, bank deposits are in large part actually "manufactured" by the banks themselves. When a bank lends a man $1,000 by crediting this amount in his bank book, a new deposit is created; and the total of all bank deposits in the country is $1,000 greater than before.

It should be clear that the banks as a group can increase the total amount of bank deposits in the country by increasing the total volume of their loans and investments.[2] Likewise they can decrease the total amount of bank deposits by decreasing the total volume of their loans and investments. The great increase in bank deposits during World War II was the direct result of a great increase in the amount of government bonds held by the commercial banks. These bonds, of course, represented long-term loans to the government.

The commercial banking system before and after 1913. The year 1913 represents a landmark in our banking history because it is the year in which the Federal Reserve System was established by the Federal Reserve Act. This Act greatly changed our banking system in some respects, but in other respects it brought very little change. The banks are still divided, just as they were before 1913, into two groups: state banks, or those chartered by the various states; and national banks, or those chartered by the Federal government. Now, as then, there are many banks of each type; most of them are relatively small, and some are not

[2] For a full explanation of the process of loan and deposit expansion see UMBREIT, MYRON H., ELGIN F. HUNT, and CHARLES V. KINTER, "Fundamentals of Economics." McGraw-Hill Book Company, Inc., New York, 1948, pp. 69–76.

too well managed. The situation has not, to be sure, remained wholly static. Since 1913 the average size of the banks has increased somewhat; and in most cases, it seems probable, the quality of the management has improved.

Although in some ways our banking system is much the same as before 1913, in two important respects it is very different.

In the first place, before 1913 the ultimate reserves of the commercial banks consisted of government paper money and coin held in the vaults of the banks themselves. For practical purposes the total amount of such money at any given time was *inelastic;* that is, there was no way of increasing it to meet unusual needs. If, as sometimes happened, the public demand for cash rose sharply, bank reserves dropped to dangerously low levels. The result was likely to be bank runs, bank failures, a financial crisis, and general business depression.

At present there is small danger of the banks getting into trouble merely because of a shortage of cash. Any bank which has good assets, and which belongs to the Federal Reserve System, can now borrow additional reserves from a Federal Reserve bank. If it needs cash to pay out over its counter, it can get Federal Reserve notes. The Reserve banks, within certain ultimate limits which will be explained later, can create these notes in any quantity required. It is said, therefore, that we now have an elastic currency.

Our present banking system differs in a second important respect from the earlier one. Before 1913 each bank was largely independent in determining its credit policies. There was no central bank or other coordinating agency. Now, however, the Federal Reserve System exists and exerts a very considerable influence over the credit policies of the commercial banks as a group.

The Federal Reserve System

The Federal Reserve Act of 1913 did not create a single central bank. Instead, it provided for dividing the country into a number of districts, and for the creation of a central bank in each district. Actually twelve Federal Reserve districts were established, with a Federal Reserve bank in each. Every national bank was required to belong to the system, and state banks were permitted to join if they met certain conditions. The

stock of each Federal Reserve bank was to be owned by the member banks of the district, and these banks also were to elect a majority of the board of directors. The Federal Reserve banks are, therefore, not government-owned institutions.

Though the Reserve banks are not government-owned, they are subject to a considerable amount of direct control. The body which now exercises this control is the Board of Governors of the Federal Reserve System at Washington. This board consists of seven members appointed by the President of the United States. It has direct representation on the board of directors of each Federal Reserve bank because it appoints three of the nine members of each board. It also controls the Federal Reserve System in a number of other ways, some of which we shall have occasion to discuss later.

The Reserve banks and the member banks. The Reserve banks are primarily bankers' banks. Ordinarily they do not deal with the general public, but receive deposits from and make loans to other banks only.[3] When member banks are temporarily short of funds they can borrow from the Reserve banks. They must, however, present satisfactory collateral. Most commonly this collateral takes the form of government bonds or commercial paper. By commercial paper we mean the drafts, acceptances, or promissory notes which the member banks receive when they make short-term loans to businessmen.

Member banks are required by law to keep their entire legal reserve on deposit with the Federal Reserve banks of their district. The legal reserves which member banks must hold against demand deposits vary. Banks are grouped according to the size of the towns in which they are located, and for each group the Board of Governors may determine the reserve ratio within certain limits. For "country" banks the ratio may vary from 7 to 14 per cent; for reserve city banks, which include those in most of our larger cities, it may vary from 10 to 20 per cent; for central reserve city banks (New York and Chicago) it may vary from 13 to 26 per cent.[4] The purpose of requiring the member banks to deposit their legal reserves in the Federal Reserve banks is to concentrate the

[3] Reserve banks do, of course, deal with the government; and under certain circumstances they may make direct loans to private business enterprises.

[4] In August, 1948, Congress granted the Board of Governors temporary authority to increase legal reserve ratios by 4 percentage points above the limits indicated. This authority subsequently expired.

reserves of the banking system. In this way they are made available as the basis for extending credit to any bank which needs help.

When a member bank borrows from a Federal Reserve bank it ordinarily takes the proceeds of the loan in the form of a credit to its account with the Reserve bank. If its purpose in borrowing is simply to maintain its legal reserve ratio, it will leave the borrowed funds on deposit; but if it needs pocket money to meet the demands of depositors, it will draw out cash. The Federal Reserve bank can, as we have seen, create this cash by issuing additional Federal Reserve notes.

Federal Reserve bank reserves. The reserve banks themselves must hold reserves against their deposits and also against Federal Reserve notes. Originally the requirement was 40 per cent against notes and 35 per cent against deposits. The reserve for notes had to be gold, but that for deposits could be held either in gold or any type of lawful (legal tender) money issued directly by the government. When gold was nationalized following the banking crisis of 1933, the Federal Reserve banks were required to deposit their gold with the Treasury in return for gold certificates, and they were also authorized to use these certificates for reserves in place of the metal itself. Later, by an act of June, 1945, the reserve ratios themselves were substantially reduced; and at the same time the use of lawful money as reserve against deposits was eliminated. The present reserve requirement for the Federal Reserve banks is 25 per cent in gold certificates against both deposits and Federal Reserve notes.

The ability of a Reserve bank to lend to member banks depends almost entirely upon the amount of surplus reserves which it holds. If its reserve ratio is down to the 25 per cent minimum, it cannot extend deposit credit or issue notes without impairing its legal ratio. On the other hand, if its reserves are well above the minimum, it is in a position to lend freely. In normal times the Reserve banks make it their business to carry substantial excess reserves so that they will be in a position to meet all legitimate demands for credit in times of need.

Federal Reserve notes. By authorizing the issue of Federal Reserve notes, the Act of 1913 created a new type of bank note. This note is not only an obligation of the Federal Reserve banks, but it is also a direct obligation of the government. At present Federal reserve notes must be

secured 100 per cent by collateral in the hands of the Federal Reserve agent.[5] This collateral must consist of not less than 25 per cent in gold certificates and not more than 75 per cent in commercial paper, or government bonds. If the Reserve banks choose, they may use as much as 100 per cent of gold certificates as the security behind notes.

A note had long been needed that could be issued in increased quantities whenever the banks experienced unusually heavy demands for cash. The procedure for creating additional notes is as follows: The Federal Reserve bank turns over to the Federal Reserve agent not less than 25 per cent in gold certificates, and in addition enough government bonds or commercial paper to raise the total security to 100 per cent. It then receives Federal Reserve notes which can be loaned to member banks or paid out to them when they draw cash against their accounts. Since a minimum of 25 per cent in gold certificates is needed as reserve, if enough other collateral is available every dollar in gold certificates is sufficient to permit the issue of four dollars in Federal Reserve notes.

Those who originally drew up the Federal Reserve Act intended that Federal Reserve notes should be elastic in the special sense of reflecting closely changes in the volume of commercial paper, and hence in the volume of business activity. Their expectations were largely disappointed from the beginning, because experience soon showed that there was no dependable relationship between the volume of commercial paper held by the Reserve banks and the demands of the public for cash.

Frequently there was a demand from the public for additional currency at a time when very little commercial paper was available. Since originally the use of government bonds as collateral was not legal, the Reserve banks often met such a situation by issuing Federal Reserve notes secured principally by gold.[6] However, after the Glass-Steagall Act of 1932 made it possible to substitute government bonds for commercial paper, these bonds came to be used more and more as the principal collateral behind Federal Reserve notes. Today the amount of com-

[5] A Federal Reserve agent is appointed by the Board of Governors as its direct representative with each Federal Reserve bank. He is not only a member of the board of the bank, but he also acts as its chairman. He is not, however, the chief executive officer. To fill this position the board of each Reserve bank elects a president.

[6] See "Banking Studies," Board of Governors of the Federal Reserve System, Washington, D.C., 1941, p. 77.

mercial paper behind the notes is relatively insignificant, and except for gold certificates, they are secured almost entirely by government bonds.[7]

Banking Problems

The remainder of this chapter will be devoted to a discussion of the more important economic problems which involve primarily the commercial banking system. Outstanding among these problems is the stabilization of the total volume of deposits through the stabilization of bank loans and investments. Stabilization of bank deposits is a matter of great economic importance because a fluctuating volume of bank deposits is one of the factors which cause, or which permit, wide fluctuations in production and employment. All the banking problems which we shall discuss relate in some degree to this problem of stabilizing the volume of deposits.

The other problems to which we shall give special attention are as follows: (1) the problem of centralizing control of the banking system, and especially control of credit policy; (2) the protection of depositors against losses; (3) branch banking and its possible extension; and (4) the question of whether the commercial banks should expand their operations in an attempt to meet more fully the needs of trade and industry for capital.

The problem of controlling the volume of bank credit. Controlling the volume of bank deposits is, of course, a monetary problem, since bank deposits are the principal part of our monetary supply. As a monetary problem some attention was given to it in the preceding chapter. However, it is also a banking problem because it is only through the mechanism of the banking system that any control of the volume of deposits is possible. In this chapter we shall approach it as a problem involving regulation or modification of the banking system.

Elasticity versus stability of bank deposits. Many writers on banking have maintained that an ideal bank-deposit currency should be highly elastic, that is, that it should expand or contract with the expansion or

[7] On Mar. 23, 1949, the collateral held against Federal Reserve notes was as follows: gold certificates, $13,204,000,000; government securities, $12,100,000,000; eligible commercial paper, $326,078,000. This means that considerably less than 2 per cent of the total collateral was in the form of commercial paper. See *Federal Reserve Bulletin*, April, 1949.

contraction of business activity. They have argued that since the basic function of money is to facilitate the exchange of goods, fluctuations in the volume of money should correspond to fluctuations in the volume of production and trade.[8] On its face this is a plausible theory. There is, nevertheless, reason to believe that it is incorrect when applied to cyclical fluctuations of production and trade. It seems highly probable that, in the course of a business cycle, stability of bank deposits is preferable to elasticity of deposits. We can even go further and say that under some circumstances it might even be desirable for the volume of bank deposits to move in a direction contrary to that of the general level of business activity.

Changes in the total volume of bank deposits are important chiefly because of the effect which they may have on production and employment. As has been noted earlier, the maintenance of production and employment at a high level depends on the maintenance of consumption and investment expenditures at a high level. Any shrinkage in the volume of bank deposits will tend to cause expenditures to fall off, because as people's bank balances shrink they become less willing to part with their money. It follows that in a period of declining business, instead of encouraging a contraction of bank deposits, we should do everything possible to prevent it. Maintaining people's cash balances is one method of discouraging a contraction in expenditures and in the demand for goods.

If we had an ideal banking system, the volume of bank deposits would not contract in a period of business recession. Neither, in a period of prosperity, would it continue to expand so as to cause an inflationary rise in prices. Instead, the volume of deposits would always adjust itself at the level best calculated to maintain a satisfactory rate of production and employment. This would probably mean expansion of deposits in a period of business recession, and contraction when there was danger of a speculative boom.

Actually, there is no particular quantity of bank deposits which, if maintained, would assure economic stability. This is because the amount

[8] The theory that the volume of bank deposits should fluctuate with changes in the volume of production and trade is closely related to the commercial-credit, or real-bills, doctrine of banking. For a thorough explanation of the fallacies involved in this doctrine, read MINTS, LLOYD W., "A History of Banking Theory," University of Chicago Press, Chicago, 1945.

of money which the public holds (M in the equation of exchange) is only one factor in determining total expenditures. The other factor is the velocity of money, or the average frequency with which each dollar is spent (V in the equation of exchange). Even if M were held constant, changes in V would permit wide fluctuations in expenditure, production, and employment.

Despite the fact that there is no ideal volume of bank deposits, we are safe in making the following general statements regarding the desirability of *changes* in the volume of deposits: (1) In a period of business recession, contraction of bank deposits is undesirable because it encourages further contraction of expenditures and employment. (2) When an inflationary boom is developing expansion of deposits is undesirable because it encourages a further increase in expenditures and tends to cause a speculative rise in prices. (3) In a period of depression it is desirable that the volume of bank deposits should expand, because such expansion might encourage an increase in expenditures, and thus bring about a rise in employment.

At the present time there is no agency in this country which exerts such positive control over bank deposits that it can readily adjust their volume to any desired level. However, Congress has provided both the Federal Reserve System and the Treasury with powers which enable them to exert a considerable amount of influence on the volume of deposits. We shall consider first the powers of the Federal Reserve System.

The Reserve bank discount rate. The Reserve bank discount rate refers to the rate of interest which the Reserve banks charge on loans to member banks. The discount rate is determined by the Board of Governors of the Federal Reserve System, and it is a means of influencing the total volume of bank loans and deposits because it affects, to some degree, the lending policies of the member banks.

The theory of bank credit control by means of the reserve discount rate is briefly as follows: An increase in the rate tends to check expansion of bank loans and deposits, or cause contraction. This is because a higher interest rate on loans from the Reserve banks will make member banks less willing to borrow in order to lend to their own customers. Conversely, a decrease in the discount rate tends to bring about an expansion of loans and deposits, because it makes the member banks more willing to borrow at the Reserve banks in order to extend credit to their own customers.

It should be noted, however, that a rise in the Reserve bank discount rate will have relatively little effect in preventing an expansion of credit if the member banks have large excess reserves of their own, so that they can expand their loans without borrowing additional funds from the Reserve banks. Furthermore, a fall in the discount rate will have little or no effect in bringing about an expansion of member bank loans and deposits if business is so depressed that there is no demand for loans.

Open-market operations. The open-market operations of the Federal Reserve System consist almost wholly of the purchase and sale of government obligations by the Federal Reserve banks. For convenience we shall refer to these obligations as bonds, but in fact they also include short-term government securities. Open-market transactions are under the control of the Open Market Committee, a group consisting of the seven members of the Board of Governors and five representatives elected by the Federal Reserve banks. Open-market operations may be used as a primary method of credit control, or they may be used to reinforce the effect of changes in the discount rate.

If the Open Market Committee wishes to check an expansion or cause a contraction of bank credit, it directs the Federal Reserve banks to sell government bonds. The money to pay for these bonds comes out of the reserves of the member banks, and therefore reduces their power to lend to their own customers. This is obviously true if the member banks themselves buy the bonds. It is equally true if the bonds are bought by the customers of the member banks and paid for by check, because the Reserve banks will deduct these checks from the reserve accounts of the member banks on which they are drawn.

When the Open Market Committee wishes to encourage the member banks to increase their loans and deposits, or stop contracting them, it directs the Reserve banks to buy government bonds. These bonds are paid for with drafts drawn on the Reserve banks. The drafts go directly to member banks, or else to customers of member banks who then bring them in for deposit. In either case the member banks deposit such drafts in their reserve accounts, and they are then in a position to expand further their loans and deposits.

Varying the legal reserve ratios of the member banks. As has already been noted, within certain limits the Board of Governors may change the legal reserve ratios of the member banks. If the Board wishes to discourage the expansion of member bank loans and deposits, it raises the

ratio, and thus forces the member banks to tie up larger amounts of funds in their reserve accounts. On the other hand, if the board wishes to encourage an expansion of loans and deposits, it reduces the legal reserve ratio, and thus releases some of the reserve funds of the member banks and makes these funds available for credit expansion.

Powers of the Treasury over bank credit. The Treasury exerts considerable influence over the credit policies of the banks, and hence over the total volume of deposits held by the public. This influence is principally the result of two factors: (1) the power which the Treasury has to increase or decrease its cash balance by issuing or retiring government securities; and (2) the discretion of the Treasury in determining the form in which the cash balance of the government is kept. Let us examine the way in which each of these factors operates.

Suppose, first, that the Treasury decides to increase its cash balance. If it sells government securities to the member banks, and leaves the proceeds with these banks in the form of deposit credits, there is no reduction in the member-bank reserves. There is, however, not only an increase in the cash balance of the Treasury, but also an increase in the deposits of the member banks. Because the member banks hold larger deposits they must hold larger legal reserves. As a result of larger reserve requirements, their power to make loans to business is reduced, and this reduces their power to increase the volume of deposits in the hands of the general public.

Let us now suppose that the Treasury, instead of increasing its cash balance, decides to reduce it by retiring government obligations held by the member banks. Suppose that bank X holds $1,000,000 worth of Treasury certificates and that, when these come due, the Treasury retires them by drawing a check for $1,000,000 against its account with bank X. Bank X deducts $1,000,000 from this Treasury account and surrenders the certificates. Because the deposits of bank X are now $1,000,000 smaller, a portion of its reserves is freed and is made available for the expansion of loans to the general public. If the member banks as a group should increase the total volume of their loans as the result of an increase in reserves, they would, of course, increase the total volume of their deposits.

It should be noted that when the Treasury retired the $1,000,000 of Treasury certificates held by bank X, it might have paid for them by giving bank X a check drawn against a government account in a Federal

Reserve bank. In this case the deposits of bank X would not have been reduced, but its reserves would have been increased by $1,000,000. As a result, its power to expand loans and deposits would have been increased even more than was the case in our illustration.

The Treasury can exert considerable influence over the credit policies of the member banks not only by changing the size of its cash balance, but also by merely changing the form in which this cash balance is held. If the Treasury holds very large balances, by withdrawing funds from member banks and depositing them in Federal Reserve banks it can substantially reduce member-bank reserves; and by reversing this procedure it can increase them.

The above paragraphs do not completely cover the methods by which the Treasury can exert influence over bank credit. They should suffice, however, to indicate that its powers are very considerable. These powers must be taken into account by anyone who hopes to understand our banking system, and the forces which determine the total volume of bank-deposit money.

Fiscal policy and the volume of bank deposits. The fiscal policies of the Federal government often exert a powerful influence on the volume of bank loans and investments, and hence on the volume of bank deposits.[9] This influence is most striking in time of war when government expenditures far exceed tax revenues, and when the additional funds spent are obtained by the sale of government bonds.

When the government borrows on a large scale by selling bonds, one result is a rapid rise in the total volume of bank deposits. This increase in bank deposits would not occur if all the bonds were sold to individuals or corporations other than banks, and if they were paid for out of savings. In this case, pocket money and bank deposits already in existence would be transferred to the government; and later, when the government paid its bills, they would be transferred back to the public. There would, however, be no change in the total supply of money. The rapid rise in bank deposits which takes place when the government puts large amounts of bonds on the market results from the fact that a considerable proportion of the bonds is purchased by banks.

[9] Most bank "investments" are in the form of bonds or mortgages, and may therefore be regarded as long-term loans. For the banking system as a whole an increase in either short-term loans or long-term investments will result in a corresponding increase in deposits.

When a bank buys government bonds, say $1,000,000 worth, it pays for them simply by giving the government a $1,000,000 deposit credit. Such a credit represents a brand new bank deposit. It did not come from any depositor of the bank. Indeed, it did not exist at all until the bank created it in order to buy this $1,000,000 worth of bonds. Once created, however, this deposit will continue to exist. The government, to be sure, will pay it out to meet various expenses; but the people who receive the government checks will for the most part deposit them in their own bank accounts. The public will then have $1,000,000 more in bank deposits than it had before.

The Second World War illustrates dramatically the effect of government borrowing on the volume of bank deposits. At the end of December, 1939, the total volume of deposits in the United States was something over 68 billion dollars. By the end of December, 1945, total deposits had risen to well over 165 billion dollars.

In the next 2½ years the movement was reversed to some extent. By June 30, 1947, total deposits had contracted to about 153 billion dollars. This was because the Treasury retired a substantial amount of bonds out of a very large cash balance which it held at the end of the war. Later in the year, however, deposits rose again to about 162 billion dollars. This was because the expansion of loans to business more than offset further retirement of government obligations by the Treasury.

Since 1947 there has been no important change in the total volume of bank deposits. No great reduction in the present amount is likely unless and until the government substantially reduces the public debt. That any great reduction in this debt will take place within the present generation (if ever) seems somewhat improbable.

Effect of the present policy of supporting the price of government bonds. Today the government is following the policy, inaugurated during the Second World War, of supporting the price of government bonds at or near par. To implement this policy, the Federal Reserve banks stand ready to buy, at the support price, any amount of bonds that may be offered in the market. The result is to destroy in large part the normal powers of the Reserve authorities and the Treasury to control bank credit. The banks hold over 70 billion dollars worth of government obligations. As long as they can sell these at a guaranteed price, they are in a position to acquire almost unlimited reserves. Raising the discount rate, or the legal reserve ratios, might have little effect in stopping credit

expansion. Obviously the Reserve banks could not sell government bonds to the member banks to reduce member-bank reserves, because they would have to buy them right back again to support the price.

The Problem of Centralizing Control of the Banking System

The relation of the Federal Reserve System to the Treasury. In the past most American writers on banking have urged that the governing board of the Federal Reserve System should be guided solely by business and economic considerations, and should therefore be as free of political influences as possible. In particular, they have objected to any legislation that would appear to give the Treasury a voice in the regulation of the Reserve system. This largely explains the fact that, while under the original Federal Reserve Act the Secretary of the Treasury and the Comptroller of the Currency were ex officio members of the old Federal Reserve Board, under the Banking Act of 1935 they were entirely excluded from membership in the new Board of Governors.

This failure to give the Secretary of the Treasury any official connection with the Board of Governors appears to have been a backward step. Experience shows that the powers of the Treasury over the banking system and its credit policies are necessarily very great. The Treasury exerts these powers, as we have seen, not only through its administration of government fiscal policy, but in several other ways. If the Treasury and the Board of Governors failed to cooperate, there would develop a truly chaotic situation. In practice they do and must cooperate. It appears, therefore, that any device which would make this cooperation closer and more effective should be welcomed and not rejected.

Factors which limit the control of the Reserve authorities over the banking system. Frequently writers on the Federal Reserve System tend to overlook or minimize its limitations as a centralized banking system. One of these limitations has just been explained, namely, the degree to which the Reserve authorities share with the Treasury powers of control over bank credit. A second limitation grows out of the fact that the Federal Reserve System is not a single, central bank. Instead it is twelve central banks; and while the activities of these twelve banks are pretty well coordinated through the Board of Governors and the Open Market Committee, the system is more cumbersome and control over bank credit

is somewhat less effective than would be the case if we had a single central bank.

A third limitation of the Federal Reserve System is that more than half of our banks do not belong to it. It is true that these nonmember banks are for the most part relatively small. Nevertheless they control all together something like one quarter of the nation's entire banking resources. In February, 1949, 6,913 banks belonged to the Federal Reserve System, while 7,777 did not.[10] Though the nonmember banks as a group are much less important than the member banks, their influence is still considerable. It seems highly desirable that they should be included in the Federal Reserve System.

Obstacles to Federal Reserve membership. Since state banks have the privilege of joining the Federal Reserve System, and many of them have done so, one naturally asks the question, Why are there still so many state banks that have failed to become Federal Reserve members? In general there seem to be two reasons for this. First, in order to join the Reserve system state banks must meet certain requirements, and many of them are unable to meet these requirements while others are unwilling to do so. Second, some of the services provided by the Federal Reserve System, like the collection of checks, are available to state banks whether they are members of the system or not.

The requirements for Federal Reserve membership which nonmember banks cannot or will not meet are varied. Many state banks cannot meet the minimum capital requirement, which goes as high as $200,000, for member banks in cities of 50,000 or over. Again, many state banks are unwilling to meet the Reserve system requirement that all checks be paid at par. Often such banks receive substantial revenue from exchange charges which they deduct from checks presented to them for payment through the clearing system. Still other obstacles to Federal Reserve membership are: reserve requirements more exacting than those found in the banking laws of most states; more rigid restriction of investments; more rigid regulation of relations with affiliates; and finally, stricter limitations of the making of loans.

The problem of bringing nonmember banks into the Reserve system. Since so many banks fail to join the Federal Reserve System voluntarily,

[10] Of the nonmember banks, 528 were mutual savings banks. Though relatively few in number, these mutual savings banks accounted for nearly half the assets of all nonmember banks.

some sort of legislation making membership compulsory would seem in order. The chief obstacles to such legislation are, first, the political influence of the nonmember banks and the state authorities interested in maintaining state-chartered banks; and second, the opposition in many quarters to further expansion of government controls of business. The advantages of bringing all banks into the Federal Reserve System are at least two. First, since the standards set for member banks are in most cases higher than those set for nonmember banks, if all banks were members of the Reserve system there should be fewer bank suspensions in times of business stress. Second, the power to control bank credit would be considerably strengthened.

Any plan for bringing all banks into the Reserve system should, of course, allow the nonmember banks a reasonable period of time to meet the requirements; and it might even be wise to make some concessions with respect to these requirements. Various methods for making membership compulsory might be employed by Congress. If deposit insurance were made available only to member banks, a large portion of the nonmember banks would undoubtedly join the Federal Reserve System. A more drastic and effective plan, however, would be to require all banks to become national banks by taking out Federal charters. Although such legislation might be contested in the courts, it seems probable that it falls within the constitutional powers of Congress.

The Problem of Protecting Depositors from Loss

The problem of protecting bank depositors from losses is directly related to the problem of stabilizing the total volume of deposits, because one cause of shrinkage in deposits is bank failures. Under ordinary conditions the effect of bank failures on deposits is quantitatively unimportant. However, in 1930, 1931, and 1932 bank failures were so widespread that they contributed substantially to the sharp contraction of deposits which occurred in these years.

Throughout most of their history the safety record of American banks as a group has been very poor. This poor record has been brought about by various circumstances, among which the following are important: (1) variations in the banking laws of the forty-eight states; (2) the small size and inadequate resources of many banks; (3) incompetent or irresponsible management; (4) the lack of a central bank to coordinate

credit policies, and to provide an elastic currency which would prevent the exhaustion of reserves in a crisis; and (5) inadequate regulation and supervision. To these factors might be added a sixth, namely, the lack of insurance for depositors in case of bank failures.

These weaknesses of the American banking system go far to explain the frequent difficulties which beset our banks. However, over the years some progress has been made. The average size of banks has increased somewhat; regulation and supervision have become more effective; and the quality of bank management has improved.

In the early years of the twentieth century many students of banking were convinced that the only thing lacking to make our banking system wholly satisfactory was some authority to exert centralized control of credit policy, and to provide an elastic currency so that the banks could meet unusual demands for cash. This need for centralized control and for an elastic currency was met to a large extent by the Federal Reserve Act of 1913. However, the Federal Reserve System set up by this Act was in some ways a great disappointment. As later events proved, it fell far short of creating a safe and sound banking system.

There were a number of reasons for this failure of the Federal Reserve System to live up to expectations. In the first place, as has already been noted, the system did not include all the banks. National banks were required to join it; but with state banks membership was optional, and most of them stayed outside. In the second place, the Federal Reserve System was merely imposed on an existing structure consisting of independent banks, most of which were small and therefore relatively weak; and after the establishment of the Federal Reserve System most of these banks were still small and weak. The Federal Reserve banks could lend them cash in emergencies as long as they had satisfactory collateral, but the Reserve banks could not prevent them from failing as a result of holding poor assets. In the third place, the Federal Reserve System itself possessed one characteristic which was perhaps unfortunate. It was set up in such a way that it could, on the basis of a given amount of reserves in gold and other government money, create a much greater total volume of currency and bank deposits than would have been possible under the old system. One writer has gone so far as to call the Federal Reserve System an "engine of inflation."

These inflationary powers of the Federal Reserve System have their advantages as well as their drawbacks. In both the First and Second

World Wars it was doubtless inevitable that the government should meet a substantial part of war costs through monetary inflation; and the Federal Reserve System provided the machinery by which this inflation could take place smoothly and efficiently. The Federal Reserve banks brought about the creation of new money either by buying government bonds directly in exchange for deposit credits, or by providing member banks with sufficient reserves so that they could create new deposits with which to buy bonds.

Though this power of the Reserve banks to inflate the money supply may be useful in time of war, when some inflation is inevitable, in time of peace it is less desirable. The expansion of the money supply made possible by the Federal Reserve System was one of the factors which supported the stock-market boom in the late 1920's. Had the money supply failed to expand, the boom would have collapsed sooner, and had this happened it is probable that the succeeding depression would have been less severe.

One thing at least is clear. Whatever other good or bad effects the Federal Reserve System may have had on our economy, it did not make our banks safe. From 1929 to 1933 we experienced the worst wave of bank failures in history, a wave that culminated in the temporary collapse of the whole banking system.

Solvency and liquidity. Solvency and liquidity are closely related but by no means identical concepts. A business is *solvent* if it is able to meet all its debts when they come due, and if the value of its assets is sufficient to cover its liabilities. This does not necessarily mean, however, that it could turn any substantial proportion of its assets into cash in a short time. Of course, assets can always be sold in a hurry for whatever they will bring, but in most cases such sales would result in very heavy losses and would bring on insolvency. On the other hand, if a business is highly *liquid* it can turn a large proportion of its assets into cash, in a relatively short time, and without suffering loss.

Every firm which expects to stay in business must remain solvent, but a high degree of liquidity is the exception rather than the rule. However, the traditional point of view with respect to the commercial banks has always been that they carry on a unique type of business which requires them to maintain a highly liquid condition. Since, it was said, the liabilities of a commercial bank consist principally of deposits payable on

demand, the bank must always be in a position to obtain large amounts of cash to meet any possible withdrawals.

For a bank to maintain its assets in a highly liquid condition is difficult. A bank is organized to make profits, and before it can do this it must cover the cost of doing business. This means that it must lend or invest most of its funds, and not hold them idle in the form of cash. However, to lend or invest large sums in such a way that they can be quickly turned back into cash is not easy.

The traditional formula for keeping a commercial bank in a sufficiently liquid condition was as follows: First, a certain fraction of its deposits should be kept in cash as a reserve, perhaps as much as 25 or 30 per cent. Second, the remainder of its deposits should be represented by short-term loans to businessmen, preferably loans maturing in not over 90 days. Third, some minor proportion of its funds might be employed for the purchase of sound long-term investments, such as bonds, mortgages, or even real estate. However, funds invested in this way should not represent demand deposits. Rather, they should represent capital, surplus, and, if the bank carried any, time deposits.

The theory behind the emphasis placed on short-term loans was that if the demands of depositors went beyond what could be met from cash reserves, additional cash could be obtained quickly from maturing loans. Normally as loans matured, a bank would use the cash obtained as the basis for making new loans. However, in case of need such cash could serve as a means of meeting heavy deposit withdrawals.

The theory that limiting investments largely to short-term business loans would insure sufficient liquidity was sound enough if applied to an individual bank, on the assumption that there was no general withdrawal of cash which affected all the banks. However, it was not a sound theory as applied to the banks as a group, at a time when they were all losing reserves because the public was hoarding cash. Since the only cash available for meeting the demands of the public was already in the banks, it is clear that one bank could increase its reserves only at the expense of reducing the reserves of other banks. When all the banks were striving to obtain additional cash by holding on to funds obtained from the repayment of loans, their efforts tended to cancel out. The principal results were, first, to reduce sharply the total volume of loans and deposits and, second, to bring on failures among the weaker banks. If the

situation developed into a "financial crisis," a general suspension of bank payments was sometimes necessary.

It is clear, then, that limiting banks to the making of short-term business loans is not an effective method of insuring a satisfactory degree of liquidity for the banking system as a whole; first, because it provides no means by which the banks as a group can obtain additional reserves; and second, because any attempt of the banks as a group to obtain more cash by reducing the volume of short-term loans is likely to cause failures, and to bring on a general contraction of business activity.

The only way to insure at all times sufficient liquidity for the banking system as a whole is to provide a central bank which can furnish the commercial banks with additional reserves, and with currency, to meet unusual demands. In this country we do not have a single central bank, but we have twelve Federal Reserve banks, and each acts as a central bank for its own district.

Under the Federal Reserve System the ability of the commercial banks to meet their obligations to depositors depends very little on whether they employ their funds in making short-term business loans, or in making long-term investments in mortgages and bonds. The important thing is that they choose investments which are sound and which will not deteriorate in value. If they experience unusual and unexpected demands for cash, they can always meet these by borrowing from a Federal Reserve bank. Of course, to borrow from a Reserve bank they must have acceptable collateral. Today, however, most banks have large amounts of such collateral in the form of bonds and other obligations of the United States government.

It has been noted that in former years many commercial banks carried demand deposits only. Though today commercial banks do a general banking business, their demand deposits still greatly exceed their time deposits. During the war this preponderance was substantially increased. While in 1939 the demand deposits of the commercial banks were only a little more than twice their time deposits, in 1947 this ratio was nearly 3 to 1.

Though the ratio of demand deposits to time deposits rose during the war, the ratio of loans to investments continued to decline. This decline, with occasional interruptions, had been going on for many years. In 1939 loans were already less than 75 per cent of investments, and during the war the ratio dropped to not much over 25 per cent. After the war a

reversal of this trend took place, but in 1949 loans were still considerably under 40 per cent of investments. Though both loans and investments increased during the war years, investments increased much more rapidly. Nearly all of the increase in investments was in the form of government securities.

Bank income. In order for a bank to remain solvent and protect the interests of both stockholders and depositors, it must receive adequate income from loans, investments, and services. This is necessary, first of all, to cover the expenses of doing business; second, to pay interest on savings and other time deposits; and third, to provide a return to stockholders.

In the depression years of the 1930's two factors made it difficult for banks to maintain adequate income. First, there was a shrinkage in the available volume of good commercial loans; and second, there was a continuing decline in the interest rate on high-grade bonds and mortgages. To some extent the banks met this problem by reducing interest on time deposits, and to some extent they met it by making higher charges for their services, for example, for the carrying of small checking accounts. A good many banks also went into the business of making small personal loans.

With the advent of the Second World War, the income problem of the banks was at least temporarily solved. Their holdings of government bonds were expanded so greatly that, even at low interest rates, their incomes rose sharply. However, in the years since the war there has been some contraction in bank holdings of government bonds, while wages and other banking costs have continued to rise. As a result, the maintenance of adequate income may again become a serious problem for the banks. Much depends on the available volume of commercial loans and the trend of interest rates. Doubtless the banks could increase their service charges if necessary, for these are still fairly moderate.

Bank regulation. An important factor in protecting the interests of bank depositors is government regulation and supervision. Banks were early recognized as quasi-public institutions, and government supervision of banking began well over a century ago. Today the system for examining and supervising the banks is highly developed, and it contributes substantially to the safety of these institutions. Unfortunately the complexity of our banking system results in dividing the responsibility for supervision among a number of more or less independent

agencies. Fortunately, however, these agencies cooperate rather well. The principal agencies responsible for examining and supervising banks are (1) state banking departments, (2) the Comptroller of the Currency, (3) the Federal Reserve System, and (4) the Federal Deposit Insurance Corporation.[11]

The Federal Deposit Insurance Corporation. The Federal Deposit Insurance Corporation, otherwise known as the FDIC, was established as a direct result of the great wave of bank failures from 1929 to 1933, and the feeling that something had to be done to reestablish the faith of depositors in the banking system.

Though the suspensions that occurred from 1929 to 1933 were on an unprecedented scale, the record of our banks for failures has been unbelievably bad throughout most of their history. Since 1933 the total number of banks in the United States has fluctuated in the neighborhood of 15,000. In earlier years the total was substantially larger. The record of American banking in regard to suspensions is shown in Table 21 for the period from 1921 through 1948.

This table shows a rapid decrease in bank suspensions after 1933. This decline merits comment. Unfortunately it does not prove that we have achieved a thoroughly sound banking system as a result of the reforms which have been adopted since the crisis in 1933. As a matter of fact, most of these reforms were minor.

The decline in failures, and their almost complete disappearance from 1943 to 1948, can be largely explained by the following circumstances. First, practically all the weak banks were weeded out by the contraction of business and the great deflation of real-estate prices that took place in 1930, 1931, 1932, and the spring of 1933. Second, after the bank "holidays" of 1933 the trend of business and prices was upward, and though recovery was slow and halting, nearly all the banks still surviving were able to improve their position. Third and last, after the outbreak of war in 1939, bank earnings rose rapidly as the result of a great increase in their holdings of government bonds.

When the FDIC was set up in 1933, deposit insurance was not a new experiment in this country. The first attempt to insure bank deposits by

[11] For a good description of the way in which the commercial banking system is supervised, see LEONARD, ROBERT F., "Supervision of the Commercial Banking System," in "Banking Studies," Board of Governors of the Federal Reserve System, Washington, D.C., 1941.

Table 21. Bank Suspensions, 1921–1948

Year	*Number of suspensions*	*Year*	*Number of suspensions*
1921	505	1935	34
1922	367	1936	44
1923	646	1937	59
1924	775	1938	55
1925	618	1939	42
1926	976	1940	22
1927	669	1941	8
1928	499	1942	9
1929	659	1943	4
1930	1,352	1944	1
1931	2,294	1945	0
1932	1,456	1946	0
1933	629	1947	1
1934	57	1948	0

setting up a fund to which all banks should contribute was the Safety Fund System of New York state, established in 1828. Later, however, this New York system was modified to apply to bank notes only, and not deposits. Many years later there was a revival of interest in state deposit insurance schemes. Beginning with Oklahoma in 1907, several states set up plans similar to the original one in New York. However, none of these experiments was successful. Sooner or later failures occurred on such a scale that the insurance funds were insufficient to meet losses.

The fact that state bank-insurance plans have generally failed is not evidence that the FDIC will fail. The FDIC is established on a much larger and firmer basis. It has the support of both the Federal government and the Federal Reserve System. All banks which are members of the Reserve system must insure their deposits, and nonmember banks may do so if they meet certain requirements. Insurance coverage on each depositor's account is limited to $5,000. Under the plan, each bank must pay a yearly premium of $\frac{1}{12}$ per cent of its total deposits.

The effect of the FDIC is to make all deposits in insured banks perfectly safe up to $5,000. That is to say, they are perfectly safe at the

present time. However, it is by no means certain that the FDIC will be able to weather any and all business storms that may arise in the future. We still have a banking system consisting of a great number of independent banks, most of them relatively small and weak; and we still have a banking system many of whose banks remain outside the central coordinating agency, the Federal Reserve System. There is no certainty that bank failures may not occur in some future depression on such a scale as to exhaust the reserves of the FDIC. If that should happen, it is quite possible that Congress would come to the rescue with additional funds, but nothing in the present plan insures this.

Branch Banking

We have noted that until recent years one of the most striking characteristics of the American banking system has been the constant occurrence of bank suspensions. It seems clear that these failures have partly resulted from the fact that we have had such a large number of small, independent banks. Many writers have made unfavorable comparisons of the situation in the United States with that in Canada or England, where bank failures are practically unknown. They have pointed out that one reason for the remarkable safety record of the banks in Canada and England is that in those countries all of the banking business is in the hands of a few large, well-managed banks, which cover the entire country through a system of branches. Many people believe that if nation-wide branch banking were permitted in this country, the resulting absorption of small and weak banks by larger institutions would greatly increase the soundness of our entire banking system.

The opposition to branch banking is, however, powerful. It comes first from all the small and medium-sized banks throughout the country who wish to protect their independence and their competitive position. It comes also from all those groups in our society who fear the growth of large-scale business, and who are opposed to further concentration of financial power. Then, too, the opponents of branch banking usually maintain that the banking needs of smaller communities will not be adequately met by a branch of some bank whose home office is in a large city. They believe that a small independent bank is much more likely to give good service, because it will generally be operated by

local businessmen who have a stake in the community, and who understand its needs.

However, in spite of opposition, branch banking has made considerable progress in the United States. While it is not permitted on a national scale, by 1940 it had been authorized to some degree by thirty-five states. Of these thirty-five, eighteen permit the establishment of branch offices throughout the state. According to C. E. Cagle, "At the end of 1939 there were 934 banks that operated branches, about 6.5 per cent of all commercial banks in the United States. They had deposits aggregating 30.8 billion dollars or about 54.1 per cent of all commercial bank deposits. With their 3,491 branches, they accounted for 24.7 per cent of the 17,911 commercial banking offices in the United States." [12]

In general, national banks are permitted to establish branches in states which permit state banks to do so. However, even in such states national banks and other Federal Reserve member banks are usually somewhat more restricted in their power to establish branches than are nonmember state banks.

The state in which branch banking has had the greatest development is California. In this state the Bank of America has developed the largest branch-banking system in the country. As a result, this bank now has larger assets than any other bank in the United States.

The Role of the Commercial Banks in Providing Business with Investment Capital

Commercial banks as sources of investment capital. As already noted, an important traditional function of the commercial banks is to furnish short-term or working capital to business. This function is still important, though today short-term commercial loans are a relatively small portion of the total loans and investments of a typical bank. While commercial loans have shrunk in relative importance, real-estate loans and consumer loans have increased; but the greatest change in the nature of bank assets has been the large increase in long-term investments. This increase in long-term investments, however, does not mean that the commercial banks are directly furnishing any great part of the needs of business for

[12] "Banking Studies," Board of Governors of the Federal Reserve System, Washington, D.C., 1941, p. 121.

fixed capital. The reason is that most of the long-term investments of the banks consist of government securities.

Indirectly the commercial banks are a factor of some importance in providing business with investment capital. For example, by furnishing working capital, the banks enable business firms to employ more of their own funds in making fixed investments. Banks also make short-term loans to brokers to finance the purchase of securities on margin. These funds go into the hands of people who sell the securities, and often a large part of such funds is used to purchase new issues of stocks or bonds. Again, the commercial banks often lend directly to investment-banking firms, which in turn furnish corporations with new capital.

Limited power of the commercial banks to provide investment funds. The question naturally arises, Why do not the commercial banks provide a larger proportion of the long-term funds required by business? Where firms are well established but not large enough to float security issues in the investment market, why do not the local banks buy such issues outright with their own funds? The answer is, first, that the risk is too great; and second, that banks are limited by law as to the types of securities in which they can invest. They may buy high-grade bonds, but not common or preferred stocks. The nature of their obligations to their depositors requires banks to reduce risk to a minimum. Government bonds are an ideal form of long-term investment for them, first, because such bonds are sure to be paid in full on maturity; second, because the Federal Reserve System and the Treasury are likely to make efforts to stabilize their market value; and third because the Federal Reserve banks will accept them as collateral for loans. Considering all the factors involved, the commercial banks can hardly be expected to furnish long-term capital to business where any great amount of risk is involved.

The proposal to establish special "capital banks." Many students of the investment market believe that it does not, as now organized, adequately meet the capital requirements of small or moderate-sized business firms. Since the commercial banks are unable to enter this field, they believe that there is need for a new kind of financial institution. The primary function of such an institution would be to provide firms of this type with intermediate-period or long-term risk capital.

In a recent policy statement dealing with the special problems of small business, the Committee for Economic Development suggests the

setting up of special "capital banks" as a kind of extension of the present commercial banking system.[13] The commercial banks would be permitted to subscribe for the stock of these capital banks, and individuals and business firms would also be permitted to do so. The chief clientele of a capital bank might be customers referred to it by the commercial banks. The capital bank would provide funds where the commercial banks could not. It would make long-term loans to small and medium-sized firms, or purchase their securities. These securities could include not only bonds, but also preferred and common stock. A few corporations of this type have already been created, and the outlook for their future growth seems encouraging.

Conclusions

Our banking system, if wisely organized and controlled, can make important contributions to economic progress and stability. The most important banking problem is to find ways of stabilizing the total volume of deposits. This involves controlling the lending and investing policies of the banks. It is especially desirable that bank deposits should not be permitted to contract in a period of business recession; nor to expand further at a time when prosperity has brought on a wave of speculative buying.

The Board of Governors of the Federal Reserve System shares with the Treasury powers which, if wisely used, should go a long way toward stabilizing bank credit and the total volume of deposits. In addition, the government can exert a powerful influence on bank deposits through its fiscal policies. If our banking system is to serve the public welfare, all our government agencies which have powers over bank credit must coordinate their policies.

One of the weaknesses of our banking system is that many banks remain outside the Federal Reserve System. To facilitate control of the credit policies of the banks as a group, it would seem wise to require all banks to become Federal Reserve members.

Another great weakness of the American banking system has been the frequency of failures. When failures have been widespread they have not only brought losses to individual depositors but they also have helped

[13] "Meeting the Special Problems of Small Business," Committee for Economic Development, New York, 1947.

to bring on depression by undermining business confidence and reducing the money supply of the country. Establishment of the FDIC has contributed to the safety of American banks; and it seems probable that an expansion of branch banking would further strengthen their position because it would eliminate many small and weak banks.

Because of legal restrictions, and the nature of their obligations to their depositors, the commercial banks are not in a position to meet the needs of business for long-term risk capital. To fill the need for such capital, especially on the part of small and medium-sized firms, the establishment of so-called capital banks would seem desirable. These would not be banks in the strict sense, but they would supplement our commercial banking system.

Review Questions

1. What are the traditional functions of a commercial bank? What are its actual functions today?
2. Why did the older writers on banking usually argue that a commercial bank should employ most of its funds in making business loans repayable in 90 days or less?
3. In what two important ways was our commercial banking system changed by the Federal Reserve Act?
4. Describe the structure of the Federal Reserve System.
5. What are the chief services that the Reserve banks perform for the member banks?
6. Explain the reserve requirements for member banks; for Reserve banks.
7. What is the chief limitation on the ability of a Reserve bank to lend to a member bank?
8. Explain how Federal Reserve notes are issued. In what sense are these notes elastic?
9. What changes in the volume of bank deposits would be desirable during the course of a business cycle? Explain.
10. Explain how, in theory, the Board of Governors may influence the volume of bank deposits by employing (1) the Federal Reserve discount rate; (2) open-market operations; (3) variations in the legal reserve ratios of member banks.

11. Explain how the Treasury may influence bank credit (1) by increasing or decreasing its cash balance, and (2) by changing the form in which its cash balance is kept.

12. Explain how expansion or contraction of the government debt affects the volume of bank deposits.

13. Why should the Federal Reserve System and the Treasury always cooperate closely?

14. State three important limitations of the Federal Reserve System as an agency for controlling the banking system.

15. What would be the advantage of bringing all banks into the Federal Reserve System? What are the principal obstacles which prevent many state banks from voluntarily joining?

16. What are the chief obstacles to legislation requiring all state banks to become Federal Reserve members? What methods might be used to bring these banks into the Reserve system?

17. Why has the safety record of American banks been so poor throughout most of their history?

18. Why did the Federal Reserve Act fail to give us a safe banking system?

19. What was wrong with the theory that the commercial banks as a group could keep their assets liquid by simply employing most of their funds in making short-term commercial loans?

20. What is the most satisfactory method of insuring, at all times, sufficient liquidity of the commercial banks as a group?

21. What changes have taken place in recent years in the nature of the assets of the commercial banks? Are these changes a cause for alarm?

22. What factors made it difficult for banks to maintain their incomes in the 1930's? How was this situation met?

23. What are the principal agencies responsible for examining and supervising banks in the United States?

24. Account for the rapid decline in bank failures in the years following 1933.

25. Describe the FDIC insurance plan. Why is its ultimate success not completely certain?

26. What are the arguments for and against branch banking?

27. What is the present status of branch banking in the United States?

28. What prevents the commercial banks from furnishing directly any great part of the long-term capital required by business?

29. What kinds of business firms are most likely to have difficulty in obtaining investment funds in the present market? How has the Committee for Economic Development suggested meeting this problem?

Problems

1. In a publication of the American Bankers Association[14] the following statement appears: "The American Bankers Association is on record in favor of the dual system, under which the state legislatures exercise the right to supervise banks under their jurisdictions. . . . In carrying on its support of the dual system, the Association has taken a definite stand opposing compulsory membership of insured banks in the Federal Reserve System."

Would you support the position indicated in this statement? Defend your point of view.

2. In the publication just referred to the following statement is also found: "We favor continuance of the present law under which the Secretary of the Treasury is not a member of the Federal Reserve Board. If this conclusion is adopted, however, it becomes essential, especially under present conditions, to arrange for frequent conferences with the Secretary."

Do you think the Secretary of the Treasury should or should not have a place on the Board of Governors of the Federal Reserve System? Defend your answer.

3. Many of the older writers on banking maintained that the volume of bank loans and deposits should expand or contract in proportion to any increase or decrease in the volume of trade.

a. Do you agree? Why or why not?

b. Under what circumstances might expansion or contraction of the total volume of bank deposits be desirable?

Suggested Readings

Board of Governors of the Federal Reserve System: "The Federal Reserve System, Its Purposes and Functions," Board of Governors of the Federal Reserve System, Washington, D.C., 1947.

[14] "The Answers of the American Bankers Association," New York, 1941.

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KENT, RAYMOND P.: "Money and Banking," Rinehart & Company, Inc., New York, 1947, Chaps. 27 and 28.

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SAMUELSON, PAUL A.: "Economics," McGraw-Hill Book Company, Inc., New York, 1948, Chaps. 14 and 15.

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8. Public Finance

The relative importance of government in economic life has been increasing throughout the whole world during most of this century. Even in the United States, the last bulwark of free enterprise, the Federal budget, a 6-pound volume in fine print, has come to be the most important book published each year. The level of government spending has been moving steadily upward until now the taxing and spending policies of our Federal government create some of our major economic problems. In the present chapter we shall consider how the raising and spending of government revenues affect our over-all problem of increasing the stability of the economy and promoting economic progress. Our study will include the fiscal activities of national, state, and local governments.

The problems of government finance. Let us chart our course carefully before embarking on the study of a field which reaches into many phases of economic life. What are the principal problems involved in the financing of government? Let us state them briefly.

1. To strike an acceptable balance between the amount of services furnished by government and the goods and services provided by private enterprises.
2. To find the best methods of raising the large sums required by government.
3. To use government revenues and expenditures so as to achieve our social and political objectives.
4. To allocate revenue sources between different layers of government.
5. To determine whether the government should attempt to stabilize economic activity.
6. To determine the desirability of an annually balanced government budget in contrast to one cyclically balanced.

Some of the above problems are closely interrelated. This is well illustrated by problems 5 and 6. If the government acts aggressively to

alleviate business depressions, it cannot expect to achieve a balance between its expenditures and revenues every year. The best it can do is to attain a cyclical balance. Many careful students of public finance, however, are reluctant to accept the principle of a cyclical in contrast to an annual balance. They point to the difficulty of achieving a cyclical balance in a democracy, where clamors for new spending or tax reduction arise whenever a surplus appears. In our discussion of questions of government finance we shall find that no one of them can be answered in complete isolation from the others.

Public finance in contrast to business or private finance. Public finance deals with the financing of organized governments of various kinds. There are both differences and similarities between public and private finance. Both governments and business firms receive revenues which they disburse. Both, as a rule, seek to observe practices which are regarded as sound from an accounting standpoint. Both must borrow when revenues are inadequate to meet expenditures on a current basis, or when capital expenditures are contemplated.

One of the important differences between public and private finance is the objective of expenditures. Spending by business firms is done in expectation that it will increase revenues. The objective of most government spending is an increase in the public welfare. It would be impossible to evaluate government spending in terms of the income produced. How much income results from the building of a public park or a superhighway? Even when public spending is directly designed to increase the national income, the government itself gets back only that portion it collects in taxes. Take, as an example, government spending for public works during a depression. It is private citizens who receive most of the income which is generated.

The relationship between the revenues and expenditures of a government also differs from that of a business firm. A private concern allocates its spending after a careful estimate of the revenues it will receive. Prospective revenues impose a limit on spending if a concern is to remain solvent. Government, on the other hand, has much more latitude in regard to revenues. It first determines the level of spending which is in the public interest. Then it adjusts its revenues to cover this. It can control revenues because of its taxing powers. There are, however, circumstances in which governments cannot expect to cover all spending in a particular year. In this case they borrow, just as businesses do in

similar circumstances. However, a business has limited control over its present or future revenues, whereas the power to tax means that a government can increase its income within very wide limits. The people do not have to buy the products of a particular business concern, but they must pay taxes.

A discussion of the similarities and differences of public and private finance is certain to be controversial. In some quarters it is felt that the public welfare is sacrificed when our fiscal authorities hold to the tenets regarded as sound by private business. Those who believe this argue that the frugality of a Marcus Cato in matters of the public purse may please members of a Union League Club, but in an industrialized society such frugality lengthens breadlines during a depression. In contrast, those who advocate wider use of private business practices in public finance point with accusing fingers to the waste of public funds, the huge public debts, and monetary inflation. These are proof, they say, that governments, as well as individuals and businesses, should live within their incomes. We shall examine some of these controversial questions later in this chapter.

The increasing importance of government in economic life. The increasing importance of government in the economic life of all nations has been viewed with mixed emotions. Some hail this drift toward greater economic power in the hands of the state as a step in progress. They claim that only government is strong enough, or impartial enough, to cope with the complex economic problems of modern civilization. On the other hand, some view with regret the growing encroachment of government upon private economic affairs. The production of all commodities and most services was formerly regarded as the private domain of individuals who were free to act as they chose as long as they observed the fundamental rules of fair play. Adherents of free enterprise point with pride to the standard of living achieved in the United States under the free-enterprise system.

Even in the United States, however, the government is now playing a major economic role. The 165,000 different units of government, ranging from the Federal government to mosquito-abatement districts, collect and spend nearly $60 billion a year, or approximately 25 per cent of the gross national output of goods and services. In the first postwar years, our Federal budget declined, but it soon started to climb again until

it is now five times prewar levels. The cries of hard-pressed state and local governments for even more revenue are heard on every hand.

It is sobering to glance backward and note the increasing sums, both in dollars and in relation to our total output of goods and services, that have been channeled through government. The change is indicated by Table 22 below:

Table 22. Government Expenditures in Relation to Gross National Product

Calendar years	*Gross national product (billions)*	*Expenditures of all governments, U.S. (billions)*	*Expenditures as a percentage of G.N.P.*
1929	$103.8	$10.3	9.9
1937	90.2	15.4	17.1
1939	90.4	18.3	20.2
1946	203.7	47.8	23.5
1949	256.9	58.6	22.8

Source: Compiled from U.S. Department of Commerce data.

Table 22 shows how the relative importance of government has been increasing in our economy. While gross national product increased two-and-a-half times between 1929 and 1949, expenditures by government rose nearly sixfold.

The increase in Federal, state, and local expenditures. Table 23 shows the increase in Federal, state, and local expenditures in recent years. Even before 1929 the rise in the cost of government was evident. For example, Federal expenditures settled down for several years after World War I on a plateau roughly four to five times that of prewar. However, the big upward push, first due to the great depression, and later to the Second World War, came in the period covered by the table.

The larger increase in spending, as indicated by Table 23, has been in the outlays of the Federal government. During the Second World War these outlays reached astronomical proportions, and more than half were made with borrowed funds. State and local governments held back on capital expenditures in the war years. They deferred street and highway outlays and other public plant expenditures because of short-

Table 23. Government Expenditures in the United States, 1929–1948

(*In billions for calendar years*)

Year	Federal	State and local	Year	Federal	State and local
1929	$2.6	$7.7	1939	$ 9.0	$ 9.3
1930	2.8	8.4	1940	10.1	9.1
1931	4.1	8.4	1941	20.5	9.0
1932	3.2	7.6	1942	56.2	8.8
1933	4.0	7.1	1943	86.0	8.4
1934	6.4	8.1	1944	95.6	8.5
1935	6.5	8.4	1945	84.9	9.1
1935	6.5	8.0	1946	36.6	11.2
1937	7.2	8.2	1947	37.4	15.0
1938	8.5	8.9	1948	33.8	17.0

Source: U.S. Department of Commerce.

ages of materials and labor. However, expenditures of this type were stepped up in the postwar period, when long-deferred public projects were undertaken. In 1948, for example, public works in the United States reached a record peacetime high of $4 billion. It appears that state and local expenditures will never return to prewar levels, because of the increased demand for public services.

Multiplicity of governmental units. A student of government finance is struck by the multiplicity of governmental units in the United States. Although recently there has been a movement toward consolidation of some units at the local level, it always is easier to set up new governmental units than to abolish old ones. A recent count indicated that the United States contained 165,049 governmental units with the power to tax. These included cities, towns, counties, improvement districts, school districts, and other local units, in addition to state governments and the Federal government.

Three basic reasons for the increasing cost of government. Three factors explain in a large measure the rising cost of government in the United States, and the same factors would apply almost anywhere else in the world. Two of them are war and the growing tendency of people to demand more services from government. Another factor which has

increased the money cost of government is the rise in the price level since the late 1930's. However, the rise in prices has also increased tax receipts, and has given government more money to spend.

Government expenditures growing out of war. Wars have been growing more costly. The First World War cost the United States in direct outlay about $35 billion. The Second World War cost about $350 billion. Neither war could be paid for out of current tax collections, and the Federal government went heavily into debt in each war period.

As every American has found out, the aftermath of war requires many costly expenditures by the Federal Treasury. After the Second World War, for example, $5.4 billion was needed annually to pay interest on the Federal debt. Further, the troubled international situation forced the maintenance of a substantial military establishment. Payments to veterans and for foreign aid also were large. In the budget for the 1950 fiscal year, just four items, national defense, interest on the public debt, veteran expenditures, and foreign aid, added up to about $32 billion, or 78 per cent of the total Federal outlay of $42 billion. These were all related to past wars or preparation for war. The costs of a war linger on for many generations. We are still paying for the Civil War and the Spanish-American War. For example, approximately $175 million has been allocated in recent fiscal years for pensions and dependency payments to Spanish-American War veterans and their relatives.

Table 24 shows that nearly all items of Federal expenditure have joined in the rising trend of the past decade. It will be seen that past and future wars, and the prevention of war, have contributed most. The table is worthy of careful study in view of the persistent debate over where, if at all, government outlays can be reduced.

The aftermath of the Second World War proved to be more costly than had been foreseen because of the great devastation in Europe and Asia. During earlier wars, farms and factories of the warring nations for the most part escaped undamaged except when they were in the direct battle zone. It was the usual practice to do as little damage as possible to noncombatants. There have been examples in past wars where officers of opposing armies met before a battle and selected a battleground where growing crops would not be harmed. But nothing of this sort occurred in the Second World War. The productive capacity of a combatant was regarded as a major part of his military establishment.

Table 24. U.S. Budget Expenditures by Major Groups

(*In millions of dollars*)

	1939	*1948*	*1949* †	*1950* †
National defense	$1,074	$10,924	$11,745	$14,268
Veterans' services, benefits	559	6,567	6,799	5,496
Interest on public debt	941	5,188	5,325	5,450
International affairs	19	4,782	7,219	6,709
Social welfare	3,996	1,853	1,962	2,358
Transportation, communication	512	1,267	1,757	1,586
General government	556	1,304	1,187	1,224
Agriculture	1,198	575	1,805	1,662
Natural resources	214	1,091	1,616	1,861
Housing facilities *	154	82	349	388
Finance, commerce, industry	52	88	102	107
Labor	11	183	184	187
Education and research	44	75	85	414
Reserve for contingencies			45	150
Adjustment	63	−388		
Total expenditures	$8,959	$33,791	$40,180	$41,858

Source: U.S. Treasury.

* Excess of credits. † Estimates.

As a result of bombings and other demolitions, the industrial capacity of many nations was so badly crippled that it had to be rebuilt before the population could be self-supporting.

Much of the goods required for reconstruction were obtainable only in the United States, and our government made enormous gifts and granted large loans for such purposes. It also made gifts and loans to feed millions of persons who otherwise would have perished.

Government expenditures growing out of the expansion of services. The second major factor which increases the cost of government is the additional services demanded by citizens. The expansion of services naturally has resulted in greater spending, and this spending has considerably increased the power of governmental agencies. Pensions, Federal aid to education, parks, subsidies to agriculture, school lunches, insect eradication, statistical services, flood control, advice on home can-

ning, and high-speed highways are only samples of the diverse types of spending which government is called upon to make.

The difficulty of reducing government spending. In the United States, the rise in government outlays has taken place through the democratic process. The citizens want services and enforce their demands at the ballot box. Often, however, governments have initiated expenditures for which there was no popular demand, and the citizens have been apathetic and have done nothing to discourage such outlays. The spigot of spending, once it is turned on, always proves difficult to turn off.

The indifference of our citizens to spending can be explained in large measure by the small impact of direct taxes on most of them. Although the burden of income taxes on the upper income classes is very great, most of our citizens either carry a modest burden or escape entirely. They do not, however, avoid the burden of indirect taxes which are included in the price of the commodities and services they buy. Such taxes are painless in the sense that the purchaser is not aware of the payment. Public apathy toward spending probably would not exist, however, if every citizen knew his total tax bill or if our income tax had lower exemptions and was not so steeply progressive. Few citizens realize that if the tax burden were equally distributed each family's Federal tax bill would have been around $1,200 in recent years, compared with only $130 in 1929.

It must be added, however, that even an aroused citizenry might not be able to trim government expenditures very much. As Congress has discovered, the tax-cutting process is not easy. When expenditures are cut, someone always is hurt, and the victim nearly always protests loudly. Skilled publicists are employed by pressure groups to retain appropriations which face reduction. In some instances powerful cases can be made for continued spending. In 1947, businessmen complained about proposed cuts in statistical services which would have resulted from a reduced budget for the Bureau of Labor Statistics. A conference of far-western governors, and strong representations to Washington, followed cuts in outlays for reclamation services. The governor of California branded as "false economy" the slash in customs guards in San Francisco harbor. Even exponents of cheaper government dread the pruning knife unless it is used on the other fellow.

Several studies of Federal government functions have been initiated in recent years in an attempt to simplify the structure of the govern-

ment and eliminate unnecessary functions. The most important of such studies was initiated by Act of Congress in 1947, and was made under the direction of former President Hoover. The report of the Hoover Commission indicated that as much as $3 billion a year might be saved without impairing efficiency.

How should governments raise money? Since it appears that large sums must be spent by governments, it becomes extremely important how the money is raised. Although the Federal budget may make dull reading for a lazy summer afternoon, it is a document which affects in a very real way the well-being of everyone. The late Harold Smith, former Director of the Budget, was correct when he described the United States budget as "the most important single document relating to the social and economic affairs of the people." It is, however, an extremely long and complex document.

Any government has only three ways of raising funds. Taxation is the most important, and the only sane method over a long period of time. Borrowing is another way. A third method, not so important for most units of government, is the selling of services or even commodities. Some governments receive income in the form of grants from other units. This, however, represents a shifting of funds from one body to another rather than a different method of raising funds.

Most of our attention will be devoted to taxing and borrowing. During a major emergency such as a war or a depression, a government often has no alternative but to borrow. The government expects to repay the borrowed funds when conditions become normal. However, debts contracted in wars rarely are completely paid off. Each individual lender gets his money, of course, but funds for debt repayment usually are obtained by additional borrowing. A better record has been made by the United States than by most nations. However, the extinguishing of our $257 billion debt, mostly the heritage of the Second World War, may be another matter.

How much money the government spends, how much it raises by taxes, and how much it borrows are of great consequence to our whole economy. We have noted that government policies in taxing, borrowing, and spending have important repercussions on the general level of business activity. By increasing taxes the government can take spending power from the public and exert some restraint on speculation and inflation. By lowering taxes the government can increase public pur-

chasing power and perhaps retard the rate of contraction in a period of recession. The government can also affect business activity by increasing or decreasing its own spending.

As was observed earlier, to be most effective in stimulating business, funds spent by the government should be borrowed by selling government securities to the commercial banks. Since funds obtained in this way are newly created by the banking system, their acquisition by the government in no way reduces the purchasing power of the public. When, on the other hand, the government increases its power to spend by raising taxes, the increase in government outlays may be offset by a decrease of spending by people who pay the taxes.

Since Federal budgets now are running between $40 and $45 billion, the way the government gets the money is much more important than it was in the 1920's. Then spending was only $5 to $8 billion a year. Although our state and local governments sometimes operate in the red, the economic effects of deficit financing are of greatest consequence at the Federal level.

The Collection of Taxes

The nature of a tax. In beginning the study of government finance, students will do well to bear in mind the nature of a tax. We can define a tax as a compulsory payment made to government without any direct service rendered by government in return. When a person makes a purchase, he gets something concrete and definite in return for his money, but he cannot relate the value of the services he gets from government to the amount of his tax payment. For example, the property owner receives police and fire protection. He pays taxes to support the police and fire departments. He may or may not, however, require their services in any particular year.

In contrast to a tax, fees often are charged by government in payment for specific services. For example, a street is paved and property owners along the street are assessed to defray the cost. Perhaps certain inspection services are provided for which a fee is charged. At any rate, the taxpayer knows there is a direct relationship between what he pays and what he gets in return.

Why are taxes collected? It seems almost naïve to ask such a question, because we know that taxes provide the necessary revenue for

governments. However, taxes may be levied for other objectives than revenue. The various purposes of taxation are briefly outlined below.

1. Revenue.

2. Attainment of social objectives.

a. To influence the distribution of wealth and income. Highly progressive income taxes tend to level incomes; highly progressive death taxes tend to redistribute wealth.

b. To subsidize or penalize particular industries regarded as desirable or undesirable.

3. Attainment of a high level of incomes and employment; in other words, to counteract the effects of the business cycle.

a. During a boom, when inflation is threatened, spending power can be removed from the economy through taxation. Investment can be retarded through high taxes on the upper income groups who do nearly all the saving and investing. Even the level of consumption could be cut back, if that were desirable, by raising taxes on the lower income groups who, in the aggregate, spend the most for consumption.

b. When deflation is threatened, taxes can be reduced.

For all practical purposes the Federal government is the only layer of government able to use taxes for any purpose other than revenue. Local governments, of course, sometimes try to attract industries by granting tax exemptions.

Regressive, proportional, and progressive taxation. A tax is regressive if the rate decreases as the base, or thing taxed, increases. A tax system is regressive if it takes a larger percentage of income from low-income groups than from high-income groups. No government would dare at this time to levy a tax with rates obviously set on a regressive basis, although some taxes and tax systems may work out that way in actual practice. As a matter of fact, evidence presented before the Temporary National Economic Committee in the late 1930's indicated that persons of very low income in the United States paid a higher percentage of their incomes in taxes than those in the middle-bracket groups, although persons of large incomes paid the highest percentage of all. Various studies have indicated that the British tax system has at times been regressive over certain income ranges. A tax system will tend to be regressive if a large portion of revenues are obtained from consumption taxes and from property rates.

A tax is progressive if the rate rises as the base increases. A tax system

is progressive if the wealthy or well-to-do pay a higher percentage of income in taxes than those with small incomes. Most modern income taxes are steeply progressive. When wartime personal income taxes were at their peak, those in the top bracket paid a 91 per cent rate on any increase of income, while people with very low incomes paid nothing. As a rule inheritance and estate taxes are also progressive.

A tax is proportional if the rate remains the same regardless of changes in the base. Most property taxes are proportional. A person with a large amount of property pays a greater number of dollars in tax than a small property holder, but each pays the same percentage. If the rate, for example, were 5 per cent, an individual with $1,000 of property would pay $50 whereas the owner of $100,000 worth would pay $5,000.

Requirements of a good tax system. In general, a good tax system should not be regressive. It therefore would include income, death, and gift taxes to a degree sufficient to overcome the regressiveness of whatever consumption taxes might be levied. On the other hand, the progressive taxes, particularly those on incomes, should not reach such high rates in the upper brackets that incentives are impaired or the accumulation of investment funds is made impossible.

The kind of tax system we have is of major importance when very large sums are received by government. A bad tax system can be oppressive, unfair, and detrimental to incentives. An efficient, well-designed tax system can collect more revenue with fewer harmful effects than a poorly designed one. That has been demonstrated many times over. Even small sums, collected in a manner which is regarded as unfair by taxpayers, can create both political and social unrest. History is full of examples of nations which have suffered from oppressive taxation. Let us consider a few essential characteristics of a well-conceived tax system.

1. A well-conceived tax system provides both enough revenue and dependable revenue. When this test is met in normal times, the government does not have to depend on borrowing. There are emergencies, of course, when no revenue system can supply the funds the government must have. Moreover, some taxes are more dependable than others, and a good revenue system will include both stable revenue producers and taxes whose returns vary during the business cycle.

A very different criterion for a well-designed tax system has been formulated in recent years. It requires that government tax collections should deliberately be curtailed during a depression, and that the gov-

ernment should pump spending power into the income stream by using borrowed funds. Contrariwise, it requires that the government should prevent an all-out boom from running to extremes by collecting more in taxes than it spends during the later stages of the boom. In other words, according to this theory correct policy is to run up a deficit during a recession and accumulate a surplus in boom years. With such an objective in mind, a well-conceived tax system might depend entirely on income taxes. Income tax collections naturally rise during prosperity and decline during a recession. By changing exemptions and rates, collections can be increased or decreased quickly.

2. A well-designed tax system will contain reservoirs of unused taxing power. Included in the system will be taxes which can produce the increased revenue if the need arises. During peacetime, for example, the income tax will not be as high as it conceivably could be pushed, since here is a tax which can quickly be made to produce more revenue in a national emergency, either by raising rates or lowering exemptions.

3. A well-conceived tax system should be easy to understand and inexpensive to administer. In other words, a taxpayer should be able to understand why he is called upon for certain payments. Those who have struggled with income tax forms or the language of the internal revenue code may doubt that this criterion has been met in regard to our Federal income taxes. However, it is almost impossible for a revenue system, such as that of the United States, to remain simple for everyone in view of the huge sums which must be collected. Nevertheless, the problem of interpreting the revenue laws appears to have been unduly heavy for the businessman.

Most taxes, Federal, state, and local, are inexpensive to administer as far as direct outlays by the tax-collection agencies are concerned. This is not always true, however, if the compliance cost to the taxpayer is included. Under present conditions most American businesses of importance must maintain staffs of tax experts in order to comply with the law. Moreover, the cost of litigation has added to the expense of taxpayer compliance. It must be remembered, however, that the whole role of government in economic life has been expanded greatly in about a decade. It is to be hoped that the yardsticks of simplicity and economy will give a more favorable reading as time passes.

4. A fourth characteristic of a well-conceived tax system is that it should be fair. Agreement on a definition of fairness may not, of course,

be easy to achieve. For some, a fair tax system would be based on, or at least related to, the benefits the taxpayer receives from government. Others may regard a tax system as fair only when it is based on the ability to pay. Even in regard to this latter definition, there may be differences of opinion. Some might regard fairness as achieved if taxes are proportional. Others would maintain that fairness can be achieved only through progressive taxation since, they argue, the ability to pay taxes increases at a faster rate than income.

5. A well-conceived tax system must not impair incentives. When large sums must be raised from income taxes, the rate of progression becomes extremely important. It is conceivable that rates on larger incomes may become so high that capable individuals will not consider it worth while to expend the effort or take the risks which are often required to earn large incomes. When such a state of affairs exists, everyone in the community suffers.

While the principle of progressive taxation has been accepted in most advanced nations, concern has been expressed in the United States and elsewhere in regard to the effect of current high rates. Certainly, a well-conceived tax system should stimulate, rather than retard, economic activity. Under the free-enterprise system, the reactions of individuals to tax rates is of far more consequence than in a nation where the major proportion of economic life is directly under government control.

On the other hand, some careful students maintain that most kinds of economic activity are so much of a game that individuals will continue to expend effort even if the pecuniary incentive is in a large measure taxed away. This may be true in certain professions. A research chemist or physicist might expend maximum effort on his studies regardless of tax rates, as long as he and his family were adequately clothed and fed. It is improbable, however, that this would apply to most individuals who, under a free-enterprise system, initiate new enterprises. A businessman is reluctant to start a new activity if the profits are to a large degree taxed away, although he might continue to operate a going concern. The question of incentives has been getting much deserved study both within and outside of the government.

The capacity to pay taxes. The tax-paying capacity of any nation is determined by the kinds of taxes assessed and by the attitudes of taxpayers toward the government, as well as by the incomes of the taxpayers. We have already indicated that much more can be taken from

the pockets of the taxpayers without complaint if the system is regarded as just than if it is held to be unfair. A badly designed tax system may cut too heavily into the power of some groups to consume, while taking a relatively small proportion of income from others. This not only may reduce total tax revenues; it may also work a great hardship on those taxed too heavily.

As an example, a tax system constructed almost entirely around excises on mass consumption items would be regressive. It would take a larger proportion of incomes from low-income groups than from the well-to-do. Such a system would reduce consumption because the low-income groups include the masses of the people. At the opposite end of the scale, a system based entirely on highly progressive personal and corporate income taxes might take such a large proportion of the incomes of energetic and successful citizens that the principal source of investment funds would be destroyed. Either alternative would be detrimental to economic progress. Obviously, the question of how much can be collected in taxes without causing the economic machine to slow down must be carefully weighed.

During a major war individuals gladly will pay far more in taxes than they would in ordinary times. This was demonstrated during the Second World War when civilians willingly accepted sharp increases in income taxes. In fact, many students of finance contended that the people were willing to pay even higher taxes than Congress imposed.

An important point regarding tax-paying capacity often is overlooked. When increased revenues are required by government, the suggestion often is made that higher taxes should be imposed on the middle and upper revenue groups. In fact, "Soak the rich!" has long been the battle cry of those who wanted to increase government income without arousing the opposition of the masses who possess the most voting power. However, there is a very definite limit to the tax-paying capacity of those with large incomes.

How do you define a middle- or upper-bracket income? President Truman suggested that an income of $6,000 a year be marked the beginning of the middle-income group. However, only 5 per cent of all taxpayers earned incomes of even $5,000 a year or more at the time the President offered this suggestion. It is still more difficult to determine just where the upper income group begins. For example, only 1.79 per cent of all taxpayers had incomes of $10,000 a year or more.

The core of the matter is that the incomes of the masses will have to be taxed heavily if the revenue demands of government continue to climb. Persons with very large incomes may become as extinct as a prehistoric animal if the trends of recent decades continue. Take the fabulously large incomes which make the newspaper headlines. In 1929, there were 513 persons in the United States with incomes of $1,000,000 or more. In 1948, when national income was three times the 1929 level, there were only about 100 incomes of $1,000,000 or more.

Table 25 shows vividly where the tax-paying capacity of the United States is to be found.

Table 25. Tax-paying Capacity and Income Tax Burdens in the United States in 1948

Net income group	*Number of taxpayers*	*Total net taxable income*	*Total income tax*
Below $5,000	44,734,300	$109,895,900,000	$ 8,664,200,000
$ 5,000–$ 10,000	1,572,300	9,714,900,000	1,362,900,000
10,000– 25,000	668,800	9,508,000,000	2,196,900,000
25,000– 50,000	128,200	5,003,500,000	1,905,900,000
50,000– 100,000	36,100	2,508,700,000	1,298,000,000
100,000– 300,000	8,000	1,358,300,000	940,500,000
300,000– 500,000	800	221,800,000	189,300,000
500,000– 1,000,000	400	207,900,000	177,000,000
$1,000,000 and over	100	172,100,000	149,000,000
Total	47,169,600	$138,591,100,000	$16,884,300,000

Source: Compiled from U.S. Treasury data.

There are not enough dollars earned in the definitely large-income groups to defray the cost of government in the United States. If all the net incomes of $10,000 a year or more in 1948 were taken in taxes, the total amount would not have met the cost of running our Federal government for six months. Already the burden is heavy on those with the upper incomes. As the table indicates, those with net taxable incomes of $5,000 or more paid about half of all income taxes. In numbers, they were only one twentieth of the total number of taxpayers. The 1.79 per

cent of taxpayers with net taxable incomes of $10,000 or more paid 42 per cent of total income taxes.

Before going further, let us summarize some of the factors which determine the tax-paying capacity of a nation:

1. How the Government Gets Its Revenues. The kind of tax system that is employed is of major importance, as already implied, in determining the amount which can be collected in taxes.

2. What the Government Does with the Money. If government spending policies stimulate productivity, and result in quick return to the income stream of money collected in taxes, the tax-paying capacity will be higher than if the money is wasted or impounded. As is indicated at several points in this volume, it may be desirable at the boom stage of the business cycle to collect more in taxes than is paid out. Under more normal conditions, however, withdrawals by government from the income stream without a corresponding repayment will reduce the tax-paying ability of the people.

3. Degree of Approval by Citizens of Government Policies. A government which has the approval of the taxpayers will be able to collect more than would otherwise be the case. On the other hand, a sharp difference of viewpoint between government and important groups of its citizens will create an atmosphere of uncertainty and confusion. Such an atmosphere is not conducive to a high level of income and a corresponding high tax-paying capacity.

Shifting and incidence of taxation. The tax-paying capacity of a nation depends in an important measure on the final resting place of the tax burden. The person or business upon which a tax is levied may not be the bearer of the final burden. The person or business upon which it is levied may shift the tax, in other words, pass it on to someone else. The incidence of a tax is its final resting place. For example, a manufacturer upon whom an excise tax is levied may pass it on in the form of a higher price to the wholesaler, who passes it on to the retailer, who in turn passes it on to his customer. Although the tax was levied on the manufacturer, it was shifted to the final purchaser. That was its incidence. Thus the student will see that a very important question is, "Who pays?" In appraising the merits of a tax system, the incidence of particular taxes must be given special attention. Otherwise the real burden on certain groups may be underestimated.

Another important point must be kept in mind in regard to shifting and incidence. Whether a tax system as a whole is regressive or progressive will depend upon the shiftability of various taxes. Personal income taxes, which usually are progressive, are difficult to shift, unless in periods of high employment the employee can shift part of the burden of his income taxes to the employer in the form of higher wages. There is some doubt whether this happens, but, if it does, the employer will try to shift the burden to consumers in the form of high prices. While income taxes are difficult to shift, taxes on commodities must usually be borne, in part at least, by the buyer of the article which is taxed. However, ability to shift excise taxes depends in large measure on the elasticity of demand for the product being taxed.

The Federal Budget

We have indicated that the budget of the United States government is the most important book published each year. This is true for Americans because the nature of the budget so greatly influences the economic well-being of all our people. It also is true for many millions of people who live in other countries, because of their dependence upon American aid.

Our Federal budget system was established by the Budget and Accounting Act of 1921. A Bureau of the Budget, now a part of the Executive Office of the President, prepares the budget. Under the Budget Act, the contents of the document must cover the following information:

1. Estimates by the President of the expenditures and appropriations necessary for the coming year.
2. Estimates of receipts expected during the coming year from existing revenue laws and from any additional revenue measures which the President may propose in the budget.
3. Expenditures and receipts of the last completed fiscal year, and estimates for the year in progress.
4. Amounts of past appropriations available for spending in the current fiscal year. This must include appropriations in the current fiscal period and those unused in past years.
5. Statements of the actual or estimated condition of the Treasury at the end of the last completed fiscal year, in the current year, and in the ensuing one.
6. Pertinent data regarding government debt.

7. The President's proposals regarding the covering of a deficit or the disposition of a surplus.

The fiscal year of the Federal government begins on July 1 and ends the following June 30. Every January the President of the United States presents to Congress his proposed budget for the fiscal year beginning the next July 1. Since it is an estimate which is made in advance, it often misses the actual results attained in any fiscal year. Changes in tax rates, a shift in income levels, and new spending, to name only three reasons, may explain differences between actual and budgeted expenditures and receipts.

A quick picture of the finances of the Federal government can be obtained from Table 26, which is a summary of the Federal receipts and expenditures in recent fiscal years, compared with a prewar year. Income taxes, lumped together in the table, include both personal and corporate taxes. A more complete tabulation of the sources of Federal revenues would include such items as estate and gift taxes, excise taxes on a wide list of products, of which liquor and tobacco are the largest individual items, and many other diversified sources of revenue.

An interesting fact about Table 26 is the growing importance of income tax collections. In this regard, let us compare the percentages of revenue obtained from various sources in 1940, 1947, and 1949. This is done in Table 27 on page 225.[1]

It is clear that the importance of income taxes has increased rapidly in recent years. However, Table 27 indicates a downward trend in other major tax items. Excise taxes and customs duties have been declining in importance as sources of revenue for a long time. Before the First World War they together contributed more than 85 per cent of total Federal tax revenues. Of the two, excise taxes alone contributed around 40 per cent. Even in the late 1930's, excises and customs duties provided almost a third of total receipts. In our present budgets, they yield only about 15 per cent. The income tax, which was instituted in 1913 after an earlier attempt at bringing income taxation into the Federal revenue system had failed, did not blossom into importance until the First World War, when rates were boosted to high levels to help pay for that conflict. Sharp rate reductions occurred in the 1920's, but rates again were increased under the New Deal and during the Second World War.

[1] Prepared from data in Table 26.

Table 26. Federal Budget Summary

(*In millions of dollars*)

	1939	*1945*	*1946*	*1947*	*1948*	*1949*
Receipts:						
Income and profit taxes..	$2,215	$35,173	$30,885	$29,307	$32,070	$31,030
Employment taxes.....	833	1,789	1,714	2,038	2,396	2,610
Miscellaneous internal revenue.....	2,345	6,949	7,725	8,049	7,402	7,715
Customs.....	349	355	435	494	422	407
Surplus property.....		101	501	2,886		
Other receipts.....	273	3,382	2,979	1,929	3,809	2,276
Total receipts.....	$5,925	$47,740	$44,239	$44,703	$44,099	$44,044
Less appropriation to federal old-age trust funds.....	538	1,283	1,201	1,144	1,616	1,754
Net receipts.....	$5,387	$46,457	$43,038	$43,259	$44,483	$42,290
Expenditures:						
War and defense.....	$1,657	$ 90,501	$48,870	$17,280	$10,924	$11,745
Veterans administration.	557	2,051	4,253	7,259	6,567	6,799
International finance....			833	3,801	4,782	7,219
Interest on debt.....	1,041	3,617	4,722	4,958	5,188	5,325
Refunds of taxes and duties.....	89	1,707	3,027	3,050	2,273	2,709
Other *.....	5,953	2,251	2,009	6,157	6,239	9,102
Total expenditures....	$9,297	$100,397	$63,714	$42,505	$36,063	$42,899

Source: U.S. Treasury.

* Includes transfers to trust accounts, net expenditures of government corporations, and other general and special account expenditures not elsewhere classified.

Excise taxes, which are included in the price of a good when purchased by the consumer, amount to substantial sums. In 1946, for example, excise taxes yielded $7,266,000,000 of which $2,691,000,000 came from liquor, $1,218,000,000 from tobacco, and $3,357,000,000 from miscellaneous sources. In addition, state and local governments collect substantial amounts in excises, including taxes on liquor and tobacco.

Table 27. Percentage of Government Revenue from Various Sources, Prewar and Postwar

	1940	*1947*	*1949*
Income and profits taxes	35.8	56.5	70.2
Employment taxes	14.1	4.6	5.4
Miscellaneous internal revenue	39.6	18.0	17.7
Customs	5.9	1.1	0.9
Surplus property	0.0	6.5	0.0
Other	4.6	4.3	5.8

The growing emphasis on income taxes in the Federal financial structure means, of course, that revenues will be large in periods of prosperity but will fall off sharply in depressions. Thus, the government will be forced to borrow during a depression, not only to maintain its ordinary expenses, but also to carry the additional load of relief and rehabilitation which depression brings. During periods of prosperity, a surplus should be accumulated. That happened in the 1948 fiscal year.

Cash receipts and payments to the public. From the standpoint of the influence on the level of incomes, the actual cash receipts and expenditures of the Federal government are more important at any particular time than the expenditure and receipt items in the budget. Our regular budget sets up a list of anticipated government expenses and income during the fiscal year. The cash transactions, on the other hand, measure the actual receipts and expenditures of cash by the Treasury. These actual cash receipts and expenditures often vary considerably from the amounts indicated in the budget. Table 28 shows the difference in the two fiscal years, 1948 and 1949.

Why do such differences occur? There are many possible explanations. On the receipt side, for example, receipts of the Federal Old Age and Survivors Trust Fund and other trust funds are cash receipts but are not counted as net budget receipts. On the expenditure side, funds provided for in one year's budget are not always spent in that fiscal year. They are budget expenditures in one year and cash disbursements in another. As an example, the redemption of armed forces leave bonds was counted as a cash payment to the public in fiscal 1948, whereas the

Table 28. A Comparison of Cash Receipts and Disbursements with the Budget, 1948 and 1949

(*In billions of dollars*)

	1948	*1949*
Budget receipts	$44.5	$40.7
Cash receipts	47.7	44.1
Budget expenditures	36.1	42.2
Cash disbursements	38.7	42.7
Budget surplus	8.4	−1.5
Cash surplus	9.0	1.4

Source: *Survey of Current Business*, October, 1948, p. 9 (1949 in part estimated).

original issuance of these bonds was counted as a budget expenditure in fiscal 1947.

An excess of cash receipts over cash disbursements is a brake on inflation. An excess of disbursements over receipts is a brake on deflation. During the early postwar years, the excess of cash receipts may have kept inflation from becoming more rampant than it did. Federal receipts exceeded cash payments by $6 billion in the calendar year 1947. The excess ran at an annual rate of $12.5 billion, after adjustment for seasonal factors, in the first half of 1948 but only at a rate of $4 billion the second half. As Table 28 indicates, the cash surplus for the full year was $9.0 billion.

Financing state governments. Tax collections by the forty-eight state governments in the 1948 fiscal year amounted to $8 billion, up more than a third from the last prewar year. During recent decades an important shift in the source of state revenue has taken place. States have come to depend less and less on property taxes, leaving the income therefrom to local governments. They depend more and more on newer sources of revenue. Many state governments no longer levy taxes against property. Only 4 per cent of total state revenues were obtained from property taxes during the 1948 fiscal year. More and more states have adopted sales taxes or income taxes. Important yields have also been obtained from tobacco and alcoholic beverages. Inheritances are another source of revenue. Public utilities often are taxed by states as well as by local

governments. Gasoline taxes are collected by all states. Another source of income is grants made by the Federal government for specific purposes.

Financing local governments. We use the term local governments to cover towns, cities, counties, and the many specialized government agencies, such as irrigation districts, school districts, sewage-disposal districts, and park districts. As of a recent date, there were in the United States more than 3,000 counties, 16,262 unincorporated places, 18,998 townships, 118,308 school districts, and 8,382 other units having their own governing bodies and their own power to tax. Most of our attention will be given to municipal governments, which include the cities and towns of the nation.

The revenue problems of our cities have been given much attention since the end of the Second World War, because of the financial crises which many of them have faced. Rising costs have pinched the finances of municipalities. Policemen, firemen, and other city employees have demanded higher wages. The rising price level has required additional outlays for all kinds of supplies and equipment. During the war, public works of all kinds were neglected because of man-power and materials shortages. Since V-J Day, some of these delayed improvements have of necessity been undertaken. Streets have been repaired, water supplies have been augmented, sewage-disposal systems have been improved, and playgrounds have been renovated. All this has taken place at high prices for labor and materials.

An estimate of municipal construction needs, made nearly two years after the end of the Second World War, placed requirements at approximately $20 billion. Of this amount, approximately $7 billion was for sewers and sanitary work and $2 billion for school buildings. Other items included new streets, municipal buildings, recreational facilities, and fire-fighting equipment.

The financial problem of the cities has been aggravated by the decentralization of population which has been going on for some years. More and more persons have been moving into suburban areas, where individual homes instead of apartments can be obtained, and where taxes are lower. Suburbanites contribute little to the support of cities, but they earn their living there and they use city streets and other facilities. This move to the suburbs has forced the construction of expensive arterial highways.

Sources of local-government revenues. Sources of revenue for local governments can be classified into five groups: (1) taxes, (2) loans, (3) aid received from other governments, (4) charges for services, (5) miscellaneous revenues.

The bulwark of income for local governments is the property tax. The property tax has been providing around 70 per cent of the total income of local governments and about 85 per cent of all tax income. The percentage provided by the property tax rises even higher in individual cases, because some local governments obtain virtually all their income from it.

In an effort to increase revenue from the property tax, valuations and assessments have been pushed steadily upward. As an example, between 1941 and 1946, the assessments in 249 United States cities were boosted by 10½ per cent. The problem of raising revenue from the property tax is aggravated by the fact that about $20 billion worth of property inside cities is tax exempt for one reason or another. New York City alone recently had $5.5 billion worth of tax-exempt property in the form of schools, churches, and government real estate.

License fees and permits are an important source of income for many municipalities. Sales taxes have been tried by some cities. The diversion of retail sales to nearby communities which have no sales tax has been a problem in such cases. Among the cities that have levied sales taxes are Denver, New York, New Orleans, Atlantic City, and a number of California cities. The income tax is being used in such cities as Philadelphia, St. Louis, Louisville, and Toledo, to name a few. Baltimore, Denver, St. Louis, Kansas City, and Birmingham, among others, have cigarette taxes. Gross-receipts taxes are used by some municipalities. A number of cities, including Salt Lake City, have franchise taxes.

Grants from other governmental units, or shared taxes, have become sources of revenue for many hard-pressed local units. New York and several other states have systems by which some of the revenues obtained from certain taxes are shared with the cities. Grants are sometimes made by states for the upkeep of arterial streets along which state highways pass. Other grants are received for educational and public-welfare purposes.

Special charges and miscellaneous sources of municipal income cover a wide range of items. Among the special charges often made are fees for recording documents and for inspection services. Miscellaneous

sources of income include revenues from municipal enterprises, such as golf courses, and from parking meters.

Another point needs to be remembered in studying the problem of municipal finance. Local governments usually are controlled as to their taxing and borrowing powers by the states in which they are located. Limits are placed on the amount and kind of taxes they can collect, and the amounts they can borrow. Recently, many municipalities have entered pleas with state legislatures for expansion of borrowing and taxing powers.

During the war years, when materials and labor were scarce, the total bonded debt of cities over 25,000 was reduced from $7,795,000,000 to $7,492,000,000. Now, however, it is rising again.

An Over-all Look at Our Revenue System

With tax collections of all units of government, including Federal, state, and local, passing the $60 billion mark, the importance of a sound, well-coordinated tax system is apparent. The tax income of the Federal government, which is budgeted to collect nearly $42 billion in 1950, has grown in relation to that of state and local governments. The latter will collect considerably less than half as much as the Federal government. As matters now stand, however, the same sources of revenue often are tapped by several layers of government. In 1946, for example, personal income taxes yielded about $18 billion to the Federal government. During the same period, state and local income taxes yielded $407 million more. Property taxes are reserved almost exclusively for state and local governments, but many commodities are taxed by these units and by the national government as well. Liquor and tobacco, for example, often are taxed by all three layers of government.

Suggested reforms for our tax system. Many proposals have been made for allocation of certain kinds of taxes to specific layers of government. For example, it has been suggested that the income tax be reserved for the Federal government. Such proposals also include reserving certain other taxes, such as the sales tax, for the states, and other taxes, such as the property tax, for the exclusive use of local governments. Motor-vehicle taxes would be the prerogative of the states, as would certain excise taxes, whereas other excises would be reserved for the Federal government. Programs of this sort usually include some pro-

vision for tax sharing, whereby states would distribute a portion of the revenue from some taxes among the local governments. The use of grants, or tax sharing, would eliminate the expense, it is maintained, of supporting assessment and collection agencies in all layers of local government. The use of grants already is widespread.

Further improvement in our tax system would result from the coordination of assessment and collection practices of the various states. Many business corporations, including most railroads and air lines, operate in more than one state. The lack of uniformity in assessing their property has resulted in much controversy, and in some cases of double taxation. The air lines in particular have encountered this problem. Recently one state attempted to tax all the property of an air line, no matter where located, and was upheld by the courts. The contention was that all the property of the air line was taxable in the state in which the company was domiciled.

Coordination of spending policy. Because large sums are collected in taxes and spent by various layers of government, there is likely to be a lack of coordination in spending policies during a boom or depression. Every layer of government, of course, has almost free action in spending money it has collected, except in so far as municipal governments are restricted by state law.

If there was a way to coordinate the spending policies of all layers of government, an important tool for combating fluctuations of the business cycle would be at hand. For example, all three layers of government spend large sums for public works. If all three would curtail such expenditures during a boom and expand them during a depression, the bad effects of the business cycle would probably be mitigated. In the past, however, the tendency has been for state and local governments to curtail such expenditures during depressions, and push them aggressively during booms. Efforts of the Federal government to expand public works during the great depression were offset in part by exactly the opposite policy on the part of other layers of government.

The fact that the total collections and expenditures of all layers of government have increased so rapidly makes coordination of taxing and spending policies of increasing importance. A thorough overhaul of taxing and spending policies at all three governmental levels would help the taxpayer to carry his increasing burden.

A number of reforms have been urged for our tax system. As enumer-

ated here, these reforms mostly apply to the Federal tax system. We already have suggested the coordination needed in our Federal, state, and local tax systems, to eliminate the multiple taxation of business concerns operating over a wide area. Among other improvements urged for the system are:

1. Eliminate double taxation of corporate dividends. Income of corporations now is taxed as earned. When the corporations pay dividends to individuals, the income is taxed again as their personal income.

2. Increase reliance of the Federal government on personal income taxation, and reduce or eliminate entirely corporate income taxes, as budget requirements permit.

3. Remove tax exemptions from all future issues of state and local government bonds.

4. Allow individuals to average their incomes over a period of years for tax purposes. It is argued that an averaging procedure would be fairer to persons in the professional and entrepreneural groups whose incomes fluctuate over wide ranges. Some individuals receive in one year what is really payment for several years' work, and in this year of high income they bear the full effect of the steeply progressive income tax.

5. Confine Federal excises to liquor and tobacco.

6. Encourage effort by taxing wages and salaries at lower rates than income from property.

Requirements of the Treasury have been so great in recent years that reforms in our tax system have of necessity been deferred because reduction in revenue would result. Recently, however, attention has again been turned to reform, and our whole fiscal system is slated for an overhauling. Keen students of public finance hope that this will not be delayed further by the increased spending required under the current military and foreign aid programs.

The problems created by high taxation and heavy government spending. Our chief concern, to this point, has been to describe our tax system and to compare it with an ideal system. We also have suggested reforms which would enable it better to meet the increased requirements of all layers of government in the United States. We shall now consider a second aspect of taxation, namely, What problems are created by our tax system as it has developed over the past few decades?

In a democratic society it is both the privilege and the duty of citi-

zens to decide for themselves the kind of government they wish. They can decree through their ballots that the government will hand out benefits and subsidies of various kinds. In this case, the government will have to tax heavily, and, as is so often demonstrated, political power usually accompanies spending power. On the other hand, the citizens can demand less spending and lower taxes, if they so desire. An understanding of government spending policies, and their effects, is therefore very much worth while.

The question sometimes is asked, Why worry about government spending? When the government pays out money, it creates income, a higher level of employment, and a higher tempo of economic activity. It sometimes is argued that the effects of government spending are multiplied several times over in creating income and stimulating a high rate of business activity, and that therefore government expenditures in large measure create the means of paying for themselves by increasing tax-paying capacity.

Government spending, made possible at first through deficit financing, may well be desirable in times of national emergency, either economic or military. However, four considerations must be kept in mind when appraising the results of a heavy spending policy.

1. Large expenditures by government make high taxes inevitable. Tax reductions, even after a war or other emergency has passed, are difficult, because of the obligations accumulated during the period of crisis. The necessity of raising very large sums makes it more difficult to avoid bad taxes. Controversial questions arise over the kind of tax system to be instituted to collect the necessary taxes. Often, also, upper income groups, who form a voting minority, may be required to bear an unreasonable burden.

2. As will be explained more fully in the next chapter, the question of debt management becomes complicated when the government resorts to heavy spending over a prolonged period. The higher the current rate of spending, the more difficult it becomes to achieve the budgetary surpluses necessary to reduce the debt when the financial emergency has passed. The debt, created during a period of heavy spending, may mean that conflicting policies will be instituted by different governmental agencies. For example, the banking authorities may become convinced that a boom has gone too far and that the brakes should be applied by allowing interest rates to rise. On the other hand, the Treasury may

quite well find such a policy objectionable because of the increased cost in interest disbursements required to carry the debt. A rise in interest rates, moreover, would result in a decline in the prices of government bonds traded on the market. This would not be regarded as desirable if the sale of more government bonds was anticipated.

3. The sheer expense of collecting and disbursing large sums of money also is often used as an argument against big government. The maintenance of the machinery for assessing taxes, collecting them, checking returns, and engaging in litigation with recalcitrants adds up to important sums. We already have mentioned the cost of compliance to the taxpayer when many forms must be prepared or when disputes arise with the tax collector.

4. The fact that control goes with spending power is a lesson that the American people have not fully learned. It is quite natural that governmental agencies, charged with the responsibility of spending large sums, will want to see that the money is wisely used. Federal subsidies to education serve as an illustration of problems which arise. The supervision of public schools seems to be very much of a local matter. School boards are zealous, as they should be, in regard to selection of personnel and curriculum. Yet many units of local government are unable for financial reasons to maintain even minimum standards. If Federal aid is given, some degree of Federal supervision, at least in outlining of minimum standards, seems inevitable. This is merely an example and it is a controversial one. Many of the questions which arise in connection with disbursement of Federal aid are controversial. We must reach a solution of this problem if we elect to have a government committed to high spending policies.

5. All taxes, even good ones, tend to repress economic activity to a greater or lesser degree when the rates become too high. This brings up again the question of incentives. We do not know as much as we should about incentives in relation to taxes, but the fact remains that taxes are considered by businessmen in appraising the desirability of engaging in new enterprises. Progressive personal taxes take away in a measure the incentive to expend the effort necessary to earn a large income. If an increment of income is taxed at a 60 per cent rate, for example, it becomes questionable whether it is worth while to go to the trouble of earning that additional income. The probable rate of return after taxes also is weighed when consideration is being given to investment. We

have seen that an economy quickly stagnates if investment falls to a low level.

It is certainly true that taxes play a major role in the decisions of American business. Tax considerations sometimes weigh heavily against taking the risks involved in the establishment of businesses which would create employment and provide worth-while products for consumers. The fact remains, however, that high taxes are necessary if the government is to spend heavily. Therefore the best the taxing authorities can do is to improve our tax system as much as possible, while at the same time resisting any unnecessary increase in taxes.

Conclusions

Let us coordinate some of the highly important facts which we have examined in this chapter. The following points stand out:

1. Government revenues and expenditures have become so large that they now exercise a major influence in our economic life. Payments by government to the private sector of our economy provide a major source of income. Withdrawals in the form of tax collections act as a brake on private spending.

2. Government expenditures at Federal, state, and local levels are in a strong uptrend. The increase in Federal spending is particularly evident. Spending and tax policies are one means of controlling the private sector of our economy. Important decisions in regard to spending and saving are taken from individuals and vested in government.

3. During business depressions large budget deficits can be expected to appear automatically because of our increasing reliance on individual and corporate income taxes. The fall of Federal revenues in depression will be intensified by the steep progression in personal income tax schedules. Not only will taxable income decline in a business slump; individuals will slide into lower tax brackets. However, it is becoming more and more accepted as a sound tenet of public finance that the treasury should encourage large deficits during depressions. But will political pressures allow the treasury to accumulate large surpluses during the boom? We shall explore this question further in the next chapter.

4. It appears that we have gone far along the road toward using fiscal tools to accomplish nonfiscal objectives. For example, the New Deal and the Fair Deal have frowned upon unequal distribution of incomes. In

consequence the progressive income tax has been used to accomplish a leveling of incomes. We are treading on dangerous ground here. Large incomes provide the savings necessary for the investment we require if our economy is to provide an increasing standard of living for our people. Moreover, we need to know much more than we do about incentives before slashing away too heavily at upper income brackets.

5. There is a time and place for everything. This is true for winter overcoats and summer bathing suits. It also is true for expansion of public spending regardless of how worth while the objectives may be. With more than 75 cents of every tax dollar going for war, the results of war, or preparation for war, is this the time to push Federal spending into new fields? In a democratic country like ours, this is an issue that must be settled by the voters.

6. A sound, well-designed tax system is essential if taxpayers are to bear the burdens which growing Federal, state, and local expenditures require. Allocation of revenue sources between layers of government must be carefully considered. The effect on incentives as well as on consumption must be weighed.

With these six points in mind, let us draw our conclusions in the form of answers to the following questions:

1. How many government services do we desire in contrast to goods and services supplied by private enterprise? Answer: Everyone will have his own opinion on this matter. Our answer is that the production of goods and services by government should be held to a minimum, and that it is dangerous for individuals and businessmen to demand more and more services, or to think first of government aid whenever trouble develops. The danger is both economic and political. The general rule is that government should be called upon to provide only those services which it is clear that private persons cannot provide profitably or efficiently, or cannot make available at all.

2. How can we best raise the large sums required by government and still maintain a flourishing private-enterprise economy? Answer: We must give deep thought to the question of incentives in determining both rates and kinds of taxes. It often has been demonstrated that tax rates can be pushed so high that collections actually fall off. While a progressive income tax is just, the degree of progression in most western democracies has become too steep. It is true that the low income groups find their consumption reduced if taxed at all, but every citizen should

both contribute to the upkeep of government and know he is doing so. As data presented in this chapter show, we must collect taxes from the lower income groups if we are to raise the vast sums our governmental units appear to require even in peacetime.

Our Federal government might attain several objectives by relying even more than it does on personal income taxes, but if such a policy is to be followed, exemptions and the degree of progression should be lowered. Elimination of "hidden" taxes would increase the capacity of those in the lower brackets to pay income taxes. If every citizen received a tax bill, he would think twice before urging more government spending. A lowering of the degree of progression in our present income tax schedules should be beneficial to incentives.

3. Should we confine our revenue-raising activities to purely fiscal objectives or should we also consider social and political objectives as well? Answer: In general, fiscal objectives should be emphasized in planning our revenue-raising activities. If any tax is set at a high level, the reason should be that the government needs the money and not that some particular type of taxpayer is socially or politically undesirable. Outright prohibitions are better for coping with undesirable practices. The tax system should be used primarily to raise money even though social and political considerations must be taken into account when it comes to determining what kind of taxes to levy and who shall pay them.

4. What sources of revenue should be allocated between the different layers of government? Answer: Our position has been rather definitely stated on this point. In general, the income tax should largely be allocated to the Federal government. Its excise levies should be confined to liquor and tobacco. Local units should continue to rely on property taxes supplemented by some of the newer sources of revenue. Other excises, including gasoline, death taxes, motor-vehicle levies, and sales taxes, should belong largely to the states. Possibly the states should pursue even further the matter of tax sharing with local governments.

5. Should government, through its vast fiscal powers, act aggressively to stabilize economic activity, or should government assume a passive role? Answer: The time probably has passed in the United States, as in most other countries, when the government could let a major business depression run its course without acting to relieve human suffering. However, our Federal government automatically makes a large contribution to the nation's income stream during a depression by spending

more than it collects in taxes. This is inevitable because of our heavy reliance on income taxes. Coordination of the cyclical taxing and spending policies of all three layers of government would increase the governmental contribution to economic stability.

Some students of public finance argue that flexible tax rates and exemptions could be used effectively to promote stability in our economy. By lowering rates and raising exemptions during a depression, the government would increase its deficit and thereby make a larger net contribution to purchasing power. In a boom period, a larger surplus could be accumulated by raising rates and lowering exemptions. It has frequently been proposed that some government agency be given the authority to alter rates and exemptions, within limits prescribed by Congress, at various stages of the business cycle. There are various objections to such a plan. One is that it would be difficult to judge when and how much to change tax rates. Another objection is that unstable tax rates would increase business risks and tend to undermine confidence in the future.

6. Should the government seek always to achieve an annual balance of its budget, or should a balance be achieved over the business cycle? Answer: Questions 5 and 6 are related. If government acts aggressively to stabilize the business cycle, it cannot hope to achieve an annual balance. In fact, it can best combat depression by incurring large deficits. It can best hold in check a major boom by accumulating large surpluses. In our present industrial society, an annual budget balance is both impractical and undesirable. We should make every effort to exercise the national discipline necessary to balance the budget over the whole cycle. If we do not, the alternative is a perpetual rise in the public debt. The implications of a steadily mounting debt will be discussed in the next chapter.

Review Questions

1. What are the principal problems involved in the financing of government?
2. Distinguish between public and private finance.
3. What has been the trend of government expenditures? How would you explain it?
4. What items in our Federal budget are related directly to wars, past or future? What proportion is this of our total expenditures?

5. Describe some of the difficulties of reducing government spending.

6. List and comment briefly upon the principal sources of Federal revenue.

7. Can you cite reasons for the assessment of taxes other than the need for revenue? If so, comment on these other reasons.

8. What are the requirements of a good tax system? What new concept of a good tax system has developed in recent years?

9. Describe in a simple way the distribution of incomes in the United States and show how this affects the problem of raising larger revenues by taxation.

10. What determines the tax-paying capacity of a nation?

11. What is meant by the shifting and incidence of taxes?

12. Distinguish between regressive, proportional, and progressive taxes.

13. What information is contained in the Federal budget? Does the budget give a complete picture of the impact of Federal receipts and expenditures on the level of incomes? Why or why not?

14. What important changes have taken place in the sources of Federal revenues?

15. What are the principal sources of revenue for state governments? For local governments?

16. Why has the financial problem of local governments become so critical in the postwar period?

17. What important improvements can you suggest for our government revenue system?

Problems

1. The contention often is made that the accumulation of large fortunes, and their transfer by inheritance, is both an economic and a social evil. It is argued that progressive income taxes should be high enough to prevent the amassing of great wealth. It also is contended that heavy death and gift taxes should be levied to prevent the transfer of those fortunes already in existence. List all the reasons you can why the accumulation and transfer of large fortunes might be socially undesirable. List also the ways in which our society might benefit if the accumulation and transfer of fortunes were permitted.

2. Do you believe that a landlord can shift real-estate taxes to his tenants? Give reasons for your answer. Would your answer be the same at all stages of the building cycle?

3. Determine the various layers and units of government supported in the area where you reside. What kinds of taxes provide the principal revenues for each? Do you believe that any governmental service could be eliminated in your community without undue hardship on the residents? Are additional services needed?

4. List all the reasons you can why individuals are willing to work hard. Which of these would be influenced, either favorably or unfavorably, by taxation?

5. A prominent economist has suggested that we drop progressive income taxes entirely and rely solely on proportional income taxes. List all the reasons you can for and against this proposal.

Suggested Readings

Buehler, Alfred G.: "Public Finance," McGraw-Hill Book Company, Inc., New York, 1948, Chap. 1.

Bye, Raymond T., and William W. Hewett: "Applied Economics," F. S. Crofts & Co., New York, 1947.

Fairchild, Fred Rogers, Edgar Stevenson Furniss, and Norman Sydney Buck: "Economics," The Macmillan Company, New York, 1948, Chaps. 24–26.

Patterson, S. Howard, and Karl W. H. Scholz: "Economic Problems of Modern Life," McGraw-Hill Book Company, Inc., New York, 1948, Chaps. 14–18.

Taylor, Philip E.: "The Economics of Public Finance," The Macmillan Company, New York, 1948, Chap. 1.

9. The Public Debt and Fiscal Policy

A course in astronomy, in which the student became familiar with the number of light-years separating the stars, might be useful preparation for a study of the public debt. Allowing for some exaggeration, the enormous debt piled up in the years of the great depression and the Second World War appears to have a parallel in size only in the enormous distances across the universe. Furthermore, the problems connected with handling this debt are also of great size. While the average citizen may like to ponder occasionally on the large number of light-years from planet to planet, contemplation of such magnitudes has little relation to his daily life. However, the Federal debt of some $250 billion concerns him in many ways in his everyday life. He recognizes some of the ways in which it affects him, but of others he is unaware.

The problem of our public debt. Our Federal debt, pyramided on the debts of state and local governments, and on that of private individuals and enterprises, raises a number of troublesome questions. We shall concentrate on the following two:

1. How can our debt best be managed so as to promote stability in our economic life?
2. Should we try to pay off the Federal debt and, if so, how?

The problem of our public debt, reduced to its simplest terms, involves the formulation of debt policy which will foster full employment and prosperity.

Description of our national debt. The public debt of the United States consists of the promises of our Treasury to pay a specified principal to security holders on certain dates. In most instances, periodic interest

payments must be made. We only include under national debt the obligations represented by securities. At any particular time the government also may owe accrued salaries and have other outstanding bills. Such items are not included in the public debt.

The actual amount of government securities outstanding is sometimes referred to as the gross debt. In contrast, the net debt is the difference between the gross debt and what funds the treasury has on hand in the general working balance and in the different sinking funds it may be accumulating for debt-retirement purposes. Unless the distinction is indicated, we usually mean the gross amount when we use the term national debt.

Public debt arises when expenditures exceed receipts and the difference is made up by borrowing from individuals, the banks, or from other lenders. Debt declines when obligations are paid off as they mature. This can be accomplished by using a Treasury surplus resulting from an excess of receipts over expenditures. In this case there is a reduction in both the gross and net debt. However, securities can be paid off with funds from the Treasury's working balance, or by using a sinking fund which has accumulated over a period of time. In this case there would be a reduction of the gross debt but not of the net debt. If maturing securities merely are converted into new ones, there is no change, in either gross or net debt.

Most Treasury issues of securities are available for purchase by the public. Some can be bought and sold in the open market. Others are not marketable. There also are special issues which are provided for purchase by various government trust funds. Special issues can go to provide deferred payments to certain classes of persons such as veterans. Interest on some issues is paid periodically. On others, such as series E bonds, interest accumulates. A series E bond, for example, purchased at $18.75, matures 10 years later at $25. The difference represents compound interest at 2.9 per cent. Other types of Treasury securities, including many short-term ones, also are sold on a discount basis.

Many types of securities are issued by the Treasury. Let us describe the principal classes.

1. Bonds. These are the long-term securities issued by the Treasury. Their maturity dates range from 6 to 50 years.

2. Notes. These are the medium-term securities of the Federal government. Their maturities range from 2 to 5 years.

3. Certificates. This type of security matures in approximately 1 year.

4. Bills. These are the shortest term securities issued by the Treasury. They mature in 91 days.

The following table gives a breakdown of the United States public debt into the various classifications first discussed:

Table 29. U.S. Public Debt by Types, June 30, 1948

(*In millions of dollars*)

	Amount	*Per cent marketable debt*	*Per cent total debt*
Bills	$ 13,757	8.6	5.5
Certificates	22,588	14.1	9.0
Notes	11,375	7.1	4.5
Bonds	112,625	70.2	44.6
Total marketable	$160,345	100.0	
Public nonmarketable	59,507	.....	23.6
Special issues	30,211	.....	12.0
Non-interest-bearing	2,229	.....	0.9
Total debt	$252,292	.....	100.0

Source: U.S. Treasury.

The different kinds of securities differ considerably in the amount of interest paid. Interest rates, of course, vary from period to period. There was a tendency for interest rates to stiffen during the early postwar period. At one period in 1948 interest rates on the various types of securities were as follows: Bonds, 2 to 2½ per cent; notes, 1 to 1½ per cent; certificates, ⅞ per cent, and bills, ⅜ per cent. Since that time rates on the shorter term issues have crept higher, but the longer terms have held within the indicated ranges. Later in this chapter we shall discuss how the rate of return on marketable securities depends on the market price after the securities have been issued by the Treasury.

Our Federal debt, past and present. Our Federal debt reached a peak of nearly $280 billion in early 1946. Shortly thereafter, a debt-reduction program was initiated by the United States Treasury, but this was pos-

sible only because the government had earlier built up a large balance for handling war expenses. When the war ended, this fund, which was larger than required for peacetime needs, could be used to reduce the debt.

The sum of $280 billion reached by the debt is hard to comprehend. Not long ago it was estimated that all the physical assets in the United States, buildings, land, railroads, cows, automobiles, washing machines, and everything else, were worth only a little more than $500 billion. When you realize that you can buy a good railroad for a billion dollars, or a skyscraper for $35 million, you comprehend that our public debt has grown to enormous proportions.

Our nation has had large debts in the past, but nothing like the current one. As is the case with our present debt, most of the debts accumulated in the past have been the result of war and its aftermath.

In 1790, Alexander Hamilton estimated our debt to be $72 million—large indeed for the struggling new nation, although hardly enough to fight one day of modern warfare. By 1812 it had been reduced to $45 million, but the War of 1812 sent it ballooning again. By 1816 it was $129 million.

Then there followed one of the most amazing experiences in the history of public debt, here or anywhere else. The debt was entirely paid off. By 1835, the United States no longer had the problem of a Federal debt; on the contrary there was a surplus in the Treasury. Since a spirit of optimism prevailed, the troublesome surplus was not kept for a rainy day. Instead it was distributed among the states.

The United States incurred a moderate debt in the Panic of 1837 and in the Mexican War. However, the next big increase in debt came during the Civil War, when the total expanded to $2.7 billion by 1865. We never entirely paid off the Civil War debt, but we kept reducing it for 28 years. In 1893, it amounted to only $839 million, or about one-third of the 1865 peak. Thereafter it increased a little, until by 1917 it was $1,282,000,000. Debt, of course, rose rapidly during World War I. It was a little under $26 billion at the peak, a sum which was regarded as being so large that it might be difficult to handle. However, the debt was reduced steadily until by 1930 it aggregated only about $16 billion.

Starting with 1931, the United States government operated in the red every year until 1947. Lower receipts and higher expenditures during the depression were responsible at first. By 1939 our debt was $48 billion.

Thereafter we started to arm for war and in 1941 entered the Second World War. It was an expensive war. It cost the United States around $370 billion, not counting the costs that cannot be measured in dollars. This outlay was more than ten times the amount spent in the First World War. Although 46 per cent of the cost of the war was paid through taxation, we had no alternative but to borrow in almost any way we could.

In summary, the record of the United States in regard to debt has been good, as compared with that of many nations. During the 157 years from 1792 through 1948, we have had 95 years of net surplus and 62 years of deficit. The burden of our debt in postwar periods has been lessened by the tremendous growth of the nation. Tax collections could be increased easily in an expanding economy, because there were more people and resources to carry the debt burden. As long as our prosperity remains great, with employment high and incomes large, a debt of $250 billion may not be burdensome. It will, however, be difficult to repay rapidly. The real test of our ability to bear the burden will come if a severe depression reduces our power to pay taxes.

The national debt and our economy. The problem created by our public debt cannot be studied in isolation from the remainder of our economy. Directly or indirectly, our debt policy affects the well-being of every American, and for that matter, the well-being of millions of persons overseas who depend on us to provide markets for their goods, or for assistance in various forms. As we embark on our study of the public debt, we must keep in mind some of the ways in which debt policy influences the economic well-being of our nation. Here are a few of the more obvious effects:

1. There is a direct, though not always precise, relationship between the public debt and the level of incomes. When the debt is rising, incomes usually are increasing, or at least they are kept higher than they otherwise would be. This is so because the government is borrowing and spending. The borrowed funds may be those of individuals who might otherwise hoard instead of spend or invest, or they may be funds created by the banking system. In either case, when the government spends borrowed funds new income is created. When the debt is being repaid incomes usually decline, or they are smaller than they otherwise would be. The tendency of incomes to decline is especially strong when the government repays debt held by the banks.

2. As indicated in the paragraph above, there is a direct relationship between the nation's money supply and the public debt. Deposit money is created when the government borrows from the banks and destroyed when debt is repaid. Borrowing is inflationary and repayment deflationary. Even when the government borrows only from individuals, the effect may be inflationary and repayment deflationary. This is because the rate of use of money may be stepped up when the government borrows and slowed down when the funds are repaid.

3. The existence of a huge public debt may create a tug of war regarding interest-rate policy. The Federal Treasury desires that interest rates be kept low. On the other hand, low interest rates discourage saving, which is essential if we are to invest in the plant and equipment required for a rising standard of living. Also, as will be explained later in this chapter, interest rates pegged at low levels deprive the banking authorities of an important tool for controlling inflation and deflation.

4. A huge public debt requires careful management by the Treasury. To determine the right time to borrow and the right time to repay becomes of major importance. The debt must be funded in such a way that burdensome maturities need not be met during periods of stringency. From this standpoint, a large amount of short-term debt can prove troublesome. The Treasury's control over the debt carries with it enormous power over the economic life of the nation, as already indicated in this chapter.

5. The sheer burden of the public debt cannot be overlooked. A public debt of $250 billion is roughly equivalent to $6,300 per family. Interest on the debt represents a larger sum than the whole Federal expenditures in any peacetime year before the early 1930's. A $250 billion debt, requiring $5.3 billion a year for interest, would represent a very severe burden were national income to fall from the high levels of the war and early postwar years.

Ownership of the public debt. The principles of sound public finance probably are best served when the national debt is owned by millions of persons representing all income groups. Owners of government securities have a stake in sound government financial policies. They have an interest in maintaining the purchasing power of the dollar. It would be most desirable if securities were held by every taxpayer, in direct ratio to his tax bill. If this were so, no redistribution of wealth would result from servicing the public debt.

Widespread ownership of the public debt also adds a measure of stability to the economy. Individuals owning government securities can dispose of them if personal emergencies arise. During periods of unemployment the cashing of bonds provides a source of funds for the purchase of goods and services. United States savings bonds are in fact very widely held. They have been sold to 75 million persons in the amount of almost $50 billion.

The sale of government bonds to banks is more inflationary than other forms of public borrowing. The money supply is increased when banks buy bonds, and pay for them by creating deposits which they credit to the United States Treasury. Most inflationary of all is the sale of government securities to the Federal Reserve banks. The Federal Reserve banks pay for their bonds by creating deposits to the credit of the Treasury. When these funds are checked out by the Treasury, and redeposited in member banks by those who receive the checks, the immediate result is an increase in the legal reserves of the banking system. The commercial banks can then increase their deposits by making new loans and investments to an amount several times as great as the increase in reserves.

Let us see how this happens. Suppose the government sells a $1,000 bond to a Federal Reserve bank. The bond is paid for by increasing the government's account in the reserve bank by $1,000. Now suppose the government writes a check for $1,000 to a contractor. When he receives the check, the contractor deposits it in the commercial bank where he keeps his account. Let us assume that his bank is a member of the Federal Reserve System, as most large banks are. The bank then collects the check by presenting it to the Federal Reserve bank. Payment of the check is simple, because both the commercial bank and the government have accounts in the Federal Reserve bank. A transfer is made from the account of the Treasury to that of the commercial bank.

As we have already seen, the legal reserves of member banks are their deposits in the Federal Reserve banks. Now that the reserves of the member bank have increased, it has the funds which permit it to increase its own deposits through the making of loans. If the required reserves are 20 per cent, the member banks as a group can increase their deposits up to $5,000 on the basis of the $1,000 in new reserves.

As Table 30 indicates, about one-third of our public debt is owned by commercial banks and the Federal Reserve banks. More than a quarter is owned by individuals. Other types of investors hold the remainder.

Table 30. Ownership of the National Debt, November, 1948

(*Per cent*)

Commercial banks	24
Federal Reserve banks	9
Individuals	27
Insurance companies	9
Mutual savings banks	5
Other corporations and associations	9
State and local governments	3
U.S. government agencies and trust funds	14

Source: *Federal Reserve Bulletin.*

Interest rates and the public debt. The tremendous United States public debt has forced the Federal government to exercise various controls over interest rates. This has complicated the tasks of the government in combating inflation. In a measure it also has robbed interest of a prime function, that of adjusting the supply of savings to the investment requirements of a progressive society. The exercise of government controls over interest rates began during the 1930's when low interest rates were regarded as desirable as a means of encouraging investments. It was necessary to continue and even increase controls when wartime borrowing reached very large proportions. Now it is very difficult to relax them.

The yield on long-term government bonds is regarded as our nearest approximation to a pure rate of interest. United States bonds can be held without fear of default at maturity. They are nearly riskless if one does not concern himself with a possible decline in the purchasing power of the dollars the government will pay at some future date. There are virtually no costs associated with the ownership of government securities. There is an excellent market for them. These factors, combined with the huge volume of the United States debt, mean that government bonds set a pattern for the entire interest-rate structure.

By influencing the price of United States securities, the government can also influence the rate of interest which they will yield if purchased in the open market. If the prices of these securities are forced up, interest rates fall. A decline in government security prices means a rise in the interest rates on them. Let us examine the relationship between the price of United States government securities and the rate of return which they yield.

Let us assume that a 30-year bond was issued at par to yield 2½ per cent interest. The investor would pay $1,000 for the bond and would be entitled to receive $25 a year interest from the United States Treasury until the bond matured, at which time the principal of $1,000 would be repaid. But suppose the investor wishes to sell his bond after holding it 10 years and gets a price of $1,030 for it. The purchaser receives only the $25 a year interest which the Treasury agreed to pay when the bond was issued. The interest income of the new purchaser obviously is less than 2½ per cent. The $25 a year income is only 2.43 per cent of his purchase price of $1,030. However, he will receive only $1,000 principal from the government when the bond is redeemed 20 years hence. Therefore he must consider $1.50 of the $25 dollars he receives each year from the government as a one-twentieth write-off of the $30 premium he paid for the bond when he purchased it for $1,030 instead of the par value of $1,000. The interest he receives on his investment is not $25 but $23.50. If he writes off one-twentieth of the premium each year, the average amount of premium outstanding for the full 20-year period will be half of the full amount, or $15. Therefore he will receive a $23.50 income on a $1,015 investment, or roughly 2.31 per cent.

The rate of return to the new purchaser would have risen above the original 2½ per cent if the bond had been bought for less than par. Suppose it was purchased for $970 and still had 15 years to run. The annual interest payment still would be $25 a year, but the bondholder would receive the full $1,000 principal upon maturity. In this case, he receives an income of $25. He has invested $970 and will receive $1,000, or an extra $30. This is equivalent to $1.50 a year income. Therefore, his actual income is $26.50, or a rate of return equivalent to approximately 2.73 per cent on the $970 purchase price.

Fluctuations in the prices of government securities are not large as a rule since interest on government securities comes close to representing a pure interest rate. Even so, the prices of long-term securities are carefully watched by both the Treasury and private investors. A steady climb in long terms indicates a downward movement of interest rates. A fall in the prices of such securities means an upward shift of interest rates. Purchase and sale of government securities by the Federal Reserve System is the accepted method of exercising control over interest rates.

Our monetary authorities, who include the makers of both Treasury and Federal Reserve policy, have had a major problem on their hands

in connection with the proper level at which to support bond prices. The level at which bond prices are "pegged" determines interest rates. Because of the huge Federal debt, the Treasury is reluctant to let interest rates advance. On the other hand, by holding interest rates at low levels it stokes the fires of inflation by increasing the attractiveness of borrowing from the banking system. Such borrowing, of course, adds to the money supply. A low interest rate discourages saving, although much saving takes place in a high-income society irrespective of the rate of interest.

Why is the Treasury so concerned over interest rates? The Treasury recently was budgeting about $5.3 billion a year for interest requirements, or slightly in excess of 2.1 per cent on our $250 billion debt. Suppose that as the debt was refunded, the average interest rate should climb to 4 per cent. What effect would this have on the cost of carrying the public debt?

During the First World War, the government paid in excess of 4 per cent at one stage of its war financing. On this basis, with our debt of $250 billion, the Treasury would be forced to pay out in excess of $10 billion a year.

The Treasury has something more at stake. The prices of government bonds now outstanding would decline as interest rates increased. No investor would suffer loss if he held his bonds to maturity, since the principal would be repaid. He would, however, lose if he were forced to sell his securities before maturity. Moreover, a decline in government bond prices due to rising interest rates may be misunderstood. Some persons may become alarmed over the solvency of the government. This fact, combined with the annoyance of investors who have seen the prices of their securities decline, may make it more difficult to borrow, as the government must do constantly to refund maturing issues.

During most of the postwar period, the Federal Reserve System pegged the price of government bonds by purchasing as many as necessary to hold the price at the desired level. This, of course, prevented an upward movement of interest rates, except to the extent that the government was willing to permit. Other bank and treasury operations aided the pegging process. However, the purchase of large amounts of securities by the reserve banks built up the reserves of the commercial banks, since the Federal Reserve System paid for bonds by crediting the reserve accounts of the member banks. This permitted the member banks to

increase their loans and deposits, thereby adding to the money supply.

The importance of flexible interest rates is explained in an earlier chapter. That discussion will not be repeated here. It should be pointed out, however, that the advantages of flexible interest rates are lost to our economy when policy requires the pegging of interest rates. As we shall explain later in this chapter, an important weapon for influencing the level of incomes and employment is lost when interest rates must be held at low levels.

Is the size of the debt important? There are some persons who profess to feel no alarm over the size of the Federal debt, and who would be willing to see it grow even larger. They say that, since the debt is internally held, we owe it to ourselves. They argue that we are merely taking money out of one pocket and putting it into another when we tax to pay interest or redeem bonds, and that what we take away from Americans as taxpayers we pay back to them as bond interest, or as the capital value of bonds at maturity. The contention is that, when the taxing and disbursing process has been completed, we are back where we started. The amount of spending power in the economy is the same.

This argument neglects the fact that we do not always—in fact, we rarely—collect taxes from individuals, banks, insurance companies and others in the same ratio that they own bonds. Thus the servicing of debt results in a redistribution of wealth. Since ownership of the debt, after war prosperity ebbs, usually gravitates away from the lower income groups, the inequality of income distribution within the nation is intensified when all are taxed to make payments to bondholders. In so far as debt is held by upper income groups, money received as interest or through bond redemption may not be spent or reinvested promptly. Thus there may be a net subtraction from the income stream.

It is also conceivable that the debt could reach a size where servicing it would require such high taxes that business incentives would be impaired. The many billions a year which the government must budget to pay interest on the debt is not alone responsible for the high taxes which prevail, but it is added every year to an already swollen Federal budget. Any money which has to be raised for debt retirement is something more to add to the load taxpayers must bear.

Advantages and disadvantages of a public debt. We already have noted certain disadvantages of a large public debt. We cited the burden which taxpayers must bear in paying interest and in providing for

retirement. The danger of increasing the unequal distribution of wealth through collecting taxes from rich and poor alike to service the debt was mentioned. It was further indicated that the full flow of income through the economy may be impeded when the well-to-do receive interest and principal on government bonds. Since these individuals usually have ample income already, much of the payments made to them by the government will be saved instead of spent for current consumption. If suitable investment outlets are difficult to find, the funds they receive from government may be held idle.

A large government debt may also hold the threat of deflation or inflation over the economy, depending upon the time and the circumstances. Debt can result in deflation when the government collects taxes from individuals to repay bonds held by commercial banks. It is deflationary because this procedure often results in reduction of the amount of deposit money. On the other hand, a debt is inflationary when it is sold to commercial banks. Even when the debt already is outstanding, inflationary pressures may be unleashed when the government must borrow from the commercial banks in order to obtain means of repaying bonds held by individuals. In either case, the fact that we have a debt, or are accumulating one, increases the responsibilities of the monetary authorities for maintaining our economy on an even keel.

Several other considerations should be mentioned. The larger the debt, the greater the inflationary threat if an unforeseen emergency arises. In the United States, as well as in most other countries, the government can no longer stand idly by and allow widespread suffering during depression. The government must borrow to provide funds to meet the emergency. An already large debt makes the meeting of such emergencies, without impairing confidence, more difficult. The same consideration applies in financing any other kind of emergency. In case of war, large sums must be borrowed. In order to have reserve borrowing power, the debt must be reduced in times when there is no emergency.

The advantages of creating a public debt are sometimes cited. It is pointed out that many useful government expenditures have been financed through borrowing, and that employment is provided during depressions. In some cases, such expenditures are productive in the sense that they provide the earnings for their own repayment. In other cases, as with money spent for education, they may raise the well-being of a whole nation to such a level that the expenditure, even if financed

by borrowed money, will be very profitable from the standpoint of increasing production. Beneficial results far in excess of cost may result from soil-conservation programs or from scientific research. The creation of dams, irrigation systems, communication systems, and other capital improvements has been made possible by borrowing, and the results have often been very worth while.

It also has been pointed out that government debt provides a safe investment for the "little fellow," who does not have the opportunity or knowledge required to invest his surplus funds in other ways. Thus thrift is encouraged, and individuals accumulate money for many good purposes.

The public debt, it can be argued, also serves a useful purpose in providing an instrument of fiscal policy, through which government, or its agencies, can exercise certain controls over the economy. Fiscal policy, as we shall note later in this chapter, means the use by government of borrowing, spending, taxing, and debt-repayment policies in such a manner as to encourage high levels of income and employment.

However, it must also be pointed out that a large debt may make more difficult the problem of the monetary authorities in trying to keep a boom in hand. When the debt is large, the Treasury naturally is interested in keeping the rate of interest as low as possible. On the other hand, the monetary authorities may feel that a rise in interest rates is desirable at a certain stage of the boom to discourage the borrowing of funds for speculative purposes. The Treasury might oppose such a move, even if it intended to do no more borrowing at the moment, because a rise in interest rates would bring a decline in the prices of government securities already outstanding. A fall in the prices of government securities is regarded as undesirable. It brings political repercussions and discourages people from lending to the government in the future.

New versus old views in regard to public debt. Despite the fact that Americans are recognizing that they will have to live with a huge Federal debt for a long time, there still is a sharp clash of views in regard to what should be our public debt policy. On the one hand, there is the view that public debts are bad and should be avoided in so far as possible. If they must be contracted during a period of emergency, they should be paid off promptly. A large public debt, it is pointed out, means larger taxes because interest payments must be met.

When the debt is big, the problem of managing the debt and refunding securities as they come due could create difficult problems for the Treasury at some stages of the business cycle.

In contrast to those who hold this point of view, there are others who believe that creation of debt may result in benefits to society far in excess of the costs involved. They point to the enormous wastage of human and material resources due to widespread unemployment during depressions. By contracting debt, government can through its spending create the incomes required to buy goods and services which could not otherwise be sold. In other words, the government, through borrowing and spending, can put idle resources to work. Advocates of the use of public debt as an instrument of government argue that the incomes created through a higher rate of employment will go far toward providing the tax revenues necessary for servicing the debt. They maintain that government spending, made possible through creation of debt, need not be at the expense of private spending, because Federal spending often results in the employment of resources that otherwise would be idle.

Interest-bearing versus non-interest-bearing debt. Another argument, somewhat related to the one just described, often emerges in a discussion of debt policy. This question sometimes is asked: Assuming that government policy during a depression calls for spending more than is collected in taxes, why is it necessary for the government to resort to the sale of bonds to acquire spending power? Why should the government not issue currency to meet its expenses during a period of deficits? Thus the expense of large interest payments could be eliminated. The argument will be clear to the student if he considers the situation when the government borrows from commercial banks. The banks pay for government bonds by creating demand deposits, a form of money. Why should the government pay interest on such bonds when it can acquire money in the form of currency which is non-interest-bearing?

If it were not for the psychological effects of large issues of currency, it would be relatively unimportant whether new money was created in the form of currency or of deposits. There is little doubt, however, that enormous disbursements of currency during a period of large deficits would create much alarm in regard to the future purchasing power of the dollar. Such fears would step up the tempo of spending and bring a sharp price rise. On the other hand, most of our citizens do not realize the significance of rising bank deposits, and their inflationary effects.

The late Henry Simons, noted University of Chicago economist, often argued that the issuance of currency would actually be less inflationary than creation of bank deposits to finance government deficits, because the issuance of currency could be understood, and an aroused citizenry would act to stop heavy government spending when the course of events was seen.

Responsible debt management. Certain well-recognized principles exist in regard to the management of a debt. In fact, we might say that there are four principles, or objectives, which must always be kept in mind by those responsible for debt management. These four principles are as follows:

1. Government securities must be made a safe and dependable investment. They must be paid promptly at maturity.

2. Avoidance of inflation or deflation must be a paramount consideration in management of the debt.

3. An effort should be made to encourage all groups in the population to hold the debt. This gives everyone a stake in the soundness of the Federal Treasury. A widely diffused debt prevents the tensions and conflicts which develop when those who hold no government securities are taxed to pay interest and principal to others who already may have large incomes. The farmer and the laborer dislike to pay taxes so that interest can be paid to the banker. The clerk may resent payroll deductions that are channeled into the pockets of his boss in the form of bond interest.

4. Debt maturities should be well distributed, and the payments coming due in any given short period of time should not be too large. The problems of debt management are complicated when a large portion of the debt consists of short-term securities. This means that the Treasury is constantly faced with a heavy stream of maturities. These can be met from the Treasury's cash balances, by exchange of securities, or by new borrowings to repay security holders who demand cash in excess of what the Treasury has on hand. The larger the total debt, the more complicated is the task of the Treasury in meeting frequent maturities.

The problem would be less severe for the Treasury if the larger portion of the debt were in long-term bonds with carefully spaced maturities. We have seen, however, that interest rates have been higher in recent years on long terms than on securities with short maturities. Emphasis on the sale of long-term bonds, therefore, would increase the cost

of carrying the debt. It could be argued that the increased interest outlay might be well worth the cost. There are other reasons, however, why the Treasury cannot concentrate entirely on long terms. Many investors desire a safe, short-term medium of investment in which to hold funds which are not needed now but which will be needed soon. Banks prefer to keep a portion of their assets in short-term governments as a safeguard against unforeseen demands or to handle peak seasonal requirements. Business concerns also keep reserves for similar reasons. Other investors may prefer medium-term securities. In short, a government which has been forced to borrow huge sums must offer the types of securities which lenders desire.

Under ordinary conditions, the problem of borrowing to meet maturities need create no major problems. As we have seen, however, there are periods when sound fiscal policy would call for repayment of debt rather than further borrowing. This might be more difficult if the Treasury were confronted with heavy maturities. It also is conceivable that the Treasury would be confronted with large demands for repayment of maturing securities when it was also faced with other large obligations. In other words, a constant stream of maturities does not allow the Treasury the flexibility of policy it needs for carrying a large debt.

The position of the Federal Treasury is less favorable now in regard to the maturity problem than it was after the First World War. The total public debt on June 30, 1919, amounted to only $27,391,000,000, or about one-ninth of the recent level. The magnitude of the maturity problem now can be seen by the fact that the Treasury, on June 30, 1948, had to meet maturities of nearly $49 billion in one year or less, compared with only $3.7 billion in one year or less on June 30, 1919.

The scope of the Treasury's problem after the Second World War can be seen in Table 31, which compares the percentage of maturities of marketable debt after each war.

In managing a debt, the ultimate objective must be the encouragement of the highest possible level of national income, and the growth in the nation's prosperity. This may at times call for rapid debt repayment. At other periods, such a policy may result in further accumulation of debt in order to prevent depression. As national wealth and income grow, the burden of the debt will naturally decrease unless, of course, the debt also grows.

Table 31. Maturities of Marketable Public Debt by Percentages after the First and Second World Wars

Period to maturity from date indicated	*June 30, 1919*	*June 30, 1948* *
1 year or less.....	15.0	30.1
1 to 5 years.....	14.3	3.4
5 to 10 years.....	18.8	29.3
10 to 20 years.....	28.3	11.3
Over 20 years.....	25.6	25.9

Source: Compiled from U.S. Treasury data.

* A better comparison with First World War data might be maturity distribution on Feb. 28, 1946, which was as follows: 1 year or less, 34.0%; 1 to 5 years, 10.2%; 5 to 10 years, 23.3%; 10 to 20 years, 10.7%; over 20 years, 21.8%.

The burden of a national debt. The burden of a national debt depends on several important factors. One is the size of the debt, unless we elect to accept the theory that a domestically held debt is no burden at all. That point of view is not accepted by the authors. The rate of interest which must be paid on the debt also determines in part the difficulty of carrying the debt, unless again it is agreed that collection of taxes to pay interest is no burden. Other factors determining the burden include the size of the national income and the wealth of the nation.

We have already seen that our Federal debt is very large, having grown from around $50 billion just before the Second World War to a level in 1948 of about $250 billion. However, the full impact of carrying such a debt has not been felt as seriously as it might have been had not interest rates declined in recent years. The interest rate paid on the Federal debt during the war and early postwar period was the lowest it has ever been.

Over the years the interest rate on the national debt has fallen. Just before 1800, the United States government had to pay 8 per cent interest on debt incurred during the Revolutionary War. During the period of the War of 1812, the interest rate was 5½ per cent. It was 6 per cent during the Civil War and about 4¼ per cent in the First World War. The cost of carrying the debt during the Second World War was on an

average about 2 per cent. Interest payments on the Federal debt in late 1948 were about 2.4 per cent of national income, a little more than the 2 per cent reached just after the First World War. In 1945, when our national income was less than in 1948, interest amounted to about 2.8 per cent of income. Interest must be met in both booms and depressions. If our national income were to decline sharply, the ratio of debt service charges to income would rise rapidly.

A comparison of per capita national debt with per capita national income is also an aid in visualizing the burden of the debt.

Table 32. The National Debt: Relation of Per Capita Debt to Per Capita Income

Year	*Per capita debt*	*Per capita national income*	*Per cent of debt to income*
1790	$ 19	$ 130	15
1812	15	125	12
1865	78	180	43
1920	240	640	37
1945	1,981	1,150	180
1948	1,715	1,518	113

Source: Compiled from U.S. Treasury and Census Bureau data.

It cannot be emphasized too strongly that national income must be kept at a high level if a large debt is not to prove burdensome. This certainly will be true in our own case in the years ahead. In the one hundred years after the Napoleonic period, the British debt increased thirtyfold, but interest as a per cent of national income remained about the same because of a fall in interest rates and a rise in national income. If Germany had remained a unified nation immediately after the Second World War, and had honored its national debt, interest payments would have been about 25 per cent of national income, a figure which is clearly too high. Other nations have borne interest burdens equivalent to 10 or 12 per cent of national income. The real test invariably comes in a period of declining income.

The burden of a national debt held by foreigners is greater than that

of a domestically held debt. To the degree that foreigners hold our public debt, they have a claim on our national production, because we must make payments to them for debt service. This can mean that less goods and services are available for home consumption. Almost all the public debt of the United States is domestically held.

In summary, we can say that the burden of a national debt will be least when the following conditions prevail:

1. The debt is small in relation to the debtor nation's annual income.
2. Government securities are held by all citizens proportionately to their own wealth and incomes.
3. The national income is growing at a faster rate than the debt is rising.
4. Interest rates are low and are expected to remain so. If interest rates are expected to rise, security holders will want to sell long-term bonds to avoid capital depreciation.
5. The bulk of the national debt is represented by long-term securities with maturity dates carefully spaced in order to avoid the need for raising very large sums in a short period of time.
6. The debt is domestically held.

The burden of a national debt will be heaviest when the following conditions hold:

1. The debt is large in relation to national income, and therefore requires heavy interest payments. Our 1950 Federal budget provided $5.4 billion for interest but made no provision for reduction of principal. This $5.4 billion was a relatively small sum in relation to our 1949 national income of about $223 billion. It would be a staggering sum in comparison with our 1932 national income of $42 billion.
2. Government securities for the most part are held by individuals with large incomes or are owned by wealthy institutions. This usually means a transfer of income from lower income groups to the already well-to-do. Since both wealthy individuals and institutions save a large portion of their incomes, this may result in heavy withdrawals from the income stream.
3. The economy has become stagnant, or the public debt is rising at a faster rate than national income.
4. A large portion of the debt is represented by short-term securities. This means that the Treasury must constantly meet heavy maturities.
5. A large portion of the debt is held by foreigners.

Can we repay our Federal debt? This question is not as ominous as it sounds. There is not the slightest danger, at any foreseeable time, that holders of United States securities will not obtain interest and principal when due. The real question is, Shall we merely borrow to repay debt as it comes due or shall we aggressively seek to pay off the debt as we did after World War I? It is clear that the repayment of a $250 billion debt, if advisable and desirable, would require a long time. Some fifty years would be needed if we paid only $5 billion a year. If we elected to make a payment of this size, about $10 billion a year would at first be required for debt service, including both interest and repayment of the principal.

The burden of the debt will decline as the years pass, even if the debt is held at the present level, provided high employment can be maintained and interest rates do not rise. We normally would expect a rise in national income if our labor force grows and the rate of output per man-hour increases as it has in the past. However, such an enticing possibility should not prevent us from reducing our own national debt as much as we can in order to be better able to cope with future emergencies as they arise. If we elect to pay it off, the most sensible policy, and perhaps the only possible one, would be to do so out of a budget surplus in periods of prosperity.

Accumulating funds for extinguishing debt. Various devices have been tried for accumulating funds for debt-reduction purposes. The merits of formal programs are open to some question because there really is only one way the funds can be obtained: more must be collected in taxes than is paid out in government expenditures. The difference is available for redemption of securities. It is of some value, however, to provide for debt reduction in the national budget. Otherwise, the Treasury will have funds for debt extinction only when a surplus exists. The appearance of a surplus always creates pressure for tax cuts or for new spending.

Other methods of debt reduction have been tried. At one time the provision of a sinking fund was regarded as sound public finance. Payments into such sinking funds usually were continued regardless of the level of national revenues. Either the fund was built up so that securities could be redeemed upon maturity, or the fund was used to acquire securities through purchase in the open market.

However, it was in time recognized that a rigid sinking fund is a de-

lusion in public finance, although often wise in private borrowing. If the government must borrow to meet a deficit, it is pointless to borrow still more to make payments into a fund to be used for debt redemption. Moreover, a large sinking fund is a tempting source of spending power for hard-pressed governments. If a sinking fund is diverted to a new spending project, it cannot be used for debt reduction.

Repayment of debt requires the exercise of much will power by taxpayers, legislators, and the Treasury. The collection of taxes for debt reduction is unpopular. To spend without taxing is always popular. Hence it is much easier to roll up debt than to pay it off.

The debt problem reviewed. Before we discuss the integration of debt management with other fiscal tools, let us bring together some of the diverse topics we have discussed. We should now be able to answer the two questions raised at the beginning of the chapter, namely, How can our debt best be managed so as to promote stability in our economic life? and, Should we try to pay off the Federal debt, and if so, how? We still, however, must probe the mechanics of fiscal policy. So far these points are clear:

1. A high level of national income is essential or the burden of our debt can become unbearable. We also noted that there is a direct relationship, although not always precise, between changes in the level of public debt and national income. Our Treasury and Federal Reserve officials, therefore, must manage the debt in a manner that will best foster a high level of national income. The responsibility carried by these men is great. In a nation as large and wealthy as the United States, it is questionable whether any small group of men can assimilate all the information required to handle this task with complete understanding.

2. The reduction of the United States public debt by a substantial amount is improbable. As the student noted in the preceding chapter growing demands are being made on the public Treasury despite the fact that our tax-paying capacity already is being strained. However, unless war or depression brings a new and prolonged era of deficit financing, we should try to reduce the debt as much as possible.

The student has noted the relationships between debt and our money supply. Borrowing from the banking system increases the supply of money and repayment depletes it. From June, 1940, to December, 1945, our Federal debt rose by $230 billion. Of this, commercial banks took nearly $75 billion, and $22 billion was taken by the Federal Reserve

banks. This was the period of the spectacular rise in our money supply. Prices rose also, and would have increased still more except for price controls. The price increase became spectacular later, when controls were removed. If the debt were to be reduced by a large amount, our money supply would contract. This would be deflationary and would bring all the uncertainty and human hardship which deflation implies.

The fact that everybody likes inflation in its earlier stages, but dislikes deflation, makes debt policy a matter of both economics and politics. A growing nation must have an increasing money supply. Debt reduction could be carried so far that economic progress would be impaired. On the other hand, continued rise in the debt is inflationary. The best possible of all compromises seems to be to keep our national income rising in real terms at a faster rate than the national debt if our debt must continue to grow.

3. If we elect to pay off the debt, it might be desirable to include an item for this purpose in the Federal budget. So far we have elected to depend upon use of a budgetary surplus for debt reduction if one developed. Budgeting for debt repayment, however, has one big advantage over dependence upon a surplus: the funds are set aside for the specific purpose of paying off debt, whereas the appearance of a surplus brings a clamor for new spending or tax reduction. However, just as a surplus can only appear in boom periods, it would be possible to budget for debt repayment only in times of prosperity. Herein is a weakness of sinking funds. They make sense only during periods when surpluses can be accumulated. If a government is operating in the red, it is pointless to borrow in order to accumulate a sinking fund. We have noted the danger that the existence of a large sinking fund will tempt hard-pressed Treasury officials to use it for other purposes than debt reduction.

No special taxes need to be levied for debt reduction. The best possible tax system will provide the largest revenues with the least expense and annoyance. The ideal tax for debt repayment is the progressive income tax, because it takes more from the upper income groups which usually own a larger proportion of government debt. As we have seen, the Federal government already is leaning heavily on this tax.

4. It would be desirable to get as much of the debt as possible into the hands of individuals. Acquisition of debt by the banking system tends to be inflationary and redemption of bank-held debt deflationary. Ownership of debt by insurance companies and other institutions is desir-

able except for the fact that such owners may hold large enough blocks to affect market prices if they suddenly decide to sell.

The sword of Damocles. When a debt is as large as that of the United States, it becomes a sword of Damocles. Just as the sword could come plunging down at any moment, so a serious mistake in debt management might be little short of a national calamity. Repayment of the debt is deflationary when a substantial proportion is held by the banking system. Expansion of the debt can be highly inflationary. The carrying of the debt means the collection and disbursement of large sums for interest charges. It is difficult to get rid of a debt when it has been contracted; it is difficult to live with it.

The proper timing of debt repayment. We have noted the direct relationship between the public debt and the level of incomes and we have seen also the direct relationship between debt and the money supply. Quite obviously a program of debt repayment should be carefully timed in order to insure its greatest possible effect on the stability of the economy.

A debt-repayment program has two distinct phases. The first is the collection of taxes to be used for redemption of securities. The second is the actual repayment process. There is little doubt that the taxes should be collected during the boom phase of the business cycle. This would mean the withdrawal of funds from the income stream. It would be deflationary. The timing of the actual repayment will depend on the phase of the cycle and on the type of security holder being repaid.

More inflationary pressures would be added if debt held by individuals were repaid during the boom. Such persons would probably seek new investment for the funds received from the government. They might, of course, increase their consumption. In either case, the effect would be inflationary. Only a few would be content to hold idle funds during a boom. Therefore repayment should be withheld until the recession or depression phase of the cycle develops. Debt repaid then provides funds for investment or even consumption.

The repayment of debt held by commercial banks also has to be timed carefully. The government will collect taxes during the boom for its debt-repayment program. This requires the transfer of deposits from the accounts of individuals to those of the government. This means the removal of funds from the income stream if the government holds tax proceeds in the form of idle balances. This acts as a brake on the boom.

Actual redemption of bank-held securities should take place during early stages of the recession phase of the cycle. It has two effects. It frees reserves which banks hold against government deposits, because these deposits are extinguished when securities are redeemed. It also deprives banks of earning assets when bonds are paid off. Banks will want to replace these assets either through the making of loans to businessmen or by purchasing other government securities. Either procedure is stimulating to economic activity. The making of loans enables businessmen to engage in employment-creating activities. The purchase of government securities bids up their prices and thereby forces down interest rates. Lower interest rates offer an inducement to businessmen to borrow and invest.

It would be undesirable to collect taxes and use the proceeds to repay debt during the recession phase of the cycle. That would result in a reduction of the money supply at a time when deflation is exactly what should be avoided. However, the deflationary impact can, during the recession phase of the cycle, be avoided if the funds are collected during the boom and impounded in government accounts until the most desirable time to redeem debt.

The repayment of debt held by the Federal Reserve banks is highly deflationary. The government collects taxes from individuals; this means that the deposits of individuals in commercial banks are reduced and government deposits are increased. Suppose that, preparatory to redeeming bonds held by the Federal Reserve banks, the government transfers its deposits from commercial banks to its accounts in the Federal Reserve System. This will reduce the legal reserves of member banks. Both the commercial banks and the government have accounts in the Federal Reserve banks, and the transfer is made by a reduction of the member bank accounts and an increase in the government account.

Since the accounts of the member banks in the Federal Reserve System constitute their legal reserves, the fall in their reserve balances may force the member banks to reduce their own deposits. They can do this by refusing to renew loans which mature. The reduction of member bank deposits will be a multiple of the cut in reserves. The exact multiple will depend in large part on reserve ratios existing at the time.

By using the tax proceeds to reduce debt held by the Federal Reserve banks, the government completes the process. The bonds redeemed are canceled, and so are the government deposits which are used to pay

them off. The reduction of debt held by the Federal Reserve banks was one of the devices used by the government to fight inflation in the spring of 1948.

The repayment of debt held by insurance companies and various institutional investors should follow the same timing as the repayment of debt held by individuals. Such investors will have funds to invest during the depression period if the government redeems the debt then. The funds for debt redemption should, of course, have been accumulated before the depression began.

The Treasury does not have complete freedom regarding the redemption of securities and, therefore, cannot time its redemption program precisely to coincide with the most advantageous phase of the business cycle. When securities are sold, redemption dates are specified. However, short-term securities are constantly maturing. Also, long-term bonds often provide for a span of years within which repayment can be made. Hence the Treasury does have considerable latitude.

State and local debt. So far in our discussion we have concentrated on an examination of our national government's debt. Several matters pertaining to state and local debt warrant our consideration. By state and local debt we mean the borrowings of our states and of our cities, counties, towns, and numerous other local governments.

Borrowing by state and local governments usually is accomplished through the issuance of longer term securities instead of the large proportion of short-term debt created by our Federal government in recent years. When state and local governments must borrow for short periods, they usually resort to bank loans, to the issuance of tax-anticipation warrants, or even, in an emergency, to the issuance of script. Most such short-term devices are paid off immediately upon the receipt of anticipated revenues. They rarely are outstanding more than a year.

The bonds of state and local governments can be classified into three types:

1. General-obligation bonds. Most state and local obligations are of this type. Funds for debt service come from the general revenues of the debtor government which guarantees payment of both principal and interest.

2. Revenue bonds. Such obligations have a claim to particular revenues. They frequently are issued to construct or acquire capital facilities such as public utilities or other income-producing improvements.

Revenue bonds are serviced with earnings of these particular enterprises. They may or may not be guaranteed out of general tax revenues.

3. Quasi-revenue bonds. Such securities have certain specific tax revenues dedicated to payment of principal and interest. In most cases, revenue bonds also are a contingent liability against tax revenues. This type of security frequently is used in making special assessments on property for such improvements as streets, sewers, and sidewalks. The assessments collected from property holders are devoted to servicing the bonds.

The states on the whole have made an excellent record in regard to prompt payment of principal and interest. Local governments have not done as well, and numerous cases of default are on record. The depression record of local governments was not satisfactory. At the depth of the great depression more than 1,100 local governments in all but six states were in default.

Because of the difficulty of some local governments in meeting maturities, the use of serial bonds has become widespread. This device calls for annual maturities of a portion of each issue. Aside from helping to solve the redemption problem, serial bonds enable the investor to select the particular maturity that best meets his needs. The use of serial bonds provides short-, medium-, and long-term securities in the same issue.

State and local governments have enjoyed much advantage from the fact that interest on their securities has been exempt from Federal income taxation. Since he does not have to pay tax on the interest, the wealthy investor is willing to lend to state and local governments at lower rates than he otherwise would demand. Despite this, the cost of borrowing has varied widely between governmental units because of differences in credit records. During the prosperity of the war years, many state and local governments reduced their debt. Revenues were large and public improvements had to be held to a minimum, because of man-power and material shortages. Revenues also remained high in the early postwar period, but a large backlog of public projects had accumulated and costs had soared. In addition to levying new taxes and raising rates on old ones, new debt was contracted. Many states assumed large obligations in connection with bonus payments to veterans. It appears that the matter of state and local debts may be of increasing consequence in the years ahead.

Fiscal Policy and the Public Debt

Modern national governments have at their disposal certain devices or tools which enable them to exercise a degree of control over their economies. One such tool is *fiscal policy,* which we can define as the use by government of its borrowing, repaying, taxing, and spending powers so as to obtain a high and stable level of incomes and employment. Many applications of fiscal policy concern the public debt.

The use of fiscal policy in a highly developed economy such as ours invests tremendous powers in government officials who direct that policy. It requires the employment of highly competent men who are extremely well educated. They must be able to grasp our over-all economic picture without allowing their actions to be swayed by adherence to particular economic philosophies. In fact, there is some question whether any man or small group of men can be found who are competent to ferret out and assimilate all the information required to handle such responsibilities. Let us summarize some of the elements of fiscal policy already touched upon in this and preceding chapters.

1. We have seen that there is a direct relationship between changes in the public debt and changes in the level of incomes. By borrowing and spending, the government usually can increase the level of incomes. Such increased government spending conceivably could be offset by declines in private spending, but this is unlikely. On the other hand, the government can apply a brake on rising incomes, and cause a decline if carried far enough, by reducing debt through tax revenues, especially if emphasis is given to redemption of debt held by the banking system.

2. The money supply can be increased by borrowing from the banking system and decreased by repaying debt held by the banks. The potency of an inflation can also be intensified through sale of securities to the Federal Reserve banks and the deflation made more severe by repayment of such debt. An increase in the money supply usually results in a rise in prices, and a decrease has the opposite effect. There is no precise relationship here, since the velocity factor and the level of production also are price determinants, but in general prices tend to rise and fall over a period of time with changes in the money supply. To the degree to which this occurs, fiscal policy enables government to influence prices.

3. The amount of spending for both investment and consumption can be influenced by tax policies. An increase in tax rates will take spending power from individuals and transfer it to government. A reduction of tax rates will mean more private spending power than would otherwise be available.

The power of taxation as a tool of fiscal policy is intensified in a nation which has accepted, as has the United States, the principle of steep progression in its income tax rates. Changes in both income tax rates and exemptions determine within limits the relative amounts of consumption and investment in the economy at any particular time. If more investment is held to be desirable, tax rates could be lowered in the higher brackets where most investment income is earned. Since the bulk of consumption is done by the lower income groups where the propensity to consume is high, a reduction in consumption could be accomplished by lowering income tax exemptions or by increasing rates in the lower brackets. On the other hand, consumption could be encouraged by lowering rates in the lower brackets and raising exemptions. Investment could be decreased by raising rates in the upper brackets. In the United States only Congress has power to change rates and exemptions.

4. Power over interest rates can be exercised in a number of ways. Since the yield on long-term government bonds symbolizes the pure rate of interest, interest rates can be held within a desired range by pegging bond prices. This can be accomplished through the purchase and sale of government securities by the Federal Reserve banks and by the borrowing and redemption policies of the Treasury.

5. Using fiscal policy in a broad sense, we can include under it certain monetary and banking policies. Variations in the required reserve ratios of the banks give a measure of control over the lending policies of banks, and thereby over the money supply. Control over consumer credit permits the volume of installment and other time sales to be regulated. Speculation in securities can be influenced to a degree through control over margin requirements.

6. The government can influence the amount of employment and income within the economy by its own investment program. Public construction, such as the erection of buildings, highways, and dams, can be stepped up when private employment is at a low level, and diminished when the private sector of the economy is active.

7. Numerous government agencies have lending powers. By varying

the amount of lending, the level of employment and incomes in the economy can be influenced. Loans can be increased during depressions and restricted during booms.

The use of fiscal policy requires a high degree of coordination and cooperation between the Treasury, other public agencies, and semi-autonomous bodies such as the Federal Reserve Board. It also requires a coordination of policies between the Federal government and other units of government. This cooperation has not always existed. For example, at one stage of the great depression of the 1930's, increases in Federal spending were largely offset by a decline in outlays by state and local governments.

Economic stabilization through fiscal policy. Let us consider how fiscal and credit policies might be applied to iron out the boom and depression phases of the business cycle.

We shall start with the boom. Let us assume that the boom is approaching dangerous proportions, and that the authorities feel that the brakes should be applied. Here are some of the steps that might be taken:

1. Personal income tax rates could be increased in all brackets, and exemptions lowered. Corporation tax rates also could be boosted.

2. The Treasury's debt-redemption program could be concentrated on obligations held by the Federal Reserve banks.

3. Federal funds, especially those recently collected in taxes, could be drawn into the Treasury's account in the Federal Reserve banks. Such funds would be in addition to those needed for debt redemption. This would diminish the legal reserves of the banking system. Reserve ratios of member banks could be raised so far as this is possible. The banking laws provide upper as well as lower limits to reserve requirements.

4. Any support being given to the bond market could be lowered or withdrawn so that bond prices would fall and interest rates increase.

5. Public-works projects could be curtailed so the government would not be bidding against private businessmen for scarce men and materials.

6. Various other brakes could be applied. Installment buying could be discouraged. Speculation would be curbed through raising of margin requirements on securities. Lending by government agencies would be halted.

Almost the opposite procedure would be followed during a recession.

1. Tax rates would be lowered and exemptions raised. Corporate rates

could be cut in order to encourage expansion. Reserve ratios would be reduced, so banks could expand their loans to businessmen. Also Federal securities held by commercial banks would be redeemed in order to increase reserves. In both cases, repayment would be made with funds accumulated during the boom phase of the cycle.

4. Official policy would be to foster a decline in interest rates. This would both discourage saving and encourage borrowing.

5. Public works would be stepped up. It is presumed that a backlog of projects would have been accumulated during the boom, and that these could quickly be put into operation.

6. Lending by Federal agencies could be stepped up. Installment buying would be encouraged. The buying of listed common stocks could be made easier by lowering margin requirements.

The acceptance of fiscal policy as a tool of government calls for balance of the Federal budget over the business cycle rather than on an annual basis. In fact, the objectives of fiscal policy can best be attained if the government boldly incurs deficits during depressions; it also must exercise the restraints and resistance to political pressures necessary to accumulate big surpluses during booms. Few democracies appear to be able to adhere to the demands of wise fiscal policy. It is easy enough to incur deficits and roll up debt during a depression. However, we already have noted the difficulty which develops during a boom. The taxpayers want lower instead of higher taxes. When surpluses develop, new proposals for spending also appear on every hand. It becomes very difficult to reduce the debt incurred during the depression.

Conclusions

As has been indicated in this chapter, the problem of our huge public debt must be approached from both short- and long-term points of view. Here are some observations in this regard.

1. A policy of debt reduction should be vigorously pursued through the years. However, such a policy must take into account the need for stabilizing production and employment. In the first place, we can expect our debt to rise during depressions, and we must therefore reduce it during booms. We must realize that borrowing and repayment of debt is a powerful factor in influencing incomes and employment. Such a tool must be used wisely and well.

2. A progressive and growing society requires an increasing money supply unless a secular decline in prices is to occur. For reasons expounded in a previous chapter, a falling price level probably is not sound policy. We know that there is a close relationship between public debt and the money supply. A limitation, therefore, exists on the rate and even the amount of debt reduction unless the burden of providing enough money can be shifted elsewhere. This should create no great barrier, however. In a growing society, private debt can replace public debt in creation of an adequate money supply. Moreover, some writers believe that the government should take over the responsibility of providing the economy with enough money, instead of depending upon the banking system.

3. As long as we have a huge debt, the main problem is that of living with it. Above all, the level of national income must be maintained. Otherwise, bearable tax rates will not provide enough income for the government and the debt will soar. This can happen during an ordinary depression. In fact, we have argued that deficits are desirable during depressions. However, a serious situation would be created if prolonged stagnation should develop in the economy.

4. Fiscal policy gives the government an important tool for maintaining the level of national income. The application of fiscal policy involves increasing or decreasing the public debt. The accomplishments of fiscal policy are highly dependent upon the wisdom and skill with which it is implemented. It is open to debate whether any individual, or any group of officials, has the understanding, knowledge, and experience necessary to meet the responsibilities of fiscal policy in a highly industrialized nation of 150 million persons. Errors of judgment can have very serious consequences. Our officials, though most of them are able and honest, are handicapped in implementing fiscal policy by political pressures. After the Second World War, they were impeded by our policy of supporting the price of government bonds in order to hold down interest rates.

5. On the whole, it seems most desirable to include an item for debt reduction in our budget during periods of prosperity. It is not sufficient merely to say that we will devote any surplus that may arise to debt reduction. When an unappropriated surplus appears, there are too many demands for tax reduction or for new forms of spending.

Review Questions

1. What are some of the troublesome questions raised by our large national debt?
2. Explain the relationship between the public debt and the national income.
3. What are some of the burdens of a public debt? Which is more burdensome, a foreign-held debt or a domestically held debt? Why?
4. Describe briefly the experience of our Federal government with its debt. What appears to have been the principal reason for increases of debt at various periods in our national history?
5. Who owns our national debt? What distribution of ownership would you regard as most desirable?
6. Explain how interest rates in our economy are influenced by our debt policy.
7. Why is the Treasury so reluctant to have government bond prices decline?
8. What is the reasoning behind the statement that the size of the national debt is unimportant as long as the debt is all held by Americans?
9. Enumerate the so-called advantages and disadvantages of a public debt.
10. What changes have taken place in the prevailing attitudes toward public debt?
11. What are some of the rules of responsible debt management?
12. Discuss the advantages and disadvantages of a sinking fund as it applies to public debt. If you reject a sinking fund, what provision would you suggest to provide for extinguishing debt?
13. Explain carefully the timing of a debt-repayment program.
14. What do we mean by fiscal policy? How would it be applied in boom and depression?

Problems

1. The following comment was made in an interview published in the *Chicago Journal of Commerce*, June 27, 1942: "We shall come out of the war debt free. We shall have no external debt, only an internal debt."

a. What probably was meant by this remark?

b. Do you agree that an internal debt is "no debt at all"? Explain your answer.

2. Harold G. Moulton, in his book, "The New Philosophy of the Public Debt," comments as follows:

"In fact, there is nothing in the long history of public finance which indicates that any government, and especially a democratic government, can be depended upon to apply the brakes to credit expansion when the proper moment has arrived. Always the pressures for continuation along the existing road are powerful and persistent." (Pp. 79–80.)

a. If this is correct, does it mean that monetary and fiscal policy are useless as tools of government in maintaining economic stability?

b. Why might the problem of applying brakes to credit expansion be more difficult in a democratic society?

c. Do the events of the past four decades in the United States support or repudiate the statement?

3. In its booklet, "Our National Debt after Great Wars," the Committee on Debt Policy comments: "The outstanding economic fact in this history of the debt and its results is that each great war produced a serious inflation of commodity prices." (P. 1.)

a. Why might war-created public debt produce a "serious inflation" of commodity prices? Would a sharp price rise necessarily have to follow the creation of debt in wartime? If not, how could it be prevented?

b. Why might a rapid reduction of debt be followed by a deflation?

4. Assume that the nation is in an all-out boom. How might the government use the tools of fiscal policy to prevent the excesses which often in the past have occurred during a boom? List all the steps that the fiscal authorities might take. Now assume that the nation is in a deep depression. Again calling on the tools of fiscal policy, list all the steps that might be taken to bring revival. List all the reasons you can why acts of government might not be successful in either the boom or depression periods.

Suggested Readings

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PART THREE

Direct Government Regulation of Business

Part Three deals with some of the principal ways in which the government interferes directly with business enterprises. Such interference may take various shapes, including the regulation of prices, forms of organization, accounting methods, and kinds of service rendered. In the past government regulation of business enterprise has been aimed first of all at preventing monopoly, or else at controlling it in the public interest. While direct regulation has been carried furthest in the utility industries, important controls have also been developed for the purpose of preventing monopolistic combinations among large industrial enterprises. In recent years, however, government controls have sometimes been extended to competitive industries. For example, since the 1930's the government has attempted to control the prices of staple agricultural products for the benefit of the farmers.

Part Three analyzes the effect of direct government controls on our economy, and the possible contribution of such controls to the solution of our major economic problems.

10. Monopoly

In the preceding chapters we have pointed out ways in which economic stability and progress could be furthered by the application of the right kind of monetary, credit, and fiscal policies. We shall now shift to a discussion of ways in which the government may contribute to or prevent stability and progress through interfering more directly with the organization or management of business enterprise.

The specific purpose of the present chapter is to analyze the problem of monopoly. We shall inquire into the nature and extent of monopoly, the relation of monopoly to large-scale business, and the economic effects of monopoly. We shall find that, on the whole, the effects of monopoly are highly undesirable; and we shall therefore propose methods for avoiding it or for mitigating its effects.

Complete versus Partial Monopoly

A complete monopoly may be said to exist when there is one and only one seller of a certain product. Paradoxically, however, complete monopoly does not mean complete absence of competition. This is because there are few if any commodities or services which a monopolist might control for which there are no substitutes. These substitutes provide competition. Oleomargarine competes with butter; iron, copper, and magnesium alloys compete with aluminum. In the field of the public utilities, monopoly is the rule, yet even there we find competition from substitutes. For example, the post office, the telegraph, and various other means of communication compete, to some degree, with telephone service. When the substitutes for a monopolist's product are poor, he need not worry much about competition. In many industries, however, adequate substitutes are available. Hence the monopolist is often confronted with very stiff competition.

Much of the so-called "monopoly" found in the real world is actually only partial monopoly. A common type of partial monopoly is known as oligopoly. Oligopoly is the situation which prevails when a certain commodity is offered by only a few sellers. While in some cases competition among sellers is very active under oligopoly, in other cases it is very difficult to draw a clear line between the effects of oligopoly and complete monopoly.

When there are only a few firms in an industry it is relatively easy for them to follow a common line of action. Sometimes they do this by making informal agreements. At other times, however, they achieve much the same result by merely following a leader. This leader is usually the largest firm in the industry. If, for example, the leader decides to raise the price of the product, the other firms in the industry raise the price too, and by the same amount. They do this because they believe it is to their mutual advantage to avoid competing with one another on a price basis. Where oligopoly prevails in an industry, any attempt on the part of one firm to undersell another is likely to start a price-cutting war in which all the firms involved will take heavy losses.

Some Limitations of Monopoly Power

Even under complete monopoly the power of a monopolist over production and price is subject to important limitations. First, as we have already noted, every monopolist must meet some competition from substitutes. Second, entirely aside from the existence of substitutes, consumers may resist any sharp increase in price by greatly reducing their purchases. Third, the monopolist may be subject to potential competition. If his profits are too great, others may be induced to enter the field and compete with him. If this is impossible, his high profits may stimulate the discovery and development of good substitutes. Fourth and last, if a monopolist charges excessive prices he may create widespread public resentment. The result of this is likely to be an insistent demand that the government step in and regulate his prices and his business.

The Extent of Monopoly in Our Economy

Monopoly in the utility industries. In one important group of industries, the public utilities, complete or nearly complete monopoly is the

usual situation. As the result of certain peculiar characteristics, these industries must usually be operated as monopolies, and so, in order to protect the interest of the public, it has become customary to subject them to government regulation. The only practical alternative to government regulation is government ownership.

Because of the importance of the public utilities, the following chapter is entirely devoted to a discussion of the problems which are involved in their regulation. In the present chapter, therefore, we shall concern ourselves only with the trend toward monopoly in other fields of industry.

Monopoly outside of the utility field. If we leave the utilities out of consideration, we find that there are few cases of complete monopoly of a major product. Even when such monopolies are established, they are likely not to be permanent. At one time, for example, a group in Chile had an almost complete monopoly of nitrate fertilizers, because the only important natural deposits were in that country. This monopoly, however, was broken up when it was discovered that nitrates could be made from the nitrogen in the air by the use of electric power. Again, for many years the Aluminum Company of America was the sole producer of new aluminum in the United States, and foreign competitors were kept out by a high tariff. However, during the Second World War there was a tremendous need for aluminum, and as a result several new producers were able to establish themselves in the industry.

To understand better why complete monopoly of an important product is not very common, let us consider the three principal methods by which monopoly can be achieved. These are (1) to acquire complete control of some natural resource essential in production; (2) to attain, by combination or otherwise, such great size, power, and efficiency that competitors are forced out of an industry or discouraged from entering it; (3) to obtain legally, by means of a franchise, trade mark, copyright, or patent, the exclusive privilege of producing some commodity or service.

It is clear that the first method, complete control of some natural resource, is not usually available because most natural resources are widely scattered over the earth's surface. In a few cases, however, a natural resource is largely concentrated in a given area. An example to which reference already has been made is the concentration of nitrate deposits in Chile.

In this country the cases of *complete* monopoly based on the power

or efficiency resulting from great size are rarer than those resulting from control of a natural resource. In many industries large-scale production results in no net gains in efficiency. In other industries the gains from large-scale production are very great, but only up to a certain point. There is always an optimum size, beyond which the efficiency of a plant or firm is likely to decrease rather than increase. Seldom can a firm, because of mere size, achieve such low costs that it can eliminate all its competitors by underselling them.

However, in industries where large-scale production offers great advantages, the smaller firms will in time fail, or be absorbed by the larger ones. Eventually only a few large firms will be left in an industry; in other words, oligopoly will prevail. Under oligopoly it may be possible for the firms which remain to eliminate competition by combining, or it may be possible for the largest firm to force its rivals out of business by employing certain "unfair" methods of competition. In the United States, however, complete elimination of competition is made difficult by the antitrust laws and some of the so-called "fair trade" laws.

Legal monopolies based in whole or in part on franchises, copyrights, or patents are very common. Even though public utilities are said to be "natural" monopolies,[1] their monopoly powers are usually bolstered by exclusive franchises granted by the government. Many monopolies are based entirely on patents and copyrights, but such monopolies are usually temporary. Copyrights may be secured for a period of 28 years and may be renewed for 28 more. Patents may be held for only 17 years and are not renewable. While patents are considerably more important than copyrights as a source of industrial monopoly, most monopolies based on patents are relatively minor. Occasionally, however, monopolies or near monopolies of some consequence are based on the control of a group of closely related patents.

Labor monopolies. Today the power of some national labor unions is so great that they may properly be called labor monopolies. In certain industries, of which the most notable is coal mining, the overwhelming majority of the workers are much more effectively organized into a single bargaining unit than are the employers. Where a national labor union, like the United Mine Workers, can present a firm and united front, it can insist on industry-wide bargaining; that is, it can insist that any

[1] Public utilities are "natural" monopolies in the sense that the services which they offer can be provided on a satisfactory basis only by a monopoly.

wage rate to which it agrees must be accepted and paid by all employers in the industry.

There is some reason to believe that labor monopolies can create problems quite as serious as those created by industrial monopolies. We shall return to this question later.

Large-scale Enterprise and Monopoly

The size of the business unit and the trend toward monopoly. We have already noted that oligopoly tends to develop in industries where large-scale production offers great advantages. In such industries the smaller firms are unable to compete successfully, and eventually only a few large firms are left. In most cases, if there were no legal obstacles, the final result would be complete monopoly, because in time the remaining firms would see the advantages of combining. In Europe this has been the usual result, because there one finds few if any legal obstacles to the formation of monopolistic combinations. These European combinations are generally called cartels.

In the United States the antitrust laws usually prevent the creation of complete monopolies. However, in industries which are dominated by a comparatively few large firms, these laws do not wholly prevent the employment of certain practices which greatly limit the scope of competition. Neither do they entirely prevent informal secret agreements, or unity of action achieved through the policy of following a leader.

Since the growth of large-scale enterprise has been a major factor in the economic trend toward industrial monopoly, it is desirable that we should review briefly the circumstances which have brought about, in modern times, a great increase in the size of the business unit.

Reasons for the growth of large-scale enterprise. Every textbook on principles of economics points out that some business enterprises are not well adapted to large-scale production, while in the case of others size offers tremendous advantages. In general the industries best suited to large-scale production are the following: (1) some types of mining; (2) the public utilities, including the transportation, communication, and power industries; (3) manufacturing industries which produce standardized products in wide demand.

Though in the industries mentioned large-scale production may offer great advantages through lower costs, we have noted that there is for

every firm an optimum or best size. If it expands beyond this optimum, any further gains resulting from size are more than offset through loss of unity, and through increasing costs of management. In other words, the firm becomes less efficient because it becomes unwieldy.

Though the industries in which large-scale production has great advantages represent a major portion of our economy, there are still many industries which can best be operated on a relatively small scale. Even in some of these, however, the size of the average enterprise is steadily rising. This is true, for example, of farming.

The principal advantages of large-scale production may be included under five headings. (1) The large enterprise can often effect economies in buying and selling. This includes possible savings on such items as transportation costs and advertising. (2) The large enterprise can more easily carry on research projects. It may, for example, scarcely feel the cost of operating an expensive laboratory because it can spread this cost over a very large volume of sales. (3) The large enterprise can utilize by-products more profitably because it can handle them in important quantities. In some cases it may even find it profitable to build special plants to process certain by-products. (4) The large enterprise can carry the specialization of labor further than the small business and in this way increase the output per man. (5) The large enterprise can usually employ the most modern, efficient, and highly specialized machinery, even though such machinery may be very expensive. The initial cost of the machinery is no great burden because, like the cost of an expensive laboratory, it can be spread over thousands or even millions of units of the final product.

While factors that increase efficiency and reduce costs have been the chief forces behind the growth of large-scale business, other factors have also played a part. Among these may be listed the following: the desire of businessmen to increase their power and importance; the desire to make monopoly profits; and the desire for the profits which usually accrue to the promoters of a corporate combination.

Historical Background of Monopoly in the United States

The origins of monopoly. Monopoly is not new in the world. In former times kings sometimes granted monopoly privileges to their favorites. In the great days of English colonial expansion Parliament granted exclusive

trading privileges over wide areas to corporations like the Hudson Bay Company and the East India Company. Before the development of modern roads and modern methods of transportation local monopolies were very common. The farmer had to take his grain to the local miller for grinding, because the expense of sending it elsewhere was prohibitive. Patent and copyright monopolies also have a long history. In the United States, patents and copyrights were provided for by Congress as early as 1790.

The development of monopoly in the United States. Although monopoly is not new, the types of monopoly which have been of chief concern to the people of the United States may be said to have come into existence after the Civil War. They resulted from the development of two types of large-scale enterprise, (1) the public-utility industries, and (2) the great industrial combinations which, a generation ago, were usually called trusts.

It was not until after the Civil War, in the 1870's, that monopoly and its regulation became a leading issue in this country. The immediate cause was the growing importance of the railroads, and the high or discriminatory rates which they often demanded. Over much of its lines each railroad had a monopoly of long-distance transportation. At other points several roads might find themselves competing with one another. However, when the latter situation prevailed, it was seldom long before the railroads involved managed to make an agreement fixing rates and pooling traffic.

Since railroads are public utilities, the problems of regulating them will not be dealt with in this chapter. Nevertheless, we should note that regulation of the railroads in the 1870's and 1880's paved the way for later action designed to control other types of monopoly. The agitation for regulation of the railroads had scarcely reached its height when strong demands began to be heard for control of industrial combinations.

Before the Civil War the United States was overwhelmingly an agricultural country. While industry was vigorous and growing rapidly, it was still in the early stages of development. There were no large-scale or mass-production industries in the modern sense. After the Civil War this situation changed rather rapidly. Industry began to assume more and more of its modern characteristics. Stimulated by the growth of the railroad network, and by advances in science and technology, large-scale enterprises began to appear in various industries. This did much

to pave the way for the formation of the great monopolistic combinations which later come to be known as trusts.

The Combination or Trust Movement

In the 1870's, under the leadership of John D. Rockefeller, the Standard Oil Company succeeded in creating a combination that controlled the oil industry of the entire country; and in the following two or three decades monopolistic combinations were created in a number of other important industries.

Forms of industrial combination. The chief forms which these monopolistic combinations took may be described as follows: (1) the simple agreement, (2) the pool, (3) the trust, in a legal sense, (4) the holding company, and (5) the consolidation or merger. The simple agreement may be open or secret, written or oral. The pool is a special type of agreement intended to secure cooperation in the limitation of production and the maintenance of prices. It achieves this purpose by allotting to each participant a definite portion of the available business. Sometimes the total output is agreed upon, and a certain part of it is allotted to each firm in the pool. Sometimes each firm is allotted a certain market area or a certain part of the total earnings of the group. A holding company is a corporation organized for the purpose of acquiring a controlling stock interest in other corporations. In this way it brings them under unified control. The legal trust is a special type of organization which will be described a little later. A consolidation or merger results when the properties of several companies are brought together by the creation of a single large company. Either a new company is formed or one of the original companies absorbs the others. Simple agreements are one of the most common methods employed to create monopolistic combinations, and they were widely used in the early days of the movement. Even though they were not enforceable under the common law, they served their purpose as long as those who made them adhered to them. Today they are clearly illegal under the antitrust laws. However, if they are secret they are difficult to prove.

The legal trust, or trust agreement. In the earliest days of the combination movement, after the Civil War, the pool was widely used by the railroads as a method of achieving monopoly control. Soon, however, the pool was made illegal by statute. When the first great industrial combi-

nations were formed, recourse was had to the legal trust, or trust agreement. When this, in turn, was declared illegal by the courts, the holding company became a popular device for bringing about combinations. Consolidation or merger has been available from the beginning as a method of combination; but it often has disadvantages in comparison with other devices.

The legal meaning of the word "trust" should be carefully distinguished from the popular meaning. In this country any industrial combination of sufficient size to exercise control over production and prices was, for many years, commonly called a trust. The word has now largely disappeared from popular use, but near the turn of the century the trusts were one of the chief topics of discussion on the lecture platform, in political speeches, and in the press. When this interest in the trusts was at its height, public antagonism was so strong that an effective way of damning any enterprise was to hang the "trust" label on it. The popular use of the word "trust" to describe any monopolistic combination came about because the first great industrial combinations used the legal trust as the device for centralizing the control of a number of companies.

The legal trust is merely a trusteeship, or trust agreement. The original Standard Oil trust agreement was made in 1879. In 1882 this was superseded by a more permanent agreement.[2] The arrangement was a very simple one. The holders of a majority of the stock of the combining corporations agreed to turn their shares over to a board of nine trustees. In exchange, they received trust certificates which could be bought or sold like shares of stock. The original stock of each corporation then could be voted by the board of trustees and, as a result, this board had complete control of all the companies involved in the agreement.

The cartel. A type of industrial combination which is of great importance abroad is the cartel. While actual cartels show considerable variations in their structure, the characteristics which usually distinguish the cartel from other types of combination seem to be the following: (1) The members of a cartel retain both their separate identities and financial independence, unlike companies acquired by a holding company or brought together in a merger. Therefore they may at some future time resume independent operations. (2) A cartel employs some type of

[2] SEAGER, HENRY R., and CHARLES R. GULICK, JR., "Trust and Corporation Problems," Harper & Brothers, New York, 1929. A description of the Standard Oil Trust of 1882 will be found on pages 49 and 50.

pooling arrangement. For example, each member may be assigned to a certain territory or it may be assigned a production or sales quota. (3) To carry out these pooling arrangements and to control prices, cartels frequently centralize sales in a joint sales agency called a syndicate. Often the word "syndicate" is employed to designate the cartel itself.

In the United States cartel agreements are illegal,[3] but in most European countries they are enforceable. Furthermore, many European countries have encouraged the formation of cartels. Often cartels operating in different countries have made agreements with one another to form international cartels. These international cartels have two principal purposes: (1) to reserve the home market for each national group, and (2) to allot market areas in regions outside the countries in which the cartel members are located. During the Second World War there was considerable controversy concerning the relations of certain corporations in this country with international cartels dominated by German groups. In some cases these corporations were charged with having made prewar agreements which interfered with the production in this country of certain products which were needed for the war effort.[4] The accused companies maintained that their agreements with the foreign cartels resulted in net gains for the United States. For example, it was claimed that the American companies gained the right to use valuable German patents.

Growth of the combination movement in the United States. The original Standard Oil Trust of 1879 was soon followed by the "Whiskey Trust," the "Tobacco Trust," the "Sugar Trust," and others.

In response to a popular demand to check this development of monopolistic combinations, Congress in 1890 passed the Sherman Antitrust Act, the first Federal legislation designed to discourage industrial combinations which tend to restrain trade and create monopoly. However, the Sherman Act by no means put an end to the combination movement.

The formation of monopolistic combinations continued for many years.

[3] PRIBRAM, KARL, "Cartel Problems," Brookings Institution, Washington, D.C., 1935, pp. 154–155.

[4] See BORKIN, JOSEPH, and C. A. WELSH, "Germany's Master Plan," Duell, Sloan and Pearce, New York, 1945. The authors make a very plausible case for the theory that through international cartel agreements Germany strengthened its own position at the expense of other countries.

The movement did not reach its height until the period between 1897 and 1903. During those six or seven years more trusts were formed than at any other time in our history. Since 1903 the combination movement has proceeded at a much slower pace, except for a period of revival in the 1920's.

Monopoly as an Economic Problem

Monopoly and the maintenance of competition. Actually the monopoly problem is only one aspect of a broader problem, namely, the problem of keeping our economy flexible by maintaining free markets and effective competition. Even where cooperation among a group of producers is incomplete, it may result in practices that can be labeled "monopolistic," and it may thus seriously limit competition. Moreover, certain policies of the government which have no direct bearing on monopoly may also limit competition. An example is the Miller-Tydings Act. This Act permits manufacturers to set the resale prices of their products, thus limiting the power of retailers to compete on a price basis with one another in selling these products. Another example of government policy which interferes with competition is direct price controls. The nature and effect of such price controls will be given special attention in a later chapter.

Four questions which relate to the monopoly problem. To have an adequate understanding of the monopoly problem itself we must be able to give fairly definite answers to the following four questions: (1) To what extent does monopoly actually exist? (2) Where monopoly does exist, or seems to be developing, what if any adverse effects is it likely to have on society? (3) To what extent, and by what means, have we already dealt with the problem of monopoly? (4) What further measures should be taken to meet the problem?

We have already answered the first question by pointing out (1) that complete monopoly is the usual thing in the utility field; (2) that in other industries complete monopoly of important products is exceptional, but that arrangements which approach monopoly in some degree are not uncommon; and (3) that minor monopolies resting on patents and copyrights are very common. We have partially answered the third question, concerning what has so far been done to meet the problem of monopoly, by pointing out (1) that in the utility industries monopoly has been accepted as necessary and the principle of government regula-

tion firmly established; and (2) that antitrust laws and certain fair trade laws have been passed to prevent or to break up monopolistic combinations in other industries.

We shall return later to a discussion of antitrust and fair trade practices legislation. First, however, we must dispose of the second and fourth questions raised above, namely, What are the adverse effects of monopoly on society? and, What further measures can we take in order to meet the problem of monopoly more adequately?

The case against monopoly. There are industries, like the utilities, in which monopoly offers overwhelming advantages in reducing costs and increasing efficiency. In most industries, however, the net effects of monopoly are socially undesirable. Some of these adverse effects are obvious and are understood by everyone. Others are not so obvious, and are frequently overlooked. This explains why comparatively few people have an adequate understanding of what monopoly does to our economy, or of the results to be expected if a great expansion of monopoly should take place.

The two most apparent effects of monopoly are (1) that it raises prices to consumers, and (2) that it reduces business opportunities by closing certain fields of enterprise to all except the fortunate holders of monopoly power. By raising prices to consumers monopoly reduces purchasing power and standards of living; and by closing certain fields of enterprise it limits an important kind of economic freedom, the freedom of those who possess energy and initiative to carry on enterprises of their own choosing. Most of the public opposition to monopoly has originated with consumers who resented high prices, or with small businessmen who felt that they could not survive in their struggle against large and powerful competitors.

Monopoly has other more or less obvious results. It robs the consumer of some of his power to make choices, since he must either take the product offered by the monopolist or go without. It frequently results in a deterioration of quality. It tends to retard progress, because the monopolist is under no pressure to reduce costs or improve his product in order to hold or increase his share of the market against competitors. It tends to retard progress for still another reason, a reason that is sometimes overlooked. A monopolized industry is under the control of one individual or a small group. It cannot, therefore, draw on the initiative and ideas of great numbers of *independent* producers.

One of the great sources of strength in a competitive industry, and in a competitive free-enterprise economy, is *the vast number of independent businessmen, each of whom may be a source of ideas and each of whom is in a position to try out his ideas.* Under an economy dominated by private monopolies, and likewise under a system of government socialism, this great source of strength would be lost.

The most serious evils of monopoly, when it is widespread, are its adverse effects on the over-all operation of a free-enterprise economy. Some of these effects are not readily seen, and they are therefore little understood by the public.

In the first place, monopoly tends to reduce the total output of the economy. The great advantage possessed by a monopolist is that he can raise the price of his product. However, he can do so only at the expense of limiting output. Unless a compensating expansion of production occurs in competitive industries, the net result must be a reduction of total output; but the greater the amount of monopoly in the economy, the less is the likelihood that expansion of production in competitive industries will be sufficient to offset the contraction which takes place in monopolized industries.

To the extent that monopoly reduces production, it also tends to reduce employment. Further, it makes the fluctuations of production and employment which accompany the business cycle more extreme than they would otherwise be. When business activity recedes and the demand for goods begins to decline, in competitive industries prices also fall. Because of the fall in prices, sales and production are better maintained than they otherwise would be. In monopolized industries, however, there is a tendency to maintain prices when demand is reduced. Therefore, a decline in demand, instead of resulting in lower prices, is reflected in a contraction of sales and production. It has long been observed that fluctuations of output tend to be greater in industries characterized by rigid prices than in those characterized by flexible prices.

In a recent policy statement of the Committee for Economic Development it was said, "Our economy can stand a certain amount of monopoly but not too much." It is pretty clear that if monopoly spreads too widely it tends to make a free-enterprise economy unworkable. It has this effect because it reduces business opportunities, stifles progress, decreases production and employment, and increases economic instability. From time to time acute crises arise, and the government is forced more and more

to intervene in the economic life of the nation. The final result is likely to be socialism. It should be noted that where industries are already organized into great monopolistic combinations, as was frequently the case in prewar Germany and Italy, the task of the government in taking them over completely is made very easy.

Remedies for industrial monopoly. In general there are two possible ways of dealing with industrial monopoly. Either we can accept it, as in the case of the utilities, and subject it to government regulation or even government ownership; or we can attempt to prevent it and, where it already exists, displace it by reestablishing competition.

Of the two alternatives, the acceptance and regulation of monopoly is probably the easier. Unfortunately, however, a system of regulated monopolies is a poor substitute for free competition among a number of independent business enterprises.[5] That is especially true if we rate as of first importance the maintenance of a dynamic, progressive economy. From this point of view government ownership is also a poor substitute. In addition, government ownership, if carried very far, would almost certainly end in complete socialization.

The second way of dealing with monopoly, by attempting to prevent or displace it, is a much more satisfactory solution if its objectives can be achieved. Unfortunately it is a much more difficult solution. In many industries the factors working toward greater concentration, and toward the limitation of competition, are very powerful. It has already been noted that they include such by-products of modern technology as the advantages of mass production and mass marketing.

In some industries the forces tending to bring about concentration are so strong that there seems to be no possibility of establishing more than a limited degree of competition. The question then arises whether it is better to maintain as much competition as possible, or frankly to accept monopoly under government regulation. In part the answer depends on the circumstances in each particular industry. In general, however, the authors believe that where a reasonable degree of competition is possible every effort should be made to preserve it or to develop it. In many industries the trend toward concentration and monopoly is not

[5] Some of the reasons for this are stated in "Corporate Concentration and Public Policy," by Harry L. Purdy, Martin L. Lindahl, and William A. Carter. Prentice-Hall, Inc., New York, 1942, p. 636.

inevitable, but is in part the result of government policies which permit, or even encourage it.

The remainder of this chapter will deal chiefly with possible methods for preventing monopoly, or for maintaining and encouraging competition. The following methods will be discussed: (1) the passage and enforcement of antitrust laws and fair trade laws; (2) legislation limiting the powers of national labor unions; (3) the avoidance of government policies which aid monopoly; (4) aiding small business and encouraging the formation of new enterprises; (5) encouraging the development and marketing of new products; and (6) modifying the patent laws so as to limit the use of patents as a basis for monopoly.

In the United States, up to the present time, the attack on monopoly has principally taken the form of antitrust laws and fair trade legislation. We shall therefore give special attention to the nature of this legislation and to the results achieved. It is probably legitimate to regard other remedies for monopoly as primarily ways of supplementing and strengthening antitrust legislation.

Antitrust and Fair Trade Legislation

To prevent monopoly and keep competition alive and active by means of legislation is not as easy as might be supposed. Various difficulties arise. One of these is to make a clear identification of monopoly. For example, How closely must a group of sellers cooperate in order to be regarded as a monopoly? Or again, Is a firm which produces 60, or 75, or 90 per cent of a product, and largely controls the price, to be regarded as a monopoly even though it is subject to some competition?

A second difficulty of controlling monopoly by legislation is to decide how far to go in prohibiting practices which, while not necessarily monopolistic, may lead to monopoly. A third difficulty is to draw up statutes that will be clear and definite in meaning. No matter how skillful legislators may be, the exact meaning of a statute can never be determined except as it is interpreted by the courts in decisions handed down in particular cases. A fourth and last difficulty is to get vigorous enforcement. To a large extent this will depend upon whether the public really demands it. In the case of antitrust laws, however, the public is likely to be only mildly interested, partly because it does not fully understand the implications of monopoly.

If we keep the major difficulties in mind, we will not be surprised to find that the antitrust laws and the fair trade laws have not been wholly successful in eliminating monopoly and maintaining competition.

The antitrust movement. Attention has already been called to the combination or trust movement, and to the passage of the Sherman Antitrust Act in 1890. This Act was passed in response to a popular demand that something be done to check the growing threat of monopoly.

The trusts were something new in American experience and, prior to the passage of the Sherman Act, our laws made very little provision for meeting the problems which they created. The principle that contracts in restraint of trade were unenforceable long had been established under the common law. However, the common law had been developed to meet situations quite unlike those created by the activities of the trusts. Moreover, it laid down no principles for dealing specifically with industrial monopoly.

When Congress passed the Interstate Commerce Act in 1887, and thus provided for regulation of the railroads, relatively little attention had been given to industrial monopolies. However, the Congressional investigation which preceded the passage of this Act brought to light many facts concerning the tactics of such combinations, and this led to a demand for antitrust legislation. A number of states took prompt action by passing laws forbidding monopolistic combinations. But the problem of industrial monopoly could not be dealt with effectively by the states for the simple reason that the activities of the great trusts covered the whole nation.

The Sherman Antitrust Act. The Sherman Antitrust Act was passed in 1890 as the result of pressure from the public. Like all Federal antitrust legislation, it rests upon the clause in the Constitution of the United States which gives Congress the power to regulate interstate commerce. The Sherman Act contains two principal provisions.

The first of the key provisions of the Sherman Act is found in Section 1 and reads as follows: "Every contract, combination in the form of trust or otherwise, or conspiracy in restraint of trade or commerce among the several states, or with foreign nations, is hereby declared to be illegal." Section 1 also provides that anyone violating this provision shall be fined not over $5,000 or imprisoned for not over one year.

The second key provision of the Sherman Act is in Section 2, and reads as follows: "Every person who shall monopolize, or attempt to

monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several states or with foreign nations, shall be deemed guilty of a misdemeanor." Violation of this provision is also punishable by a fine not exceeding $5,000, or by imprisonment for not over one year.

Three methods of court action are provided against violators of the Sherman Act: (1) criminal prosecution, (2) equity proceedings to enjoin and restrain violators, and (3) suits for damages by private parties who are injured by violations of the Act. If such suits are successful, triple damages may be recovered.

There have been great differences of opinion as to the effectiveness of the Sherman Act. Few Federal administrations have attempted really vigorous enforcement. Moreover, through court interpretations the seemingly sweeping provisions of the Act have lost a good deal of their force. Further, no one has ever been convicted, under its criminal provisions, in connection with the formation of an industrial combination. Yet in spite of these facts the Act has played an important role in shaping the character of our present-day economy.

In the decade following the passage of the Sherman Act results of enforcement were negligible. However, during Theodore Roosevelt's two administrations some effort was made to attack industrial monopoly by means of the provisions of the Sherman Act. A number of trust prosecutions were carried through, and several decisions were rendered by the Supreme Court which seemed to strengthen the Act. In addition, a Federal Bureau of Corporations was created, the chief function of which was to investigate large business organizations.

Antitrust prosecutions were even more vigorous under the administration of President Taft, and in 1911 the Supreme Court rendered the famous Standard Oil decision. It was in this decision that the well-known "rule of reason" first was set forth. The court held that when Congress, in the Sherman Act, forbade restraint of trade, it must have meant "unreasonable restraint." However, it found that the oil trust had engaged in such unreasonable restraint, and it therefore ordered the trust to dissolve.

Originally, as the reader will recall, the Standard Oil combination was formed under a trust agreement; but later, when such agreements were declared illegal, it was organized as a holding company under the laws of New Jersey. When the Standard Oil Company of New Jersey was

dissolved, each stockholder received his pro rata share of the stock of each of the thirty-three subsidiary companies. As a result, each of the former subsidiaries had the same stockholders, and all were controlled by the same small group which had controlled the parent company. Therefore, when the decision was first handed down the dissolution seemed meaningless to most people.

With the passage of time, however, stock has changed hands through death and sale, and the companies in the Standard Oil group have become increasingly independent of one another. In addition, with the growth of the oil industry, many new companies have sprung up. In other words, the Sherman Act ultimately proved to be an effective weapon in the struggle to maintain some degree of competition in the oil industry.

The Clayton Act and the Federal Trade Commission Act. There was wide dissatisfaction with the Sherman Antitrust Act, and when Woodrow Wilson became President in 1913 many people favored "putting more teeth" in the antitrust law. Also, many labor groups favored changes in the Act which would clearly exempt unions from prosecution under its provisions.

There is little doubt that those responsible for the passage of the Sherman Act were interested primarily in outlawing industrial combinations. Nevertheless, on a number of occasions the Act was successfully used against organized labor. The most famous case involving labor was that of the Danbury Hatters. While the Sherman Act makes no special mention of labor combinations, its language is broad enough to cover them. In the Danbury Hatters case, the United States Supreme Court held that a boycott sponsored by the United Hatters' Union was a conspiracy in restraint of trade. Therefore, it approved a judgment of a lower court assessing a fine of $250,000 against the officers and members of the union.

To meet the demands, both of those who wished a stronger antitrust law and those who wished to exempt labor unions from the anticombination provisions of the Sherman Act, two measures were passed in 1914. These were the Clayton Act and the Federal Trade Commission Act. The Clayton Act was designed to accomplish two things: (1) to strengthen the Sherman Act by forbidding certain specific practices which tended to lessen competition or create monopoly, and (2) to exempt labor from the provisions of the Sherman Act.

The first objective of the Clayton Act was sought because many believed that a great weakness of the Sherman Act was that it permitted a legal attack upon monopoly only after monopoly had been achieved. It was felt that in some cases monopoly could be prevented from developing if certain practices tending to produce it were specifically prohibited.

The Clayton Act forbade the following practices: (1) price discrimination among the customers of a given firm; (2) tying agreements, which provided that a customer buying certain desired articles must also buy other articles; (3) reduction of competition by acquiring ownership and control of competing firms; and (4) in the case of certain classes of competing firms, it forbade interlocking directorates. However, all these prohibitions applied only to situations where the practice specified would "substantially lessen competition or tend to create a monopoly." This meant that the legality of any given practice was left to the discretion of the courts. As a result the Clayton Act did relatively little to strengthen the antitrust clauses of the Sherman Act.

The second objective of the Clayton Act, namely, to exempt labor unions from the provisions of the Sherman Act, was not achieved. Again, the language was ambiguous, and in most cases the courts held that the Act did little to change legal provisions already in existence.[6]

The Federal Trade Commission Act was designed to improve the administrative procedures for enforcing the antitrust laws; and it was especially designed to provide more adequate control over unfair trade practives. As an instrument for achieving these aims the Act created the Federal Trade Commission.

The Federal Trade Commission took the place of the earlier Bureau of Corporations, but the Commission had much wider powers. Besides investigating corporations subject to the antitrust laws, it could issue "cease and desist" orders against illegal trade practices. If these orders were not obeyed, it could ask the Federal circuit courts of appeal to enforce them.

The relation of unfair trade practices to monopoly. While not all unfair and unethical trade practices result in monopoly, there is a close relation between the two. It would sometimes be difficult for even the

[6] For a discussion of the Clayton Act see KEEZER, DEXTER MERRIAM, and STACY MAY: "The Public Control of Business," Harper & Brothers, New York, 1930, pp. 24–26.

largest firm in an industry to obtain monopoly power without the aid of some unfair methods of competition. For this reason the establishment of the Federal Trade Commission, with substantial powers to discourage unfair competition, was an important advance in the struggle against monopoly.

The old Standard Oil Company is a good illustration of some of the unfair methods of competition employed by the early trusts.[7] One of its favorite ways of forcing independent firms out of business was to sell below cost in the territory of a competitor. The trust, meanwhile, because its operations covered the entire country, could make up its losses by charging monopoly prices in areas where no competition existed. The trust also had a great advantage through its power to force the railroads to grant it rebates, or reductions in rates which were not available to its competitors. Because it controlled a very large amount of freight, by merely threatening to transfer its business from one railroad to another it could usually gain concessions. Occasionally the trust had difficulty in forcing competitors out of business. In that case, it would try to buy them out. Generally it was successful in this because, when necessary, it was willing to pay high prices.

The American Tobacco Company was another trust that, in the early days of the combination movement, resorted to highly unethical practices. The officials of the company were aware that it had aroused public ill will through its monopolistic policies. One of the methods employed to offset any adverse effect that this ill will might have on profits was to set up dummy concerns which were represented as independents. These dummies put out "fighting brands" of merchandise to "compete" with the trust. One of the most popular and successful of these fighting brands was Battle Axe Plug Chewing Tobacco.[8]

The rise in standards of business ethics. It would be unfortunate to leave the reader with the impression that practices like those just described are characteristic of modern large-scale enterprise, or would be except for fear of prosecution. In a country the size of the United States there will always be some businessmen willing to engage in any kind of unethical or even criminal practice. Nevertheless, in the last half-century there has been a notable rise in the level of business ethics. Today most

[7] SEAGER, HENRY R., and CHARLES R. GULICK, JR.: "Trust and Corporation Problems," Harper & Brothers, New York, 1929, Chap. 8.

[8] *Ibid.*, Chap. 10.

businessmen are much more aware of their social responsibilities than they were in the past. This is particularly true of the majority of men who today control large enterprises.

Trade associations and monopoly. Trade associations are formed by the firms in a given industry in order to promote the mutual interests and the welfare of the members.

Trade associations are not necessarily instruments of monopoly. They may carry on activities which are not only beneficial to their members but also to the general public. These include such activities as joint research programs to increase the efficiency of the industry; the interchange of patent rights to permit their wider use; standardization of products; and the establishment of joint agencies for gathering valuable types of information. One writer has estimated that at least 80 per cent of trade-association activities provide useful services that have no monopolistic implications.

On the other hand, trade associations can be used as instruments to achieve monopoly, and they have sometimes been organized specifically for that purpose. At one time all the Florida and Georgia producers of wooden containers for fruits and vegetables organized the Standard Containers Manufacturers' Association for no apparent reason except to reduce output and raise prices.[9] The danger that trade associations will be successfully employed for monopolistic purposes is especially great in industries which are dominated by a few large firms. However, even in industries made up of a large number of small firms, trade associations have sometimes attempted to control the price and production policies of their members in order to obtain for them some of the benefits of monopoly.

The courts have applied the antitrust laws rather rigorously to trade associations which have openly undertaken to maintain prices or limit output.[10] They have held that the possession and exercise of such power was illegal, regardless of whether it was used in a fair and reasonable manner. On the other hand, they have generally applied the "rule of reason" to corporate combinations, and held that restraint of trade

[9] PURDY, HARRY L., MARTIN L. LINDAHL, and WILLIAM A. CARTER, "Corporate Concentration and Public Policy," Prentice-Hall, Inc., New York, 1942, p. 544.

[10] LYON, LEVERETT S., MYRON W. WATKINS, and VICTOR ABRAMSON, "Government and Economic Life," Brookings Institution, Washington, D.C., 1939, Vol. I, pp. 279–284.

through such combinations was not illegal under the antitrust laws unless it was "unreasonable."

Some writers believe that one of the weaknesses of the antitrust laws is that they are not sufficiently effective in restraining corporate mergers, while, on the other hand, they put unnecessary obstacles in the way of small businessmen who attempt a reasonable degree of cooperation through their trade associations.

The changing attitude toward big business and monopoly. During the First World War the trust problem receded into the background, and it never again regained the public attention which it once had held. Partly this was because other problems were more pressing during the war, and partly it was because the public had gradually become more tolerant of large-scale enterprise. They had come to accept it as a necessary part of our economic system.

Various factors contributed to this change in attitude: (1) The war demonstrated that, in some cases, unified control of an industry was an advantage, as, for example, in the case of the railroads. (2) Antitrust legislation and the development of government regulation had brought about a more cautious attitude on the part of business leaders. They took their social responsibilities more seriously than in earlier years, and in formulating policies they kept in mind the possible effects on public opinion. (3) The years following the war constituted a period of considerable prosperity, and this encouraged a tolerant attitude toward big business.

One result of this more tolerant attitude toward big business and its problems was the passage of the Webb-Pomerene Act in 1920. The claim frequently was made that the antitrust laws, by prohibiting combinations, put American corporations at a disadvantage in competing for export trade with foreign cartels. The Webb-Pomerene Act exempted from the provisions of the antitrust laws combinations entered into for the purpose of selling goods in the export market.

Meanwhile the Supreme Court had applied the so-called "rule of reason" in a number of antitrust cases, and had made it clear that an enterprise is not illegal under the antitrust laws merely because it is large. One of the decisions which helped establish this principle was that handed down in the United Shoe Machinery Company case in 1918. Another decision which had the same effect was the United States Steel

Corporation decision of 1920. Apparently controlling a substantial part of an industry, or even the greater part of it, is not contrary to the antitrust laws if no unfair and oppressive trade practices are engaged in.[11]

Some developments of the 1930's. One might suppose that with the coming of the depression there would have been a renewed demand for the breaking up of monopolistic combinations; but what actually happened was the very opposite. The belief became widespread, especially among businessmen, that the antitrust laws were an obstacle to recovery. Many people were convinced that, if the firms in each industry were allowed to make agreements setting and maintaining "fair" prices, the problems of the depression could be solved. They argued that fair prices would make possible fair wages, and that fair wages would contribute substantially to the recovery of sales, production, and employment. They overlooked the fact that to raise prices arbitrarily in a depression would have the immediate effect of contracting sales and employment still further.

Partly as a result of this belief that industry-wide cooperation to establish "fair" prices would aid recovery, the National Industrial Recovery Act was passed early in Franklin D. Roosevelt's first administration. This Act permitted each industry to establish a code of fair trade practices which would be binding on all in the industry. Though the United States Supreme Court finally declared the Act unconstitutional, during the period of its operation it encouraged price-fixing and other monopolistic practices. The idea of setting fair prices appeals to people's sense of justice and fair play. Unfortunately, however, "fair" prices set by an industrial combination are likely to prove only a euphemistic name for monopolistic prices.

While the NIRA, during its short life, represented an almost complete reversal of the antimonopoly policy of our government, in 1936 Congress passed a law which contributed something toward the further restraint of monopoly. This was the Robinson-Patman Act. Under this measure the amount of price reduction on large orders, compared with small ones, is limited to "due allowance for differences in the cost of manufacture, sale, or delivery." Under certain circumstances the Act allows the Federal Trade Commission to place arbitrary limits on price conces-

[11] KEEZER, DEXTER MERRIAM, and STACY MAY, "The Public Control of Business," Harper & Brothers, New York, 1930, p. 46.

sions.[12] In so far as this Act enables small firms to compete with large ones on a more equal basis, it is clear that it tends to limit the growth of industrial monopoly.

In the years just before the Second World War there were two developments that stimulated a revival of interest in the problem of industrial monopoly and in the broader problem of the concentration of economic power. One of these developments was the report of the Temporary National Economic Committee (TNEC), and the other was the inauguration of a new antimonopoly campaign by Assistant Attorney General Thurman Arnold.[13]

The TNEC was created June 16, 1938, by a joint resolution of Congress passed in response to a message from President Franklin D. Roosevelt. This message called attention to the need for a thorough study of the "concentration of economic power," and of its possible injurious effects on the American system of free enterprise.

The general conclusions of the TNEC were as follows: The economic freedom of individuals is restricted and often suppressed by large organizations against which they cannot adequately protect themselves. This situation brings a demand for more and more government controls. These government controls, however, in themselves are unsatisfactory; in addition, they tend to bring about an undesirable concentration of political power. A much more desirable alternative would be to check the trend toward the concentration of economic power. In order to check this trend, the government must do two things: (1) enforce the antitrust laws more vigorously, and (2) employ positive methods to encourage the growth of new private enterprise.

The Second World War and the postwar period. In the Second World War as in the First World War, enforcement of the antitrust laws was almost completely suspended. In the first place, the government was too busy with other matters. In the second place, many arrangements and agreements were necessary in industry to further the war effort. Naturally such agreements and arrangements were encouraged and sanctioned by the government, even though in normal times they might have rendered the corporations entering into them liable to prosecution under

[12] WATKINS, MYRON W., "Public Regulation of Competitive Practices in Business Enterprise," National Industrial Conference Board, New York, 1940, p. 49.

[13] See ARNOLD, THURMAN, "The Bottlenecks of Business," Reynal and Hitchcock, Inc., New York, 1940.

the antitrust laws. However, in the postwar period there has been a renewal of attempts to enforce the antitrust laws, and the government has instituted a number of new antimonopoly suits.

How effective are the antitrust laws? Opinions differ widely as to the effectiveness of the antitrust laws in restraining the growth of monopoly. Some believe that they have been almost a complete failure. Those who hold this opinion point out that the antitrust laws have not prevented the creation of a considerable number of great corporate combinations. As the result, a number of industries are dominated by a few large firms. In these industries, it is maintained, cooperation among producers is often very close, so that to all intents and purposes a condition of monopoly prevails. At the other extreme there are those who maintain that the antitrust laws have been so effectively enforced that industrial monopoly in this country has been completely wiped out.

This latter point of view is clearly expressed by an editorial writer in *Barron's*, who goes so far as to say, "Monopoly simply does not exist in business today, so effective has been enforcement of existing antitrust laws." [14]

The truth is, of course, somewhere in between. As was noted earlier, outside of the utility field there are few cases of complete monopoly of an important product. Nevertheless, there are a number of industries in which more or less monopolistic arrangements prevail. In some cases, the degree to which these arrangements approach monopoly is difficult to determine.

It seems certain, however, that the total impact of the antitrust laws and fair trade laws on our economy has been very great. While they have not reversed the general trend toward industrial concentration, they have checked it. Their effectiveness cannot fairly be measured by the fact that they have caused few great combinations to be broken up. Rather it should be measured by the effect they have had in restraining the creation of such combinations. They are sufficiently effective so that businessmen take them seriously. Without them the combination movement and monopoly might have made much greater progress in this country than has actually been the case. In spite of their faults, the antitrust laws are still our most effective weapon in the struggle against monopoly.

[14] *Barron's*, Oct. 18, 1948, p. 5.

Restricting the Monopoly Power of Labor Unions

If a labor union has complete control of the supply of a certain kind of labor in a given area, it is just as truly a monopoly as is an industrial enterprise which has complete control of the production and sale of a certain commodity in a given market. Just as *complete* monopolies of essential industrial products are rather unusual, so complete monopolies of essential kinds of labor are also unusual. However, in the labor market there are some cases where unions come very close to holding a complete monopoly of an important kind of labor.

The most serious type of labor monopoly is that found when a union has nation-wide control of the supply of labor in a basic industry. The most striking example of this is the United Mine Workers, the union which has almost complete control of the labor supply for the coal mines of the entire United States.

In the coal-mining industry the miners, under the leadership of John L. Lewis, are much more effectively organized into a single bargaining unit than are the employers. At any time the union is in a position to stop nearly all coal production in the United States unless the employers agree to any demands it may choose to make. If the employers do not agree, then the government must step in and exert pressure on the miners or the employers or both, since a stoppage of coal production for any length of time would be a national disaster.

Twice in recent years the government has had to take over operation of the coal mines to maintain output because the mine owners and Mr. Lewis could not come to an agreement. The situation now existing in the coal industry may not only stifle competition, but it may also threaten the continuance of private enterprise in this industry. Eventually the government may be forced to acquire ownership of all coal mines.

Some have urged that the problem of labor monopoly should be met by amending the antitrust laws so that they would clearly apply to labor as fully as to industry. It might, however, be difficult to apply the antitrust laws to labor without limiting to an undesirable degree the rights of workers to organize and to strike.

Another proposal is that national labor monopolies should be broken up by prohibiting industry-wide collective bargaining. Under this pro-

posal the employees of each firm could organize a union, but each union could bargain only with the employer of the workers whom it represented, and it would have to bargain with him independently. While such a proposal would doubtless be very unpopular in labor circles, it has a good deal of merit. If we are to preserve a free-enterprise economy, with all its benefits, we must maintain wide areas of competition. This will scarcely be possible if we allow monopoly to develop without restriction; and there seems no good reason to assume that labor monopolies are any less dangerous than industrial monopolies.

Other Methods of Restricting the Growth of Monopoly

Avoiding policies which aid monopoly. While public policy in this country has been to prevent monopoly wherever possible, some government actions have in fact encouraged it. For example, the combination movement was at least facilitated by the legalization of the holding company. New Jersey took the lead in this in 1889, and other states soon followed.

Perhaps the most important support which the Federal government has given to private monopoly is represented by our protective-tariff laws. As noted earlier, the monopoly of the Aluminum Company of America was for many years protected by a tariff which excluded foreign competition. In a number of other industries collusive agreements have been easier to make and have been more effective in giving monopoly control of prices because foreign competition was kept out by tariffs.

The reduction or removal of tariffs, as well as other restrictions on foreign trade, is clearly one method of limiting monopoly and broadening the base of competition. In recent years a substantial reduction of tariff rates has taken place through the making of reciprocal trade agreements. It is desirable that the policy of making such agreements should be continued.

Aiding small business and encouraging the formation of new enterprises. As long as small business units can survive, and compete effectively in an industry, there is no danger of monopoly. Small business faces special problems involving management, finance and taxation, and competitive opportunity.[15] While it is probably not desirable that the

[15] See "Meeting the Special Problems of Small Business," a policy pamphlet issued by the Committee for Economic Development, New York, 1947.

government should subsidize small business directly, wise legislation can do something to help it survive and flourish. The government can aid it by protecting it from unfair competition from large enterprises; by carrying on research for its benefit and providing it with information; and by facilitating the creation of financial institutions which will better meet its needs for capital. In a previous chapter reference was made to a proposal of the Committee for Economic Development that special capital banks be established for the purpose of providing risk capital for enterprises of small and moderate size.[16]

The continuous formation of new industries is, of course, another restraint on the growth of monopoly. One of the conclusions reached by the Temporary National Economic Committee was that the government should develop positive programs to encourage and develop the growth of new private enterprises.

There are many ways in which the formation of new enterprises could be encouraged. These include measures which would facilitate the financing of such enterprises; measures to remove government regulations which they might be unable to meet; measures for providing them with information and the results of research; and, possibly, the extension to them of tax concessions for a limited period of time. Basically, the problem is twofold. It involves (1) creating conditions under which it is reasonably easy to start new enterprises, and (2) creating an economic atmosphere in which the hope of profits is sufficient to make it worth while to start new enterprises.

Encouraging the development and marketing of new products. Often the most effective kind of competition is the competition of substitutes. We do not need to fear the power of any monopoly if there are satisfactory substitutes for its product, and if these can be had for reasonable prices. Anything that stimulates research, discovery, and invention helps to keep our economy competitive and flexible as well as progressive. The government is in a position, in many ways, to encourage the development and marketing of new products.

Modifying our patent laws. Patents are monopolies granted by the government to those who invent new devices. Almost any tangible thing which is really novel may be patented. The purpose of our patent laws is to encourage progress by reserving to inventors the sole right to exploit

[16] P. 199, "Banking Problems."

the products of their ingenuity. It is clear that, on the whole, the issuing of patents has served this purpose and has been a wise public policy. However, it would not be in the public interest to allow an inventor to set up a permanent monopoly. Therefore, the law limits to 17 years the period for which a patent runs.

While the granting of patent monopolies is a desirable public policy, patents are sometimes used as the basis for obtaining much broader monopoly power than that intended by the legislators who enacted the patent laws.

One of the serious abuses of the patent privilege is the setting up of patent pools in order to obtain a monopoly of some product which can be manufactured most efficiently only with the aid of a number of closely related patents. If each of several companies controls some of these patents, it may be to their mutual interest to enter into a pooling or cross-licensing agreement. If they refuse to issue licenses to outsiders, their advantages may be so great as to give them monopoly power. Monopolies created in this way may run far beyond the 17 years for which a patent is good, because it may be possible to keep adding new patents to the old ones.

While patent pools which tend to create broad monopoly powers can frequently be attacked under the antitrust laws, many complex and difficult situations arise. To reduce the extent to which patents can be used to maintain monopolies, it has often been urged that the licensing of patents should be made compulsory.[17] If some plan could be devised whereby the holder of a patent would be required to license it on a reasonable basis to anyone who might wish to use it, monopolies based on patents would no longer be possible.

Moreover, such an arrangement would also have the advantage of preventing the suppression of patents. Under present conditions it sometimes happens that a corporation which holds a patent representing an important technological advance does not use it. The most common reason is that the corporation in question has a large investment in plant and equipment which the suppressed invention would make obsolete. In certain foreign countries patent rights expire automatically in a relatively short period of time if a patent is not used.

[17] See LYON, LEVERETT S., MYRON W. WATKINS, and VICTOR ABRAMSON, "Government and Economic Life," Brookings Institution, Washington, D.C., 1939, Vol. I, p. 50.

While many difficult questions arise in connection with patents, it seems probable that a careful revision of our patent laws might make a significant contribution to solving the problem of maintaining a free and reasonably competitive economy.

Conclusions

The analysis which has been made in this chapter indicates that monopoly is a serious economic problem. Not only does it put the consumer at a disadvantage, and reduce economic opportunities by eliminating the independent businessman; it also tends to make the whole economy work badly, because it stifles progress, decreases production and employment, and increases economic instability.

Unfortunately, monopoly is not a simple problem. In the utility industries it must be accepted and regulated. In other industries complete monopoly is not very common, but often arrangements are found which approach monopoly in a degree difficult to determine. Such arrangements are most likely to be found in industries controlled by only a few large producers.

Where monopoly is not inevitable, we have two choices in dealing with it. We may either permit it and regulate it, or else attempt to prevent it or break it up. Since an economic system made up of controlled monopolies would be likely to lead to socialism, and in any case would be a poor substitute for an economy based on free markets and competition, we should choose the second alternative. Wherever there is a reasonable chance of success, we should strive to prevent monopoly and encourage competition.

The antitrust laws and certain of the fair trade laws have already made a significant contribution toward restraining the development of monopoly. These laws should be retained and vigorously enforced. It is probable that they could be improved considerably by wise amendment. However, the problems with which they deal are so complex that proper amendment would be difficult. Almost any major change that could be suggested would arouse much controversy. A serious attempt to strengthen the antitrust laws would meet strong opposition, both because it would hurt some existing business interests, and because many people would feel that it was unwise and unnecessary. One basic difficulty that is involved in any attempt to restore free and competitive

markets is that in many modern industries large-scale enterprise is inevitable. In such industries competition must at its best be limited and imperfect.

In addition to retaining and enforcing the antitrust laws we can attack the problem of monopoly by (1) avoiding government policies which aid monopoly; (2) supporting competition by helping small business units and encouraging the development of new enterprises; (3) encouraging the development and marketing of new products; and (4) examining our patent laws and making such changes in them as may be necessary to prevent them from being used to support monopolies which are not in the public interest. It is in the public interest that inventors should receive the benefits of their inventions for a limited time. It is not in the public interest that patents, through pooling or otherwise, should serve as the basis for controlling the production of important products for an indefinite period.

We can conclude our study of monopoly with the following observations: Competition is still a powerful force in our economy, and a force essential to its efficient operation. Wherever monopoly replaces competition, economic adjustments are made more difficult. The result is to slow up progress and to increase instability. If the swings of the business cycle are to be mitigated in a free-enterprise economy, competition must be preserved and developed. Efforts to maintain competition cannot alone cure the business cycle, but it is clear that such efforts must be made if we are to secure the flexibility which is necessary to keep our economy stable and progressive.

Review Questions

1. What is meant by "partial monopoly"? Is partial monopoly more or less common, in industry, than complete monopoly? Explain.
2. What are the chief limitations on the power of a monopolist?
3. Describe the extent of monopoly in our economy.
4. What relation, if any, is there between large-scale business and monopoly?
5. What are the chief explanations of the growth of large-scale business during the last hundred years?
6. Explain the role of the public-utility industries and the trusts in the development of monopoly in the United States.

7. Describe each of the principal forms of industrial combination, and trace the growth of the combination movement in the United States.

8. What adverse economic effects does monopoly have on our society?

9. Speaking broadly, what are the two possible ways of dealing with monopoly? Which is to be preferred? Why?

10. Outline briefly the history of antitrust and fair trade legislation in the United States.

11. State and explain the principal provisions of (1) the Sherman Antitrust Act, (2) the Clayton Act, (3) the Federal Trade Commission Act.

12. What is the relation of unfair trade practices to monopoly?

13. To what extent have trade associations been employed as a means of achieving monopoly? Has anything been done to meet this problem?

14. Why is there today less public opposition to "big business" and monopoly than there was in the past?

15. Explain the relationship to the monopoly problem of each of the following: the NIRA; the Robinson-Patman Act; the TNEC; Thurman Arnold.

16. How effective have the antitrust laws been? Should they be retained? Should they be amended? Explain.

17. What is meant by a "labor monopoly"? What proposals have been made for meeting the problem created by labor monopolies?

18. In what ways has government actually encouraged monopoly? Suggest changes in policy which would remedy this situation.

19. Show how each of the following policies might develop competition: (1) aiding small business and encouraging new enterprises; (2) encouraging the development of new products; (3) modifying the patent laws.

Problem

1. In a recent article Professor Donald L. Kemmerer of the University of Illinois made the following statement [18]:

In general, the more an industry grows, the more it is mechanized. The more it is mechanized, the more it must operate continuously to support its fixed costs, and

[18] "Opinion and Comment," *University of Illinois Bulletin*, November, 1948, p. 36. From an article entitled "Where Are We Going?"

the more it tends toward monopoly and becomes subject to government regulations. Every decade of scientific and technological progress sees more industries enter this category. Meanwhile the rest of us organize in self-defense, as labor has, not only around the bargaining tables but at the polls. In time that produces more government intervention. These are the forces that are reshaping our economic system. . . . There may be occasional interruptions in the future. . . . Still, the long-run trend appears to be towards more regulation, with socialism beyond the horizon. . . . You may hasten or delay its coming by your behavior and your vote but there is little likelihood that you can prevent its coming.

If Professor Kemmerer is right, is there any use in attempting to preserve competition? Whether you agree with Professor Kemmerer or not, present as strong a case as you can against his conclusions.

Suggested Readings

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11. Price Control—Public Utilities

The analysis in Chap. 10 was concerned with methods of enforcing fair competition. It was concluded that fair competition will help keep prices flexible and in this way facilitate the adjustments of our economy to changing conditions. If such competition can be brought about the economy will operate efficiently. This combination of flexibility and efficient operation should lead to a reasonable degree of stability and progress. Under such a system standards of living should keep rising.

It was pointed out, however, that competition as a regulator in the economy cannot be used in every area, nor is it the only force that can be employed. Monetary and fiscal policies have been studied and we saw that they offer possible solutions for many of our difficulties.

In this chapter we shall deal with yet another area of our economy, namely the public utilities. These industries, while difficult to classify, possess certain characteristics which make it necessary to control them in a special way. In the main, utilities may be classified as those businesses which possess special privileges secured from government, and which are generally allowed to operate as monopolies. It will be sufficient for our purpose in this discussion to name a few important utilities, and then proceed to discuss certain problems which arise when the government undertakes to regulate them. We shall see that the utilities present an excellent case study of the difficulties encountered when industries are regulated. Any success or failures discovered in connection with the regulation of the utilities may serve as a guide in weighing the extension of regulation to other industries. In the last analysis, any regulation imposed on public utilities involves price control, and it is this phase of regulation which must be most carefully considered.

The problems to be dealt with in this chapter are the following: (1) Has regulation of the public utilities led to progress and stability in these industries? (2) If so, should this kind of regulation be extended to other industries? (3) If not, what proposals can be made to improve the regulation of public utilities?

Before these problems are considered, it is well to point out that public utilities are not the only type of industry subject to special control. In fact, the area of public control is much greater than commonly supposed. Space, however, does not permit an extended discussion of the nature of controls in other fields of industry. The remainder of the chapter will, therefore, deal chiefly with a discussion of the problems relating to the public utilities.

Characteristics of Public Utilities

We have pointed out that public utilities operate under two basic advantages. First, they usually operate as monopolies, and second, their monopoly power is generally strengthened by exclusive franchises or permits granted by the state. The chief reason for granting franchises to public utilities is to enable them to use public property for their installations.

Use of public property. Nearly all public utilities must use public property. A railroad crosses public highways, rivers, and streets. Streetcars operate on the city streets. Electric, gas, and telephone companies use public property for their lines, pipes, or poles. The use of public property requires the grant of a special privilege. It also requires that regulation be imposed, although it may not in every case require that prices be regulated by the state.

Necessity for monopoly. Public utilities possess several characteristics that make monopoly desirable and even necessary. We have just pointed out that utilities must use public property. If for no other reason than to avoid cluttering public property because of duplicate equipment, utilities should operate as monopolies. It can be seen that the public would be greatly inconvenienced if two or three streetcar companies each built their tracks along a street. This same problem arises if two or more electric companies operate in the same city. Here duplicate electric lines become a distinct fire hazard. So it is with most utilities.

There is another reason for allowing monopoly in these industries.

Most public utilities require an extremely heavy capital investment. For example, an electric company in one of our large cities will have invested several hundred million dollars in property and plant. Again, a railroad owns its roadbeds, terminals, tracks, and other equipment. Its investment in right of way alone is tremendous.

To allow several competing companies to duplicate the service when investment is so large is not good economic practice. Hence it is discouraged by requiring all who wish to enter the public-utility field to secure a certificate of convenience and necessity from the state.[1] These certificates are generally not issued unless real need can be demonstrated. By thus limiting freedom of entry, the authorities hope to enable those already in the industry to operate efficiently and charge reasonable rates.

Because of the heavy investment in a utility, gross annual income is relatively small when compared with investment. We refer to this relationship between gross revenue and total investment as capital turnover. This term is defined as the ratio of gross annual income to capital investment. To illustrate, if gross income in any year is $100 and capital investment is $1,000, we say that the capital turnover is once in 10 years. Or to state this another way, $10 of capital is required for every $1 of gross annual income. In many industries only $1 of investment is required for every $1 of annual sales; in some industries the ratio is even less. When the ratio of gross income to capital is small, fixed costs are of greater significance because a large capital investment means big outlays for interest and amortization. Furthermore, the investment is chiefly in fixed assets which the company does not sell. Hence, it remains as a fixed burden, although annual income may vary over a wide range. This overhead, or fixed burden, cannot be shifted in the short run; hence its economic significance must be carefully considered when the state regulates the price of the services of a utility.

Nature of the service. We have pointed out that the use of public property and the possession of monopoly power are basic characteristics of public utilities. A third characteristic relates to the nature of the service. A utility company may produce one or at most only a few varieties of service. Yet the consumer may use a given kind of service for numerous purposes. An electric company, for example, may sell only electric

[1] A certificate of convenience and necessity is a permit granted to a utility which allows it to operate in a certain territory. Such a certificate also requires that utilities receive permission before they may abandon service.

current. This may be used for home consumption, or for commercial or industrial purposes. However, the home consumer may use the service for lighting, cooking, water heating, and power. Commercial and industrial customers have a still greater variety of uses for electricity. Yet the company by the same identical process furnishes a product which serves for all these purposes. The same is true to a greater or lesser degree with all utilities.

If customers use a basic type of service for a variety of purposes, some portions may be more essential or valuable than are others. This question then arises. If the utility is to serve the general welfare, should it charge the same price to all, regardless of the use to which the service is put, or should it charge a variety of prices in order to obtain maximum utilization of its plant? Under such conditions a variety of prices might promote the general welfare. However, if prices are to vary for different uses, the differences must be based on something other than actual cost of the service. But what standards should be used? Further, what is the function of the state in such a situation? Is it not the duty of the state to require that rates are fair and reasonable? When we attempt to answer these questions we find that price control of utility services is a complex problem because of the many factors that must be taken into account.

In order to understand some of the basic issues which arise when utility prices are controlled by the state, we shall study the steps which must be taken in regulating the utility industries.

Selecting a Producer

Often a producer is already operating when control is first undertaken. When that is not the case, selecting a producer is in itself a problem. The first step is to determine the requirements necessary for adequate and efficient production. As was pointed out, most public utilities require large amounts of capital in order to operate efficiently, because production and distribution costs are large and capital turnover is slow. Hence, the first requirement is that the producer have sufficient capital to build and extend his plant as conditions require.

In most cases the utility business is complex. To operate such a business requires not only ordinary business judgment but also technical knowledge. Hence, the corporation selected must not only have sufficient

capital but must also be operated by businessmen who possess "know-how." Moreover, those in control should understand the economics of utility operation. They should understand overhead costs, and the relation of costs to the value of the service. They should be acquainted with the theories and implications of various depreciation methods, and they should be able to distinguish between gross profits and net profits. Finally, they should be intimately acquainted with the problems involved in fixing the prices of utility services.

It may be difficult to find a management which has adequate capital, and technical and industrial "know-how," and, in addition, understands public-utility economics. In consequence, the regulatory agency is often limited in its choice as to suppliers of services.

The Regulation of Utility Rates

Two factors involved in regulating utility rates. From the point of view of the consumer the problem of fixing the prices of utility services involves two considerations. First, a low price is in the interest of the consumer. Second, a high quality of services is also in his interest. Beyond a certain point these two objectives conflict. If prices are kept too low the quality of the service will deteriorate. The first problem, then, is to determine upon certain standards of service. Once these have been set, the best method of determining fair prices must be found.

Franchise regulation. Governmental units have used various methods to regulate prices. One used in the early days was to determine the specific price and include it as a provision of the franchise of the utility. In the street-railway industry, for example, the 5-cent fare was almost universally adopted. This price was considered fair despite differences in quality of service or length of ride. Little consideration was given to variations in cost between companies operating in different communities. Obviously this method of pricing was unfair, because favorably located companies could make huge profits while those less favorably located might be forced into bankruptcy. Moreover, such a price was inflexible, since it remained in force during the life of the contract. This meant that rates did not change in response to increases or decreases in demand, changes in technology, or changes in the general price level.

Such a method of setting utility rates was bound to fail, especially when the general level of prices rose. For example, during and after the

First World War, prices rose rapidly; in consequence the 5-cent fare was soon out of line with other prices. Costs rose, and this forced many street-railway companies into receiverships. The only relief that could be given was to modify the terms of the franchise which specified 5-cent fares. This, however, proved to be such a slow procedure that companies often failed before relief could be granted. Other utilities which had accepted fixed prices also suffered in this period. The record indicates that price fixing by franchise or charter is not an effective way of establishing fair prices.

Regulation by legislative fiat. A second method of setting specific rates for the services of utilities was by legislative enactment. Prices set in this way could be changed more quickly than those fixed by franchise. However, not only was the procedure slow, but the price as established generally bore little relationship to cost. In fact, under this method, prices usually were set either by bargaining or in response to the demands of pressure groups. Graft was common. We may conclude, therefore, that price fixing by legislative fiat is not satisfactory.

Judicial regulation. A third method of setting utility rates was to allow a court to determine whether prices were fair. The judge listened to the testimony and then decided whether prices should remain at present levels or be changed. While such a procedure was somewhat more scientific than price determination by legislative fiat, few judges had the time to acquaint themselves thoroughly with utility problems. Furthermore, the public was in no position to question the data presented by a company. Hence, this method has been abandoned.

Regulation by competition. A fourth method, still used in some instances, is to allow several companies to compete. While prices may be reduced by this method, duplication of equipment and the danger of destructive competition tend to create the very evils which made regulation necessary in the first instance. It has also been discovered that, where competition is introduced, the companies soon become aware that competition is not in their own interest. They either make definite agreements as to prices or maintain prices by tacit consent.

Commission regulation. Finally, rates charged by public utilities may be determined under the supervision of permanent public-utility commissions. While this method is fraught with many difficulties, it is designed to give the consumer, as well as the producer, reasonable rates for the actual service rendered. Under commission regulation, every pro-

ducer must justify his costs and is expected to charge prices based on these costs. It is assumed that rates will vary between communities because costs are not the same in all plants. In fact, a variation in rates between communities served by the same or different companies may indicate the effectiveness of commission regulation.

Citizens sometimes insist that rates be the same over broad areas. However, such uniform rates may result in discrimination against communities with low-cost plants. Uniform rate structures do have the advantage, nevertheless, of being simple and easy to understand. Thus some discrimination may be tolerated in the interest of simplicity and harmony. The attitude of the public may be more important, where minor cost differentials exist, than an absolutely reasonable price based on cost of production.

The problem of determining fair utility rates. In order to understand the problems of commissions in determining fair utility rates, we need to understand some of the special conditions affecting certain utilities. Transportation companies, for example, operate under various degrees of direct competition and monopoly. Two railroads running between Chicago and New York may compete directly at some points. Each, however, operates in some territory in which the other does not. In such territory each railroad has a monopoly for its kind of service. Unless prices are regulated, the tendency will be for each railroad to charge lower rates at the competitive points than where a monopoly exists.

Furthermore, different types of carriers compete within the transportation field. For example, railroads encounter competition from motor trucks and busses, airplanes, and water carriers for freight and passenger service. In the absence of regulation such a situation may lead to destructive price competition.

It can be seen that commission regulation of all utility industries is concerned with two distinct problems: one is to prevent discrimination; another is to establish prices fair to consumers and yet high enough to allow these industries to provide adequate service.

The yardstick method of determining utility rates. The essence of this method of determining fair rates is for governmental units to own and operate certain utility plants in order to determine costs. When costs are ascertained, rates based on these costs can be compared with those charged by privately operated plants. It is assumed that prices charged

by governmental units are reasonable, and that private companies should offer service at similar rates.

The yardstick method has not actually been used by utility commissions as a basis for setting fair rates. It has, however, been strongly advocated by many writers. It is possible that some utility commissions may have been influenced by it where cost data on government-owned companies were available.

The yardstick method assumes that the cost of operating publicly owned utilities is a fair measure of what the cost of operating private utilities should be. This assumption requires careful examination. In the first place, utilities in different communities do not operate under identical conditions. Hence a fair rate in one area may be too high or too low elsewhere. Second, government-owned utilities may not compute their costs on the same basis as private companies. For example, a municipal plant may be built with public funds and may have no capital obligations. The owners of a private plant have invested capital which is entitled to a return. Therefore, a cost item under private operation may not be so regarded under public ownership. Depreciation policies also vary. The question of taxation is an important factor, since many publicly owned plants are either tax free or pay taxes based on income. Private operators, on the other hand, generally pay local taxes on the assessed value of their property. Such a tax may bear no relationship to income, nor will it vary as income changes. Often publicly owned plants are operated in conjunction with other municipal functions. Thus it is possible to shift some operating costs, such as billing customers and collecting revenue, to other municipal bureaus.

In the early 1930's the yardstick method of determining fair utility rates was given considerable publicity as a result of the creation of the Tennessee Valley Authority. When the TVA was established, one of the objectives set forth by its administrators was to determine the actual cost of producing electricity under efficient operation. It was assumed that plants, to function efficiently, must be operated close to capacity, and that it was the obligation of management to secure the volume of business that would make such capacity operation possible. Then the problem was to find the lowest possible cost per unit when plants are operated at greatest efficiency. Once this cost was determined, rates based on it could be used as the "yardstick" for measuring the reasonableness of rates charged by private operators.

Private operators objected to the yardstick rates determined by TVA. They contended that, since the authority is a public corporation, it can allocate certain overhead costs to suit its own purposes. Private operators objected also to the accounting methods used in ascertaining costs. Some costs of the TVA were allocated to flood control and to other projects. In contrast, private power companies must cover all costs in the rate charged for electric current.

Whatever the merits of the yardstick method of determining fair utility rates, it must be understood that at best such "yardsticks" merely show costs in certain plants under specific operating conditions. If the plant used as a yardstick is favorably located, cost will reflect this advantage. If it is not favorably located, this fact will also be reflected in costs. While any industry may learn much from experiments that seek carefully to analyze costs, it must be recognized that individual utilities operate under a variety of conditions. If cost of production is to be the basis for rate determination, consumers must pay, not an average price based on the costs of all plants producing the service, and not a yardstick price, but rather a rate based on the reasonable cost of producing the specific service used. To charge any other price is to discriminate between producers and between consumers. Thus, the yardstick method does not give the individual citizen service at a rate that reflects the actual cost incurred by the plant serving him.

The legal basis for determining fair utility rates. Since 1898, the courts have generally based their decisions with respect to commission procedure in determining rates upon the general formula enunciated by the Supreme Court in the case of *Smyth v. Ames.* In that case the Supreme Court held as follows:

> And in order to ascertain that (fair) value, the original cost of construction, the amount expended in permanent improvements, the amount and market value of its stocks and bonds, the present as compared with the original cost of construction, the probable earning capacity of the property under particular rates prescribed by statute, and the sum required to meet operating expenses, are all matters for consideration and must be given such weight as may be just and right in every case. We do not say that there may not be other matters to be regarded in estimating the value of the property. What the company is entitled to ask is a fair return upon the value of that which it employs in the public convenience.

> On the other hand, what the public is entitled to demand is that no more be exacted from it than the services are reasonably worth.

The formula as enunciated in 1898 has been considerably modified, but the basic theory still holds, namely, that producers should be reimbursed for their sacrifices and that consumers should receive services worth the price paid. The producer is warned that, while he is entitled to a fair return, he cannot charge more "than the services are reasonably worth." Even though prices, in some instances, may not be sufficiently high to cover all costs, it is recognized in general that all reasonable costs must be returned to operators of utilities. Otherwise they cannot continue to furnish service.

Once we agree that rates should cover reasonable costs, our next problem is to determine such costs. What items should a regulatory commission include in costs? It should be clear that an important cost factor is represented by the fixed capital employed by the utility. An electric utility may, for example, own its plant, its distribution lines, an office building in which is housed its personnel, various substations, trucks, and much other equipment. The first problem is to determine the value of the tangible property that is being devoted to the public service.

Value of property and plant. Property and plant devoted to providing service must be valued on a basis the courts will accept. The question therefore becomes, What bases of valuation will be agreeable to the courts? In general, the courts have given consideration to two main methods of determining the fair value of a public utility. One is original cost; the other is cost of reproduction.

Original cost may mean either historical cost, book cost, or cost that would have been incurred had capital been invested in the utility on a prudent basis. Historical cost means the cost of the original property plus additions and betterments, minus retirements. This method of estimating cost is often considered fair, since it covers actual expenditures made to bring the plant to its present operating condition.

Book cost represents the amounts which appear in the balance sheet of the utility company and which purport to represent the actual cost of the assets. If the records have been accurately kept, as is often the case under present uniform accounting systems, the book cost will be actual outlays. Book cost differs from historical cost only if, after being constructed, the property is sold to another company. Under these condi-

tions book cost reflects only the actual cost to present owners. This may be either more or less than the actual historical cost of construction.

Original cost based on prudent investment calls for the elimination of waste and extravagance from historical or book cost. It also requires, for rate-making purposes, the disregard of unnecessary property.

Advantages and disadvantages of the original-cost method. Those who favor the original-cost basis maintain that this method rewards utilities for actual money sacrifices made. They also point out that it has the practical advantage of simplicity. Once original cost has been found, adjustments can be made for any increases or decreases in plant. They further point out that original cost is a value basis which is stable, since it does not fluctuate with every change in prices.

On the other hand, it has often happened that original cost was difficult to determine because of the lack of adequate and reliable records. A second disadvantage of the original-cost method relates to changes in the price level. Prices after the Second World War reached levels higher than those prevailing in the late 1920's and the 1930's. Much utility property was built when the cost of construction and materials was lower than at present. Owners of public utilities insist that valuations should reflect changes in the price level. Otherwise the dollar values of utility properties will be out of line with other prices.

Reproduction cost. The cost-of-reproduction method of evaluating utility properties recognizes that changes in the price level must be considered. The cost of reproduction is the amount that would have to be expended at the present time to construct a plant similar in all respects to one now giving service.

Many difficulties arise in finding reproduction cost. A plant now in existence probably was built piecemeal, and its capacity increased as demand warranted. No one, knowing present needs, would build a plant similar to the one now in use. In any case, no one can really know what it would cost to build a plant like the present one without actually reproducing it. Estimates made by different construction firms would be almost certain to show wide variation. Furthermore, to make careful estimates would in itself involve considerable expense.

Advantages of using the cost-of-reproduction method. In spite of the fact that it is difficult to determine reproduction cost, this method has important advantages. Moreover, it may be the only method that can be used if adequate cost records are not available.

An advantage of reproduction cost is that, in periods of rapid price shifts, it would produce a rate base more in line with changes in the price level. If original cost is used, utility rates will lag behind other prices when the price level is increasing, and perhaps be too low to permit satisfactory service. If the price level decreases, rates for utility services may stay too high. Even when reproduction cost is not used as the primary basis for valuing utility properties, it may be a useful check on valuations based on original cost.

Disadvantages of the reproduction-cost method. So many arguments have been advanced against the use of reproduction cost that only a few can be mentioned here. The following will indicate the problems encountered when this method is used:

1. Reproduction cost can be established only on the basis of estimates.
2. A long and expensive procedure is required to make such estimates.
3. Reproduction cost ignores the amount of the actual investment in a property.
4. The argument that original cost cannot be satisfactorily determined is less valid than formerly because utilities have now been regulated for many years, and they have been required to keep accurate accounts.
5. Courts no longer require that reproduction cost be given primary consideration.

In view of these facts, we must conclude that reproduction cost is no longer as significant a factor as original cost. It should, however, be given some consideration as a supplementary method of estimating the value of the property of a public utility.

Procedure in Valuing Utilities

Physical property. Once a basis for finding value has been decided upon, what procedure must be followed? In practice, the value of the plant is found by inspecting the records of the company to discover actual costs incurred. Then the actual physical property is "spot checked" to determine whether the records are accurate. In other words, an inventory is taken to ascertain the amount of property used or useful. Once the physical items have been listed, it is a relatively simple matter to determine their value. If records have been accurately kept, the original cost can be found by a study of the records.

Intangibles. The problem which causes most difficulty is to determine the allowances to be made for intangible items. These represent costs not directly incurred in the construction of physical properties. Included among intangibles are such items as engineering costs, the expense of securing a franchise, city inspection costs, architects' fees, legal expenses involved in organizing, and promoters' fees. Other intangibles are good will, the value of the franchise, and going-concern value. Some of these intangibles can be estimated rather accurately. Others cannot be, so the determination of their value may lead to a great deal of argument.

Depreciation. Once the original cost of the tangible property has been found, it is necessary to determine its present value for rate-making purposes. No plant is entirely new, and an allowance must be made for depreciation. In seeking to determine depreciation, many problems develop. A utility should maintain its equipment so that it can function efficiently at all times. A question which arises is whether a building or a machine which is properly maintained is less valuable than a new piece of equipment. To put the question in simple form: Is a well-maintained house twenty-five years old worth less than a new house built exactly like it? The two houses will probably serve almost equally well as dwellings. However, the house that is twenty-five years old will require more maintenance, and it will therefore be worth somewhat less than the new house.

Such issues confront utility commissions dealing with depreciation. If a utility is regulated and has built up depreciation reserves under commission direction, the courts are likely to consider such reserves as a fair estimate of depreciation to be subtracted from cost in determining the present value of a property. Hence, to find present value, the reserves for depreciation are subtracted from the original cost. The remainder is employed as the rate base.

Setting Utility Rates

Finding the rate of return. Once the rate base has been ascertained, we must decide what rate of return the utility will be allowed to earn on this rate base. We shall discuss the various theories that have been presented to justify a higher or lower rate of return. It must be understood, however, that private property is entitled to compensation for its services. In general, the accepted basis for allowing a return is to

discover what rate of return other industries with reasonably similar characteristics are receiving. The rate of return allowed by utility commissions has gradually been lowered. One reason is that interest rates have declined. Also, utilities usually involve less risk than do other industries. Hence, investors are willing to purchase utility securities even though the return is below that which may be obtained elsewhere.

Determining the general rate level for the services. Once the rate base has been found and once a rate of return has been decided upon, the next step is to study operating expenses. This is now a relatively simple process, since most utilities are required to keep their books according to a uniform accounting system approved by the commission. Under such a system, comparisons of operating expenses may be made as between years. Moreover, operating costs of various companies may also be compared in order to determine whether a particular property is being operated with a reasonable degree of efficiency.

Once operating costs are ascertained, the commission can estimate the total economic costs that must be incurred to serve present customers. These total costs include a fair rate of return on the investment. When total economic costs have been found, it would be a simple matter for the commission to allow the company to divide costs by total output. This would give the average unit cost of serving the customers, and would determine the general rate level. If, then, each customer were charged on the basis of the amount used at the rate determined, the utility would be able to secure sufficient revenue to cover all of the costs of rendering the service. Later, however, we shall see that there are objections to charging all customers a flat rate per unit of service used. The elasticity of demand for a utility's service also must be weighed in establishing rates.

The first task of a public-utility commission is to determine whether the total revenue the utility is receiving is equal to, above, or below the total economic costs which have been incurred. If total revenue is above total costs, the rates must be lowered; if revenue is below costs, rates perhaps must be increased; if total revenue is just equal to costs, no general change in the rate level need be made.

The work of the commission, however, does not end when it has determined what the general rate level should be. It must consider the specific rates which should be charged to each class of customers in order to determine whether or not each group is paying its fair share of total costs.

This problem is rather involved and cannot be dealt with in detail here. However, certain principles discovered in the finding of specific rates are so significant to an understanding of our problem that we must take space to present them.

Specific rates. In order to understand the problem of finding specific rates, we shall use an example to illustrate how a fair and reasonable rate can be found on the basis of cost of production. Later we shall modify our illustration from the side of consumer demand. We shall employ as our illustration the electric industry, in which the pricing problem is less complicated than for some other utilities. This industry renders a service that cannot be stored. However, this service has a variety of uses, and some of these can bear much higher rates than others.[2] In this preliminary discussion we shall assume that it is possible to allocate all costs accurately.

The services rendered by electric utilities may, for the most part, be classified as residential, commercial, small or large industrial, and municipal, including street lighting. If the rates charged for each type of service are to be fair, the characteristics of each must be carefully studied.

Obviously, some customers use such a small amount of service that it does not pay the company to study the demand of each individual consumer. However, the requirements of a considerable number of users of a certain type may be studied with advantage. This is the practice usually followed, and as a result rates can be set for each class of consumer.

In order to understand the problems involved in setting electric rates, let us use a simple illustration. Electric power cannot be stored economically. If it is not consumed when produced it is wasted. Because of this fact the time at which consumers use current is of utmost significance. If all customers made their largest demands at the same time, it

[2] Where the importance or value of the service is high to the consumer, the full costs of rendering the service can always be charged. However, in some industries, especially the railroads, the value of the service in the transportation of certain goods is so low that full costs cannot be used in setting a price. In such instances public welfare becomes a significant factor in determining a rate, for the economy may not function efficiently if some goods are not transported because of high rates. Even if high rates do not keep such goods from moving, they may limit the area of the market. How far goods shall move and who shall or shall not be benefited, are serious questions. Railroad rates are therefore much more complicated than are electric rates.

is clear that the utility would need sufficient plant capacity to meet the total of the maximum demands of all customers. The problem of setting rates then would be relatively simple.

Let us suppose a commission finds that a certain electric utility, representing an investment of $300,000, has a capacity of 1,000 kilowatts. Suppose the commission estimates that a fair return is 10 per cent, or $30,000 per year. This includes a reasonable rate of return on the investment and an allowance for depreciation and other overhead expenses. How can this annual expense of $30,000 be divided among the customers so that each is paying only a fair and reasonable amount? It should be noted that the $30,000 referred to represents a fair return on the investment only. It does not include operating costs or any special cost that may arise in connection with giving service to a particular customer. We shall assume that the company under consideration classifies its customers into four groups only: (1) residential, (2) commercial, (3) industrial, and (4) street lighting. Assume further that in a given year the total demands of the different types of consumers at typical hours of the day are as follows.

Table 33. Requirements of Different Types of Customers, in Kilowatts *

	9.00 A.M.	*10.00 A.M.*	*5.00 P.M.*	*7.00 P.M.*
Residential.....	100	50	300	250
Commercial.....	350	100	275	450
Industrial.....	450	300	275	75
Street lighting...			100	100
Total.....	900	450	950	875

* A kilowatt, which is also designated kw, is a unit of power. It is equal to approximately 1.34 horsepower. Since electricity cannot be stored, any piece of equipment that uses electricity will require that a certain amount of energy be supplied by the plant at a given moment. Therefore the plant must have sufficient capacity to take care of simultaneous demands that are placed upon it. A kilowatt-hour, another term that will be used, refers to the amount of energy that a generator with a rated capacity of one kilowatt can produce in an hour. To get some idea of how much energy this is, the reader will recall that a lamp rated at 100 watts will consume only $\frac{1}{10}$ of a kilowatt-hour of electricity in an hour. Thus it would have to remain lighted for 10 hours to consume a kilowatt-hour of

Table 33 shows that the highest demands of the various types of customers are different, and also that their peak demands do not all come at the same time. The peak demands in the various uses are as follows:

Table 34. Period of Peak Demand

	Time	*Peak demand, kw*
Residential	5.00 P.M.	300
Commercial	7.00 P.M.	450
Industrial	9.00 A.M.	450
Street lighting	5.00 or 7.00 P.M.	100
Total peak demand		1,300

It can be seen that the sum of the peak demands is 1,300 kilowatts. However, Table 33 shows that at no time does the plant operate at a greater capacity than 950 kilowatts. Obviously if customers are charged on the basis of the sum of the peak demands for all groups, they will be paying a fair rate of return on a plant with a capacity of 1,300 kilowatts, when in reality the plant has only 1,000 kilowatts' capacity. On the other hand, if they are charged only for the demand when the plant is operating at its peak of 950 kilowatts, the company will receive no return for necessary stand-by equipment. Furthermore, if each class of customers is charged for its demand at the peak hour, namely 5:00 P.M., some customers will benefit greatly at the expense of others. This is true because some types of customers use comparatively little current when the plant is at its peak, while at other periods they use a large amount. Also, if rates are set on this basis, and if for any reason the peak hour of demand shifts, all rates will have to be changed because the relative demands of the different groups of customers will change.

To illustrate, suppose all industrial plants adopt the practice of closing before 5.00 P.M., so that the demand for electricity in plants is reduced from 275 to 75 kilowatts at this time. This will mean that the total demand at 5.00 P.M. will be reduced by 200 kilowatts, or to 750 kilowatts. However, the demand at 9.00 A.M. is 900 kilowatts. This will now represent the peak demand on the plant, and if each group of customers is charged on the basis of its demand at the peak hour, the

charges will now be allocated on the basis of the relative use of current shown in column 1 of Table 35.

Table 35. Shift of Peak to 9.00 A.M., in Kilowatts

	9.00 A.M.	*5.00 P.M.*
Residential	100	300
Commercial	350	275
Industrial	450	75
Street lighting		100
Total	900	750

Table 35 shows that residential customers will benefit greatly by the shift in peak demand, for they are now responsible for only 100 kilowatts of plant capacity, whereas when the peak was at 5.00 P.M., as shown in Table 33, they were responsible for 300 kilowatts. Other users also find their responsibilities changed.

Obviously some method must be found to divide in a fair and equitable manner the total costs incurred in serving the various users. The method commonly used is to consider the peak load of each group of customers as a base. The next step is to reduce the responsibility of each by the advantage gained because not all groups are using their peak amount of current at the same time.

How is this method actually applied? The procedure is as follows: The sum of the peak demands of all groups was found to be 1,300 kilowatts, but the peak demand on the plant was only 950 kilowatts. In other words, the greatest impact of demand on the plant was much less than 1,300 kilowatts. In order to be fair to all, a so-called diversity factor is found. This factor is used in making a compromise between the customer's actual peak and the impact of his use on the plant.

The diversity factor is found as follows: The total of the peak demands of all classes of users is divided by the peak demand on the plant. In this particular illustration we divide 1,300 by 950, thus obtaining a diversity factor of approximately 1.37. Having found the diversity factor, we can then find the demand on the plant for which each group of cus-

tomers is to be held responsible by dividing the diversity factor into the peak demand of the group. Table 36 shows the results of this procedure.

Table 36. Assessed Demand by Classes of Customers

	Peak, kw	*Diversity*	*Assessed demand, kw*
Residential.....	300	1.37 *	219
Commercial.....	450	1.37	328
Industrial.....	450	1.37	328
Street lighting...	100	1.37	73
Total.....	1,300		948

* The diversity is slightly less than 1.37; also, in the division we have used whole numbers to indicate assessed demand. That is why the total is slightly less than 950. However, this calculation is sufficiently close for our purposes.

Having established the responsibility of each group of customers, we must now determine how much each must pay for a kilowatt of assessed demand. A total of 950 kilowatts is the most current demanded at any one time, but since the plant has a capacity of only 1,000 kilowatts, the commission will undoubtedly allow the entire $30,000 as a legitimate expense, for the additional 50 kw capacity will represent only a reasonable margin of safety. The price, then, to be charged on an average to each customer per kilowatt of assessed demand is $30,000/950 kw or $31.58. This represents the average annual charge on each customer for his share of the payments necessary to yield a fair return on the investment in the plant. In this case, for simplicity, let us consider $32 per kilowatt of assessed demand a fair charge.

Since each class of customer benefits by diversity, residential customers would pay not for 300 kilowatts but only for 219 kilowatts at the rate of $32 per kilowatt of demand per year. Other classes of customers will benefit in similar fashion.

To this point, however, only one charge has been considered, namely, the demand charge, or the charge to the customer for the use of his portion of the plant. There are other charges to be considered. Someone must pay for the costs incurred in the actual operation of the plant.

Coal, labor, taxes, and other costs of this nature are considered as operating expenses. Because of the limitations of our discussion, we shall simply note that experience has demonstrated that operating costs do not vary greatly as output increases. Therefore we shall assume that the regulating commission has determined that a reasonable price for this portion of the service is 1 cent per kilowatt-hour used.

A third cost that must be covered is known as the customer cost. Expenses are incurred in billing customers, servicing meters, inspecting customers' premises, and rendering other services. These costs are separated from operating costs, because they tend to remain fairly constant per customer regardless of changes in the amount of current used. For our purposes, we shall assume that these costs amount to about $2 per customer per year.

We observe, then, that in finding a basis for determining upon fair prices, regulatory commissions take three kinds of cost into account, namely, demand cost, energy cost, and customer cost. If we now assume that the estimates presented are found to be fair and reasonable by the commission, the next step is to determine how much the individual customer will pay. We have seen how a price can be set which is based on costs and which also takes into account the specific amount of current used by each customer. Such a price is as fair to all as possible, and can be applied to every class of customer and to every use, provided only that cost is to be the basis for price determination. Such a rate is called a three-part rate, since it takes account of demand, energy, and customer costs.

However, prices based on a separation of demand, energy, and customer costs are difficult to understand. Individuals are used to paying one price which includes all costs. For example, suppose a customer enters a grocery store and asks the price of a can of peas. Suppose the grocer says, "I can only give you the price after a careful calculation of various factors. I must charge you 10 cents for overhead, 8 cents for the peas, and 5 cents as a cost of serving you, or a total of 23 cents." The customer protests and asks why, if the peas cost only 8 cents, she should pay 23 cents. The process of explaining these other charges to the customer undoubtedly would create complications, so to simplify matters the grocer simply puts a price of 23 cents on a can of peas and allocates the revenue to meet his various costs. To a large extent this same pro-

cedure is used in the utilities, modified only by the fact that a greater use leads to lower rates.

Let us see how it is possible for a utility company to establish a simple rate structure and still take account of demand, energy, and customer costs. We will start by assuming that all householders on the average have about the same number of appliances. The electric iron, refrigerator, toaster, fan, and radio are standard equipment. If this is true, the demand of any one residential customer will not vary greatly from that of another. We will now assume that the average peak demand per customer is 1.37 kilowatts. Since the diversity factor is 1.37, the assessed demand charge per customer on account of plant capacity is 1 kilowatt. We shall further assume that customers vary widely in the amount of current consumed. Let us consider the use of two customers, A and B. Customer A uses 1,000 kilowatt-hours of energy per year, while customer B uses 3,000 kilowatt-hours.

A correct charge, based on the three-part rate, will be:

Customer A

Demand charge (1 kw × $32)	$32
Energy charge (1,000 kw at 1 cent per kw-hr)	10
Yearly customer charge	2
Total yearly charge	$44

Average charge per kilowatt-hour is $44/1,000 or 4.4 cents.

Customer B

Demand charge (1 kw × $32)	$32
Energy charge (3,000 kw at 1 cent per kw-hr)	30
Customer charge	2
Total yearly charge	$64

Average yearly charge per kilowatt-hour used is $64/3,000 or 2.13 cents.

It is clear that if both customers are charged either 4.4 cents or 2.13 cents it will be fair only to one of them. In order to correct this difficulty and still use a rate based on the kilowatt-hours used, some com-

missions use a rate that is reduced with increased consumption. One such rate now used is as follows:

For the first	30 kilowatt-hours used per month	7 cents
The next	70 kilowatt-hours used per month	3 cents
The next	100 kilowatt-hours used per month	1 cent
All above	200 kilowatt-hours used per month	½ cent

Customer A uses 1,000 kilowatt-hours per year; however, since the rate is based on monthly consumption, the average consumption is approximately 83 kw-hr. Customer A will therefore be billed as follows:

For the first 30 kw-hr (7 cents per kw-hr)	$2.10
The next 53 kw-hr (3 cents per kw-hr)	1.59
Total monthly bill for 83 kw-hr	$3.69

Customer B uses 3,000 kw-hr per year or 250 kw-hr per month. His bill is as follows:

For the first 30 kw-hr (7 cents per kw-hr)	$2.10
The next 70 kw-hr (3 cents per kw-hr)	2.10
The next 100 kw-hr (1 cent per kw-hr)	1.00
The next 50 kw-hr (½ cent per kw-hr)	.25
Total monthly bill for 250 kw-hr	$5.45

The question now arises, Are these rates fair to both users? We discovered when we used the three-part rate that the average price customer A should pay is 4.4 cents per kilowatt-hour. Under the rate schedule above customer A pays $3.69 for 83 kw-hr or 4.4 cents per hour, while customer B, who under the three-part rate should pay 2.13 cents per kw-hr, will pay $5.45 for 250 kw-hr, or 2.18 cents per hour. Obviously a rate schedule is reasonably fair when charges to the various customers are so close to those obtained by using a three-part rate. Since the customer can better understand unit charges which decline according to a simple formula, it is better to use a schedule of this type.

Modifications of rates based on costs. To this point we have assumed the following:

1. All costs can be allocated to particular units of service and, in consequence, rate making can be based on costs.

2. The value or importance of the service to customers is in all uses

sufficient so that charging a price adequate to cover costs will not keep customers from using the service.

3. All customers, no matter when they use the service, will be charged for demand, energy, and customer costs.

We will now examine each of these three assumptions in some detail. Later we shall weigh the advantages of granting rate concessions to "off-peak" customers.

Difficulties involved in allocating costs. One of the most difficult of all public-utility problems is a proper allocation of costs. As was pointed out, most utilities produce one service. However, the conditions under which this service is used are so varied that costs incurred to provide one unit of the service may differ widely from those required for another. How, then, shall the cost of rendering the service be allocated among the various users?

We have pointed out that utility costs may be divided between fixed and operating costs. We may also divide all costs between those which can be directly allocated to the production of a unit of service and those which can be so allocated only indirectly. We recognize, for example, that if electricity is to be produced from coal a certain amount of that fuel is necessary for each unit produced. While the amount may vary within narrow limits, there is a direct relationship between the amount of coal used and the electricity produced. A certain amount of equipment, labor, and raw materials also can be directly allocated to the production of a unit of service. There are other costs, however, which either continue whether or not the plant is operating, or are impossible to allocate definitely to any particular unit of service.

In the transportation field, the difficulty of allocating costs can be demonstrated readily. To illustrate, let us consider the following question: How much does it cost to transport a passenger on a streetcar when the car is returning to the center of the city during the rush hour to pick up a new load of homeward-bound passengers? Obviously, the customer is securing a definite unit of service, but the streetcar must make the trip anyway. Under these conditions perhaps the only direct costs are those incurred in stopping and starting the car, since the schedule has already been established. If the price of the service is to be based on cost, should this passenger pay the same fare as those waiting to take the car, and for whom it is making a return trip?

Another example may aid in clarifying our problem. We noted that

freight and passengers are carried over the same tracks and often by the same engine or even in the same car. Various kinds of freight may also be carried in the same car or train. How shall cost be allocated between passengers and freight, or between the different kinds of freight?

It clearly is impossible in such cases to make a definite allocation of costs except on some arbitrary basis. Many costs of operating a railroad are inseparable and cannot be attributed to any particular type of service. Where this is true, any cost allocation must be arbitrary. However, some formula which can be applied in each case must be adopted. In some instances, the formula has been to consider all operating expenses as direct costs and all overhead expenses as indirect costs. Each class of customers is then charged at the same rates for operating expenses, but overhead is distributed on some arbitrary basis. This is the method used in our example of electricity rates.

For most utilities a very large proportion of costs are inseparable; it is impossible to base rates on cost except by the use of an arbitrary formula. This raises some question in regard to the fairness of the rates based on such formulas.

Value of the service as a factor in rate determination. Cost is not always the only factor to be taken into account in determining utility rates. In the famous *Smyth v. Ames* case the court stated: "What the company is entitled to ask is a fair return upon the value of that which it employs in the public convenience. On the other hand, *what the public is entitled to demand, is that no more is exacted from it than the services are reasonably worth.*" What is meant by this statement? Does it imply that under certain conditions a utility may be required to sell its services below their reasonable or fair cost?

The problem which is here presented deals with a concept known as "value of the service." This term is difficult to define, but it refers to the maximum price that individuals will pay for a reasonable amount of service. The concept of "value of the service" is closely related to the principle of "charging what the traffic will bear." This principle means charging customers all that they will pay for a certain amount of the service.

The monopolist, it will be recalled, uses class pricing when he can. He attempts to divide his customers into groups, and he charges each group the price that will maximize his net income from that group. This results in a price based on "value of the service," and is known as "charging what the traffic will bear."

In the early history of railroading and of other utilities, rates often were based on a policy of charging what the traffic would bear. This caused great dissatisfaction, for often such prices were unreasonably high. More annoying to the public, however, was the fact that there was much discrimination between different types of users of a service and between individual business concerns.

It is now almost universally agreed that *if it can be determined that the value of the service is above the cost of service, the cost should determine the rate level.* Suppose, however, as is so often the case, that the value of the service is below full cost. Shall rates still be based on cost? And if not, on what shall they be based? It must be understood that if the price of a service is above its value, consumers will greatly curtail their use of it, or even refuse to use it at all. As a result, the utility may have excess capacity.

Though there are many uses for all of our utility services, there is perhaps no use which is absolutely indispensable. Electricity for lighting is highly desirable, but its use for this purpose would be curtailed if the price were increased enough, no matter what inconvenience might result. Many utility services can be dispensed with even more easily. Because of competition, actual or potential, a utility cannot charge any price it desires. In many cases charging what the traffic will bear does not produce a price much above the full costs of providing service.

Suppose, however, that the value of the service is below the full cost. Shall the utility provide it below cost? If so, what method shall be used to determine the price? If some service sells below its full estimated costs, the utility must charge more than full costs for other services. Technically, this is discrimination.

As a practical matter, however, a utility which renders many services may find it advantageous, in order to maintain production, to sell some of its services below full costs. Therefore, when a utility commission is considering whether certain rates are reasonable, it should employ the following procedure: (1) Discover whether the total return received by the utility is above or below a reasonable amount. (2) Study specific rates to see that there is no discrimination between consumers using identical services. (3) Set a floor, or minimum price, below which no services of the utility can be sold. Within these requirements the utility should be free to suggest the rates which it wishes to charge.

The determination of a floor price below which the utility may not

sell its service requires examination. We have seen that where companies have huge fixed investments it is good economics to utilize the plant as near to capacity as possible. It is common practice, therefore, where unused plant capacity is available, to estimate the cost of additional service without considering the overhead costs of maintaining the plant. As a result, service can be offered profitably at any price above the out-of-pocket costs of producing it.

Overhead or fixed costs of a plant go on whether it produces or not. Any increase in output which utilizes idle plant capacity increases direct costs only. If the revenue from the additional output more than covers these direct costs, the excess will help cover overhead costs or will increase profits.

If a utility sells a service at less than the direct cost, it will incur a loss on that service. However, might there not be cases where a commission would be justified in requiring a utility to provide a service at a loss if the public welfare were promoted?

Often political considerations complicate rate making. Suppose, for example, California orange growers wish to expand their markets but find they cannot enter certain markets because of high freight rates. Furthermore, suppose California orange growers will enter into greater competition with Florida orange growers if they expand their markets. We will assume that there is no difference between California and Florida oranges, so that the only factor preventing either group from expanding its market is shipping costs. Assume that freight rates are reduced in a way that will favor California growers. Have not the Florida growers a right to protest? And if they do, what basis shall be used to determine whether the new rate formula is fair and reasonable?

Again, suppose it is felt that the industrialization of a certain section will promote the public welfare. This area, we will assume, has been unable to attract industries because of the distance from central markets. If freight rates are the main factor in preventing this industrialization, should they not be lowered? Should the railroads bear the loss if the new rates do not return an income sufficient to cover out-of-pocket costs.[3]

[3] Out-of-pocket costs refer to the specific expenses incurred in giving a specific service. Thus, if a railroad runs an excursion, the out-of-pocket costs would represent only the extra coal, labor, and operating expenses incurred for that particular excursion. Not included are such items as maintenance, depreciation, or any other overhead costs.

Or should some other section be required to pay higher rates? Many other examples might be cited to illustrate the political considerations which often have to be taken into account in the setting of utility rates.

Price concessions to off-peak users. Another problem in pricing utility services is what to charge the so-called "off-peak" customer. This customer uses the service when those responsible for capacity do not require it. The Sunday railroad excursion is an example of off-peak use. Equipment is available and the tracks are clear. Aside from labor costs and fuel, any income is profit because only operating costs must be considered.

Every utility has some off-peak users. The usual policy is to charge these users a rate based only on operating and customer charges plus a nominal amount for overhead. This practice is common when a low rate is necessary to induce the off-peak customer to use the service at all. As long as all off-peak users are charged according to the same formula, this is fair. These customers also benefit the regular users by contributing something toward fixed costs.

Criticisms of commission regulation of utility rates. A mixture of economic and political considerations has caused much criticism of commission regulation. Most critics have maintained either (1) that commissions have favored the public at the expense of the utilities, or (2) that they have favored the utilities at the expense of the public.

While these issues are significant, they do not go to the heart of the problem from an economic point of view. If the general welfare is best promoted by flexible prices, commission regulation may be criticized for failing to secure as much flexibility as might be possible. In fact, commissions may justly be accused of preventing utilities from making rate changes as conditions warrant. Too often in periods of rising prices, utilities have been prevented by commissions from increasing their rates to meet increased costs. Again, in periods of decreasing prices, rates have been allowed to remain at high levels even when costs have fallen. Utility rates thus have tended to remain inflexible as other prices changed.

Another criticism of commission regulation is that utilities have not been allowed to adjust their rates to prevent loss of business to competitors. Since value of service is now recognized as a factor in rate making, and since competition affects the value of the service, it appears that utilities should be allowed to adjust rates whenever competitive conditions change. They must not engage in unfair discrimination, of

course, and they should charge rates somewhat above out-of-pocket costs.

Still another criticism of commission regulation arises from the lack of coordination among regulating agencies. Utility rates are regulated by one commission. Another commission taxes them, and a third regulates many of their labor policies. These bodies do not consult with each other in order to formulate a common policy. As a result, the labor board may decide that increases in wages shall be given and the tax board may increase taxes, but the rate-fixing commission may insist on "holding the line" on prices, or even may require a reduction. Under these conditions utilities find it difficult to operate efficiently. In fact, they are so restricted that much of the incentive for increased efficiency is lost. Why, for example, should railroad management try to increase efficiency when either labor will demand higher wages, taxes will be raised, or the Interstate Commerce Commission will seek to reduce rates?

A study of rate regulation, therefore, indicates not only that it is a complicated process but also that a utility may be prevented from operating fully in the public interest by the many conflicting forces which influence rate making. We learned, moreover, that utility pricing policies tend to make rates inflexible, and that management tends to be stifled by divergent regulatory policies. Because of such unfortunate practices, elements of instability are constantly present in our economy. They often affect other industries adversely.

Price-control problems under government ownership. Many critics of commission regulation insist that we will not get fair rates until the government owns and operates the utilities. However, the difficult problems encountered in regulating privately owned utilities would still exist under public ownership. The task of cost allocation would be just as difficult, and some prices would have to be below average total unit cost if value of service was considered. Labor relationships likewise would remain a problem, as would also the finding of efficient management.

Would prices under government ownership be flexible enough to permit quick adjustment to changing conditions? The answer is that they probably would not be. Under government ownership management usually must operate according to specific rules and regulations. Political pressures often are so great that price changes cannot be made even when needed. Whatever may be the merits of public ownership, and in some cases it has merits, price flexibility is usually not one of them.

Should utilities be given more control over their rates? A proposal urged by some writers is that commissions be denied the power to control rates and that this function be left to utility management. Under such a system a public-utility commission would have two primary functions in regard to rates. First, it would be concerned with questions involving discrimination. Second, it would require that the over-all return to a utility is not excessive. The contention is that prices would reflect changing conditions if the utility were allowed to change its prices upon sufficient notice whenever conditions warranted. A rate change might be justified by a change in the price level or by an increase in competition.

This proposal has much in its favor. Prices would be more flexible. The utility could take on new business which it cannot secure now because of lack of control over its rates. Also, it would not be forced to stand idly by, as at present, and allow some other industry to take its business. There is one danger, however, and that is that established utilities might prevent the development of new types of competition through their rate policies. For example, if railroads had been free to set competitive rates when motor transportation was in its infancy, would motor transportation have been able to develop to its present importance?

Advantages of basing the rate of return on a sliding scale. Another proposal for improving our system of rate regulation is designed primarily to provide greater incentives to efficiency. This is the so-called "sliding scale" plan. In some communities utilities are allowed to benefit from increasing efficiency. If they reduce their rates they are allowed to earn a higher rate of return. In Washington, D.C., this provision produced remarkable results, for electric rates there were among the lowest in the country while the earnings of the utility were among the highest. Any program of this nature should be encouraged.

Combination as a method of increasing the efficiency of utilities. It has often been suggested that the efficiency of some utilities, especially the railroads, could be increased by combining them into larger systems. This would mean that all utilities giving the same general kind of service in a large area would operate as a unit instead of competing. It is generally agreed that competition in the utility field leads to duplication and to uneconomical use of service. Railroads and motor-truck lines, for example, operate over the same routes, and each industry may have excess capacity. However, under some conditions motor transport is more eco-

nomical than railroads. Under other conditions the reverse is true. Why not, then, combine the two services and use each where most economical? Gas and electric companies might also be merged to advantage, as might streetcars and city bus lines.

The fact that many such mergers have been brought about indicates they have economic advantages. However, combination has certain weaknesses. First, there is the danger that management will not introduce new types of service as it becomes available. Gas producers, for example, fought the introduction of electricity in the early days. There is also danger that rates would become inflexible and incentive would be stifled if one group controlled all ways of providing a service.

Our survey of methods for improving rate regulation and thereby the efficiency of utilities reveals that all possess disadvantages. It seems clear, however, that commission regulation would be more successful if management were given more freedom in determining rates, and could experiment more freely. Also, there is much to be said for providing greater incentive to utility managements by allowing a higher rate of return when it can be shown that there has been an increase in efficiency. Greater flexibility of utility rates should increase the stability and efficiency of the entire economy.

Conclusions

Our study of pricing problems as found in the public utilities was intended to answer this basic question: *Can price control, similar to that employed in the public utilities, be used to stabilize those areas in our economy in which fair competitive methods cannot be used effectively?*

In order to find an answer, three other questions were asked, namely: (1) Has regulation of the public utilities led to progress and stability in these industries? (2) If so, should this kind of regulation be extended to other industries? (3) If not, what proposals can be made to improve the methods of control now used to regulate public utilities?

In answer to the first question, our conclusion is that price control has not been an unmitigated success in the utility industries. In the main prices have become inflexible, and in consequence often have not reflected true demand-and-supply relationships. This has led to much instability and waste within these industries. As a result utility services have not been extended to their optimum level. Mostly because of price

inflexibility some utilities, especially the transport utilities, have been in distress over long periods. An industry in distress always promotes instability in the economy and retards economic progress.

The conclusions we have reached aid us in answering the second question, namely, Should this kind of regulation be extended to other industries? It is obvious from our previous discussion that our answer must be no. We then come to the third question: What proposals can be made to improve the methods of control now being used to regulate public utilities? We have answered this question by pointing to the need for allowing management freedom in setting rates in order to provide for greater flexibility. It is our contention that the primary function of a regulatory agency is to prevent unreasonable discrimination and unreasonable profits. It is not necessary, and not desirable, that a utility commission should fix the precise rate for each type of service. In these days of competition by substitute services, monopoly power, even in the utilities, cannot be asserted to any great degree except by discriminatory practices. If unfair discrimination is eliminated, and if rewards are given for efficiency, the utilities under commission control will contribute to the general welfare.

Our criticism of regulation, however, should not be taken to mean that governmental units should not regulate industries. We realize that certain industries have to be regulated, and that in our complex society this regulation may have to be extended. Already governmental units by regulating these industries have done much to further the public welfare. What we need now is a careful evaluation of the methods and policies used by regulatory agencies, so that regulation can make the greatest possible contribution to the general welfare. Our survey seems to indicate that the extension of price controls of the type now employed by regulatory bodies is not the answer to securing either economic progress or economic stability.

We agree with a noted economist who states:

> The moral, it seems to me, is pretty clear. Regulation has a job to do within a limited field, and it can reasonably be held to a competent performance of that job. It should not be held for more. If we demand more within the field we shall have to supplement regulation with other forces, public projects, for example, or subsidies. Beyond this field, in the general industrial area where the effectiveness of what remains of competition is being increasingly questioned as a control device, the visibility is low.

But if the history of state regulation for the past fifteen (or forty) years has any meaning, the effectiveness of competition will have to be badly impaired indeed—beyond any possibility of revival—before we can accept with eagerness a program to supplant it with "fair-return" regulations, or even our long awaited "fair return on prudent investment." [4]

Review Questions

1. Why is a study of public-utility regulation of value to us in our search for ways of achieving economic stability and economic progress?
2. Name several characteristics of public utilities.
3. State several alternative methods of regulating public-utility rates, and point out difficulties under each method.
4. Why is price control such an important factor in the regulation of public utilities?
5. Describe the yardstick method of determining fair rates, and point out its advantages and weaknesses.
6. Outline the main steps which must be taken when public-utility rates are to be fixed.
7. State the formula advanced in the case of *Smyth v. Ames*. Why is this formula significant?
8. State the advantages and disadvantages of original cost as a basis for determining the value of a utility property. What are the advantages and disadvantages of using reproduction cost?
9. How would you find a fair rate of return? Why is it necessary to find a fair rate?
10. Define the difference between a general rate level and a specific rate. Why does the latter have to be determined?
11. Define value of service, kilowatt, instantaneous demand, kilowatt-hour, coincident demands, individual peak demands, diversity factor, assessed demand, three-part rate.
12. What assumptions must be made if rates are to be based on costs?
13. What is an "off-peak" customer?

[4] Lewis, Ben W., "Recent Developments in Public Utility Regulation," *American Economic Review*, No. 2, p. 404, May, 1946.

14. If there is no way of determining just what costs have been incurred in rendering any specific service, what practical method may be adopted in allocating such costs?

15. How are rates determined if the value of service is below the total cost of the service?

16. What is meant by the term, "charging what the traffic will bear"?

17. Why should a floor be set, below which rates charged by any utility must not go? How would you determine what the "floor price" should be?

18. What political considerations must be taken into account when rates are being determined?

19. What main criticisms may be advanced against the pricing policies used by commissions in regulating utilities?

20. Would pricing problems be solved if utilities were publicly owned? Why or why not?

21. What suggestions have been advanced which might lead to more flexibility in public-utility rates?

22. What would be the function of a commission if it were relieved of the duty of fixing specific rates?

23. State the advantages of the sliding-scale method of providing for flexible rates. Does it have disadvantages?

24. Would allowing combinations of similar utilities aid in solving the problem of making prices more flexible?

25. Would it be desirable to extend to other industries the price-control methods employed by utility commissions?

Problems

1. Using the data presented in the chapter:

a. How would you determine the amount that a customer should pay for electricity under the three-part rate if he had a peak demand of 3 kilowatts, and an annual use of 4,000 kilowatt-hours?

b. Compute his bill using the alternative declining-rate schedule.

c. Is this customer being discriminated against under the declining-rate schedule? Why or why not? Is he being discriminated against under the three-part rate? Why or why not?

2. Suppose an off-peak customer uses 4,000 kilowatt-hours per year. What is the lowest rate the utility could afford to charge him?

3. You are asked to make a valuation of the building in which your economics class meets. Indicate how you would proceed to find original cost, reproduction cost, fair value.

4. Suppose you were asked to suggest ways to make utility rates more flexible. What proposals would you make? Why? Do any of your proposals involve difficulties?

5. Prior to World War II, one authority maintained that the entire transport industry was in distress. This included railroads, motor transport, water transport, and aviation. It was maintained that these industries all suffered because not one of them was allowed to change its rules to conform to new conditions. Do you think the same situation prevails at present? Explain carefully. If you do, what do you suggest to aid all of these competing industries?

Suggested Readings

Bye, Raymond T., and William W. Hewett: "Applied Economics," F. S. Crofts & Co., New York, 1947, Chap. 5.

Patterson, S. Howard, and Karl W. H. Scholz: "Economic Problems of Modern Life," McGraw-Hill Book Company, Inc., New York, 1948, Chap. 24.

Rohlfing, Charles C., Edward W. Carter, Bradford W. West, and John G. Hervey: "Business and Government," Foundation Press, Brooklyn, N. Y., 1949, Chap. 8.

Thompson, C. W., and Wendell Smith: "Public Utility Economics," McGraw-Hill Book Company, Inc., New York, 1941.

Troxel, Emery: "Economics of Public Utilities," Rinehart & Company, Inc., New York, 1947.

12. Direct Price Control and Economic Stabilization

The analysis in the two preceding chapters concerned two methods of securing a reasonable degree of economic stability and economic progress. Chapter 10 considered the enforcement of free and fair competition. Chapter 11 surveyed the possibility of enlarging and extending the type of regulation now applied to the public utilities. In each of these chapters, certain obstacles were noted which make our goals difficult to achieve.

Critics who believe that neither of these solutions is adequate often favor a third alternative, namely, direct price controls similar to those applied during the war to a great variety of commodities. They suggest that direct controls in those areas will be necessary where stability cannot be attained by indirect controls. We shall discover later that there are many kinds of direct controls, and that in general the imposition of one kind inevitably requires the imposition of others. In this chapter, however, we shall limit the discussion to proposals for imposing direct price controls upon certain industries. Our problem is: *Can direct price controls be imposed in certain industries in order to stabilize them without causing other areas of the economy to become more unstable, and without stifling progress?*

Direct versus indirect price controls. The problems caused by price changes were discussed in several previous chapters. We discovered that in periods of emergency prices not only fluctuate widely, but also tend to lose their normal relationships. This creates hardship, because certain industries receive tremendous profits while others make no profits or take great losses. These maladjusted price relationships, combined with wide fluctuations in the price level, make the economy very unstable.

In consequence, methods of preventing such price distortions have been widely sought.

In times of peace, reliance is usually placed on indirect price controls. We have studied the use of fiscal, banking, and credit controls for increasing stability. Other indirect devices are the regulation of imports of gold and silver, the regulation of exports or imports of goods and services, the imposition of exchange controls, and the regulation of security and commodity markets. Some of these methods may be reasonably successful under normal conditions. However, in time of war or other emergency, the economy tends to become so unstable that direct price controls are required to prevent severe maladjustments.

In this chapter we shall study some of the direct methods of price control which have been used both in peace and war. The immediate purpose of such controls is to prevent prices from reflecting true relationships between supply and demand. Among the methods used for determining the level at which controlled prices should be fixed are the following: (1) setting prices based on "parity"; (2) setting prices based on bulk-line costs; and (3) setting prices which cover cost and a fixed percentage of profit.

The normal role of prices. Before the many aspects of direct price control are considered, the functions which prices normally perform must be carefully reviewed. As the Committee on Recent Economic Changes pointed out, prices and price relationships almost completely dominate the economic life of a nation. In their ceaseless changes and readjustments, they stimulate or retard industrial and commercial life.[1] We have seen that in a competitive system and under normal conditions, prices change with variations in demand and supply. Further, changes in price affect both consumption and production. For example, an increase in price tends to call forth more goods and services. Again, price changes lead to shifts of demand from one commodity to another. Moreover, whenever increases or decreases in demand or supply are reflected in price changes, these changes affect the ways in which goods and services are used. Price changes also affect the incomes of those who furnish the factors of production.

In a free, competitive market, the actions of unorganized buyers and

[1] MILLS, FREDERICK C., "Prices in Recession and Recovery," National Bureau of Economic Research, New York, 1936, Introduction, p. v.

sellers will tend to set a price that brings supply and demand into equilibrium. Such a price leads to economic stability. On the other hand, any method of setting prices which does not properly equate supply and demand will eventually lead to disequilibrium and instability.

We have observed that in our complex economy there are many forces which may prevent the price of goods and services from reaching a point which will equate supply and demand. Some buyers and sellers operate on such a large scale that they can prevent price adjustments. Labor unions often insist that hourly wage rates be maintained even if the demand for labor declines. Certain pressure groups, like the organized farmers, may induce government to purchase surpluses and thus prevent prices from being adjusted to changes in supply and demand.

Even when producers are not monopolists, they may exert considerable control over their prices. Manufacturers frequently set the retail price of their products. Prices determined by producers are often called "administered prices." We observe that they may also be called "sticky" prices, since they do not respond quickly or freely to changes in supply and demand.

Economic stability is threatened whenever producers can prevent prices from making proper adjustments. Suppose that a country is confronted by war or depression. Under such circumstances, uncontrolled prices will respond immediately to changed conditions while sticky prices will not. As a result, violent price distortions may affect the economy so seriously that the state must act to protect producers and consumers, or to encourage the production of certain goods and discourage the production of others. Before prices are controlled the purpose of such control should be made clear and the probable consequences carefully considered. It must be evident that when a price is set by law, the normal adjustment of supply to demand may be prevented. The problem then becomes: Will the net effect of price control be to encourage stability or to create greater instability?

History of Price Control

The legality of price controls. Whenever direct price control is discussed, one question which arises is whether it is legal. Today, little doubt remains that the state has the right to impose direct price controls

in periods of emergency, although there is some doubt as to what, other than war, creates an emergency sufficiently serious to warrant the imposition of such controls.

There is long historical precedent to bolster the argument that the government can control prices in emergencies. In Chap. 1 it was pointed out that men in all ages, in order to secure some semblance of economic security, were willing to submit to economic controls; and we can rest assured that direct price control is one of the devices that they were willing to accept in emergencies.

Price controls in early times. History is replete with early examples of direct price control. Such controls are found, for example, in Greek city life thousands of years ago. In the later days of the Roman Empire the emperor found it necessary to control the prices of as many as 800 commodities. Because of the debasement of the currency and high taxes, farmers were reluctant to raise food. Hence prices rose rapidly. To protect the poorer classes, the emperor fixed the prices of many commodities. However, this experiment in direct price control was not successful because low prices discouraged production, and shortages became more acute than ever.

During the Middle Ages the church sought to influence prices by introducing a concept called "fair price." The church tried to determine a price for every commodity based on its actual cost of production plus a fair profit. However, this attempt at control was not successful, for the church was not able to enforce the "fair" price when demand outran supply.

In early medieval cities direct price controls were often imposed. Also many of the rules and regulations applied during the period of mercantilism may be placed in this category.

Price control in the United States. Early in the history of the United States some attempts were made to control prices. However, except for regulation of utility rates, none of these attempts had much effect prior to the First World War. During the Revolutionary War, the Continental Congress urged states to control wages and prices. Again, during the Civil War direct price controls were imposed, but only on commodities bought by the government under contract.

Although direct price controls were little used before the First World War, demands for their employment were not uncommon. In every

emergency period some groups petitioned for price controls. Thus, in the 1870's, when farm prices were declining rapidly, farm organizations demanded the control of railroad rates. In this same period, some states passed laws giving the legislature the power to regulate prices in any industry which was found to be "affected with the public interest." Elevators, insurance companies, stockyards, and some other enterprises were included in this classification. Prior to the First World War it was first necessary to classify an industry as a public utility if direct price controls were to be applied. If this classification was accepted by the courts, state legislatures could then directly control prices.

Price controls in the First World War. When the war began in Europe in 1914, it soon affected the American economy. All of the warring nations came to the United States to purchase food and materials. As a result of competitive bidding, the prices of certain goods increased greatly and price relationships became distorted. In order to prevent profiteering, Congress in 1916 imposed a special tax on profits. However, this tax did not keep prices down, and when the United States entered the war in 1917, many people were urging the imposition of direct price controls.

In spite of the fact that prices were rising rapidly, it took several months to get the price-control program under way. Certain basic decisions were necessary before a program could be formulated. Among the questions raised were: Should all competitive bidding be prohibited? What restrictions should be placed on civilian uses of certain goods? Should the government pay lower prices or the same prices as civilians when purchasing similar goods? What methods should be used to regulate the prices of civilian goods? These questions had to be carefully considered before a program could be launched.

When these questions were answered, several boards were created to regulate prices. Among the most important were the War Industries Board, the War Trade Board, the Food Administration, and the Fuel Administration.

Types of Control Used in the First World War

One of the most difficult problems confronting the government when buying war materials is to agree with producers on price. In most cases the manufacturer is producing according to specifications. Frequently the commodity being produced is not one commonly manufactured. More-

over, the need for the product is often so urgent that the government cannot wait to determine who can supply it at the lowest cost. It must buy from all who can produce it at any cost.

In order to secure war materials during the First World War the government made individual contracts with producers. Payment was based on cost plus a specified percentage of profit. However, contractors soon discovered that under this arrangement profits could be increased by allowing costs to increase. A few took advantage of this, and such grave abuses arose that the method was modified. Management was given either a flat compensation, or a fee plus a bonus, for any savings effected.

Standardized commodities. Where commodities could be standardized the government, rather than bargain with each single producer, often set a price and required all producers to accept orders at that price. Since many commodities could be standardized, this method appeared to be relatively simple. In practice, however, many difficulties were encountered.

Bulk-line pricing. One problem which arose in pricing standardized commodities was to set the price high enough to obtain the required output. Costs of production, however, vary greatly. If prices are set sufficiently high to compensate a high-cost producer, those with low costs will secure tremendous profits.

In order to prevent profits from becoming too great, some of the price-fixing agencies adopted the "bulk-line" cost method. To ascertain bulk-line cost, the Federal Trade Commission collected average cost data from all firms and required that each determine the capacity of his plant. These data were then arrayed in order from the lowest to the highest cost. The capacity of each producer was also listed. A cost figure was then determined which would at least cover the cost of production of from 80 to 90 per cent of the output. To bulk-line cost a reasonable profit was added, and this became the price. This meant, of course, that low-cost producers would receive a price much above their costs, while producers with the highest costs might lose money. An example may aid in making this point clear. In 1918 the Federal Trade Commission found that companies producing beehive coke had the following costs: [2]

[2] HARDY, CHARLES O., "Wartime Control of Prices," Brookings Institution, Washington, D.C., 1940, p. 63.

Table 37. Costs of Beehive Coke Producers

Percentage of Output	*Cost per Ton*
Up to 60	$2.93–$ 4.44
60– 70	4.44– 4.99
70– 80	4.99– 5.44
80– 90	5.44– 6.47
90–100	6.47– 11.45

The price-fixing agency set the price at $6 a ton. This covered the cost of production of between 80 and 90 per cent of total output. The prices of many other commodities were established in a similar manner.

During and after the war much discussion arose as to the relative merits of bulk-line and cost-plus pricing. Many economists favored bulk-line. Yet if bulk-line is considered on its merits alone it cannot be highly commended. Only high prices will cover the average costs of producing 80 per cent of output, and low-cost producers stand to make great profits. Advocates of cost-plus pricing contend that each producer should sell his output to the government in wartime at a price that covers his costs, regardless of what other producers are securing. They argue that cost-plus is superior to bulk-line, since one purpose of price fixing is to prevent profiteering.

It is contended, however, by proponents of the bulk-line principle that a one-price system, which permits more profit as costs decrease, conserves resources and increases efficiency.

Contract pricing. While recognizing the advantages of bulk-line price, critics claimed that in many cases prices could be kept lower by making contracts with producers for a definite period, and then revising these contracts as conditions required. This was the method used in regulating the prices of iron, steel, copper, and lumber. Contracts were based on peacetime prices, plus certain increases to allow for the rise in costs since the beginning of the war.

Critics insisted that production was discouraged where contract prices were too low. When they were placed too high, enormous profits accrued.

Price control of commodities for civilian use. In time of war the question arises whether the government shall pay the same prices that are charged civilians. A main purpose of regulating prices is to keep down the cost of fighting a war. However, this is not the only reason for regulating prices. Demand is increased during wartime because of

higher incomes and full employment. Supply is reduced as production for civilians is curtailed to permit the manufacture of military goods. Unless prices are regulated, some will profit greatly at the expense of others. It is to prevent such inequities that price regulation must be employed.

We cannot discuss in detail the methods used by the Food and Fuel Administrations in regulating prices during the First World War. However, the government used price ceilings to prevent certain prices from going too high, and minimum prices to encourage production of some commodities. Contract or bulk-line prices were employed in the case of still other commodities. Maximum prices were set for wheat, and minimum prices were guaranteed to wheat growers and to producers of pork. Prices of sugar were largely controlled by contract, while the price of coal was determined on the bulk-line principle.

Price control of processors and retail dealers. While producers of foodstuffs were not subjected to direct price controls except for a maximum wheat price, price control was used to regulate the prices at which processors, wholesalers, and retailers sold their goods. Licenses were issued to large wholesalers and retailers, and they were required to sell at a profit margin not greater than they had received at some specified period in the recent past. In some cases, processors were allowed a fixed margin per unit of output. In others they were limited to a certain profit per dollar invested. Whatever the method used, the purpose was the same, namely, to prevent dealers or processors from securing unwarranted profits because of the war.

Together with attempts to regulate profits by the license method, the government employed other devices to hold down prices. Speculation was discouraged, imports were encouraged, various rationing devices such as wheatless, meatless, and heatless days were instituted. Grocers were also required to sell wheat substitutes whenever they sold wheat, and millers had to use substitutes for wheat in making flour.

Sufficient has been said to indicate the general program instituted in the First World War. Many mistakes were made, for the country had no experience with direct price control on such a wide scale. However, the nation learned many lessons which were put to good use later.

Rent control. To this point in the discussion no mention has been made of rent controls. Because of the importance of this problem in our own time, some consideration should be given to the method used during

the First World War. While there was a great deal of agitation for rent control, the actual need was not as great then as in the Second World War. In fact, except in certain congested districts, there was an adequate supply of housing during the First World War, and rents did not increase greatly. In those areas where housing shortages were acute, it was necessary to impose rent controls. This problem was handled through state and local legislation.

The Federal government enacted a rent law only for the District of Columbia. Under this law rents could not be increased without sanction of the rent administrator. This general pattern was followed in cities, and in all areas where direct rent controls were imposed.

In some areas rent authorities used such indirect devices as threats to raise taxes, or to withhold coal or fuel, if rents were increased. Sometimes courts delayed action indefinitely on eviction suits. Also, landlords were asked to keep rents down on patriotic grounds. These methods were reasonably effective.

Housing shortages became acute, however, when the war was over. Yet in spite of a great rise of urban rents in the early 1920's, the emergency did not appear to be sufficiently critical to continue rent control or to impose it in new areas.

An appraisal of price control in the First World War. Our brief discussion of controls used during the First World War is inadequate for an evaluation of the effects of price control. It is apparent, however, that during a war citizens will submit to price control. Producers also will cooperate. Thus the first obstacle to price control is eliminated.

However, the devices used to regulate prices must be carefully selected. Government purchases must be undertaken by a centralized agency to prevent competitive bidding. Minimum price guarantees are an effective method of stimulating production. But direct price controls to hold down prices can only work if rationing is also used.

The main difficulties encountered in imposing price controls during the First World War were (1) failure to centralize controls in one agency; (2) imposing price controls too late; (3) the use of faulty methods which resulted in too high prices; (4) failure of other agencies to cooperate with those charged with regulating prices. For example, fiscal and tax policies were employed which tended to raise prices rather than keep them down.

We have summarized the main advantages and disadvantages of direct

price control as it was applied during the First World War. While many agree that price control was reasonably effective, it did not prevent high profits. In fact, demands arose after the war that Congress make it impossible for anyone in the future to "profit from slaughter." Cost-plus contracts were especially criticized, and demands arose that this form of contract be abolished.

In the years after the war both political parties included planks in their platforms designed to control war profits. For example, the 1924 Republican platform contained this provision: "[In time of war] the president [shall] be empowered to draft such material resources and such services as may be required, and to stabilize prices of services and essential commodities, whether utilized in actual warfare or in private activity."

Price Control from 1920 to 1940

Why price controls were demanded by many people. The experiences with price control during the First World War were not forgotten. Although nearly all these controls were dropped immediately after Armistice Day, many leaders did not forget that direct price controls had been reasonably effective during the war. They could see no reason why similar policies might not be used in time of peace. It is not strange, therefore, that whenever the economy was in trouble many insisted that stability could be attained only by the use of price controls.

During the 1920's the issue of price control was raised. Those who viewed the plight of distressed industries such as agriculture, coal, and milk, studied price-control experiments made in other countries. England, for example, was carrying on an experiment to stabilize the production and price of rubber. Brazil had its coffee valorization program, and Australia was concerned with wool and sugar.

There is some disagreement on the success of these plans, but the fact that they were being tried caused some legislators to consider them. For example, Governor Lowden of Illinois, writing in *The New York Times* in 1927, after reviewing these plans made the following statement:

> I am not advocating any of these plans. I do think, however, that just as Australia found a way to take care of her huge wool surplus without bankrupting her finances, and Brazil a way by which her coffee is no longer a menace, and England a method by which her rubber surplus no longer paralyzes the rubber growing industry, so we in America may,

if we will, find a means of taking from the back of the American farmer the burden of his surplus.[3]

Those in distressed industries, however, were not the only groups interested in price control. Labor sought to improve its economic status. Moreover, many industries wanted to stabilize prices but had not yet come to the point of advocating direct price control by the government. The possibility of direct price controls did not receive serious consideration until the great depression of the 1930's caused mass unemployment and disrupted agriculture and industry.

When the depression developed, three groups soon considered price control as a possible solution for their problems. Labor urged a Fair Labor Standards Act to put a floor under wages. Agriculture demanded price parity, and industry was interested in price making by code agreements. In order to study the results of agitation by these groups we shall survey their demands briefly.

Labor-wage control. In a later chapter the labor problem will be considered in more detail. At this point our concern is simply with direct price control devices used to aid labor. In the main these laws have been concerned with minimum wages for private and public employees.

Reformers interested in increasing wages wanted to aid the workers whose wages were lowest and whose bargaining power was weakest. These included women, children, and those employed in the sweated industries. It was decided that the best procedure was to demand that minimum wages be set by states or by the Federal government.

As early as 1912 Massachusetts passed a law setting minimum wages for women and children. The next year several other states enacted similar laws, and by 1923 seventeen states had such laws. This movement, however, received a serious setback in that year, for the Supreme Court in the case of *Adkins v. Children's Hospital* handed down a decision which seemed to indicate that the minimum-wage laws applicable to women and children were unconstitutional.[4]

This decision shocked advocates of minimum-wage laws, and halted the drive for further legislation. Some states repealed their laws, while others did not enforce them. However, in 1925 Wisconsin revived its law, and forbade employers from paying oppressive wages to females. This

[3] Monthly Letter, National City Bank, New York, February, 1927.
[4] 261 U.S. 525 (1923).

law was not challenged in the courts. In other states publicity was used to prevent employers from paying sweatshop rates.

Wage provisions in the National Industrial Recovery Act of 1933. Among the benefits that accrued to labor under the NIRA was the revival of minimum-wage guarantees. Under this Act industries drew up codes of fair competition. Many of these codes contained definite hourly or weekly minimum-wage-rate provisions. In general minimum wages in codes ranked from 30 to 70 cents per hour. Some allowed for geographic differentials or sex differences. Since these codes had the force of law, they represented direct minimum-wage controls.

Because of the depression, and partly because of the new attitude on the part of the government, some states again passed minimum-wage laws. This movement, however, was again checked when the Supreme Court in the Schechter case nullified the National Industrial Recovery Act, and thus prevented price fixing by code authorities.

Moreover, the Supreme Court in 1936 went even further and declared a minimum-wage law in New York unconstitutional.[5] These decisions seemed to prevent the use of this method to aid labor. However, just when it seemed that minimum-wage laws were doomed, the Supreme Court in 1937 upheld a Washington state minimum-wage law.[6] States then began to pass this kind of legislation, and by 1938 twenty-four states had enacted minimum-wage laws.

Fair Labor Standards Act of 1938. In spite of unfavorable court decisions on state legislation, the movement to secure a Federal minimum-wage law continued. In 1936 the Walsh-Healy Act was passed. This Act required that any business which secured a government contract amounting to $10,000 or over must pay "such minimum wages as are determined to be the prevailing ones." About the same time, bills were introduced to establish fair labor standards. Finally, in 1938, Congress passed a Fair Labor Standards Act. A provision of this Act was that a minimum wage of 40 cents per hour must be paid. In 1949, the minimum was increased to 75 cents per hour.

Evaluation of minimum-wage rates. In periods of price inflation any minimum wage is likely to become extremely low. However, certain general issues must be faced. If a minimum wage is set high enough to have any significance, a very serious problem arises for workers near the

[5] *Moorehead v. Tipaldo,* 56 Sup. Ct. 910, 1936.

[6] *West Coast Hotel v. Parrish,* 57 Sup. Ct. 578, 1937.

borderline of employability. The physically handicapped are in this classification. More serious, however, is the case of the mentally handicapped.

It is clear that if an employer must pay a minimum wage he will only hire workers who can earn at least that minimum. The others become permanently unemployable and a burden on society. It is, therefore, necessary to provide for special licensing of workers with a low degree of competence, so that they can find work at wages below the minimum. Certain young workers and apprentices must also receive special consideration.

It must be evident that there is no magic through which a government, by the enactment of a minimum-wage law, can guarantee everyone that minimum. In normal times such a law simply draws the line between employables and unemployables. However, the fact that minimum-wage laws create problems is no argument against the basic principle that workers should not be exploited. The question is, Can a minimum rate be found which will give some protection to the worker without increasing unemployment?

Industrial price control. The period after the First World War brought many difficulties for business. The maladjustments in world trade caused by the war continued in the 1920's, and in consequence some industries suffered from overcapacity. Competition became so intense that it was often called "predatory" and "destructive." To meet this situation an effort was made to secure cooperation between government and industry. Government and industry had learned to work together during the war. Why, it was reasoned, could not such cooperation be continued in time of peace? In an effort to bring this about, the Department of Commerce undertook to aid business. The Federal Trade Commission cooperated, and in the 1920's instituted a series of trade-practice conferences designed to foster fairer standards of competition. In this period trade associations also sought to secure more cooperation among their members.

However, it appeared that many proposed policies violated the Sherman Act. The legality of the trade practice conferences was questioned and Supreme Court decisions forced the abandonment of many trade-association practices. As a result, cooperation between business and government was seriously restricted. To many it seemed logical to modify the Sherman Act, and such action was demanded. However, the opposition was so great that other means were sought for avoiding the provisions of the Act.

The National Industrial Recovery Act. As the depression deepened various proposals for industrial cooperation were presented. Finally, on June 16, 1933, Congress passed the National Industrial Recovery Act, which was designed to secure the necessary cooperation without violating the Sherman Act.

A few sentences from the declaration of policy in this Act will indicate its purpose. The Act stated: "It is hereby declared to be the policy of Congress to remove obstructions to the free flow of interstate commerce . . . by promoting the organization of industry for the purpose of cooperative action among trade groups. . . ."

In order to carry out the purposes of the Act industries were allowed to adopt codes of "fair competition" under the supervision of the government. In this chapter we are concerned only with the price-control provisions found in the codes.

Price fixing in codes. Most of the industry codes contained some provision for maintaining "fair" prices. A study of the codes reveals that they contained one or more of the following types of price control:

1. Definite price minima for resale. The wholesaler or retailer was prohibited from selling his product below cost. This cost price was to be found by adding a certain fixed percentage to the price paid. Such a provision was often found in wholesale and retail codes, and was designed to prevent the use of "loss leader" competition.

2. Setting minimum factory prices based on cost of production. The purpose was to prevent "destructive" competition, by forcing each producer to sell his commodity at a price that at least covered his production costs.

3. Open price agreements. Under these agreements firms in an industry submitted to the code authority a price list showing the prices at which they would sell their commodities, and the date at which such prices were to be effective. Actually this was a thinly veiled device to establish a monopoly price, for unless the code authority accepted the price list it was not effective. In many instances code authorities would not accept prices if they were below what they considered fair.

4. Price control through limiting supply. This provision was found in the textile code.

5. Basing-point price control. A revival of the basing-point system was designed to prevent destructive price competition.

6. Miscellaneous price provisions intended to influence prices. These included such provisions as limiting the number who might enter the

industry, and setting a waiting period between the time of reporting prices and the time of making them effective.

Price cutting was not eliminated by these codes. It is also probable that the price increases which resulted from the codes somewhat reduced business. As a result, sorely pressed businessmen ignored the codes and reduced prices when they thought it was to their advantage.

The difficulties encountered in determining fair prices were very great. Often it was impossible to ascertain costs, because many small firms did not keep accurate books. Cost allocations were arbitrarily made where firms produced a number of commodities. No two accountants reached the same results even when working independently on a cost-analysis problem. One writer summed up the situation in the following words: "In view of all these considerations, we must conclude that the NRA code provisions prohibiting sales below cost were completely unenforceable." [7]

Distress industries. The decision of the Supreme Court which prevented price fixing in codes did not stop all efforts by industry to find ways to set prices legally. The problem of price control was especially vital in two industries which were in distress. These were the coal and the milk industries. We shall study each briefly in order to understand the problems encountered in attempts at price control. Since these two industries were in distress, the problem confronting state and Federal authorities was to set reasonably high minimum prices. Yet if minimum prices were to be increased, especially in a depression, the consumer might be harmed. Therefore, it was necessary to determine not only the minimum but also the maximum price, so that both producer and consumer would be fairly treated.

The Coal Industry as a Case Study in Price Control [8]

As a whole the coal industry suffered from overcapacity, wasteful methods of mining through efforts to cut costs, high freight rates, labor difficulties, and an unwise tax system. The labor difficulties were accen-

[7] Roos, Charles F., "NRA Economic Planning," Principia Press, Bloomington, Ind., 1937, p. 276.

[8] For an excellent outline of regulation in the coal industry, see "Regulation of Interstate Commerce in Bituminous Coal," a mimeographed government publication, U.S. Government Printing Office, Washington, D.C.

tuated by the mine owner's resort to wage cutting as his only means of reducing costs. The tax system was bad because it forced the operator to pay heavy taxes on all coal lands which he owned, thereby compelling him to put mines into operation as rapidly as possible in order to avoid a large overhead for which he secured no return.

Federal regulation was first applied to coal during the First World War, when the Food and Fuel Control Act was passed in 1917. This Act gave the government power to control production and distribution, and set maximum prices for coal. This was an emergency measure effective only during the war.

Shortly after the war, however, labor in the bituminous coal mines struck for increased wages. This was at a time when the demand for bituminous coal was decreasing. To alleviate the resulting distress in the industry, Congress in 1919 created the Bituminous Coal Commission, but limited its power to making recommendations for the settlement of the strike. The Commission, after investigation, decided in favor of the miners, and established wages at the highest point in the history of the industry. At first the owners did not feel the effect of the higher wages, for the strike had depleted supplies of coal and this made it possible to increase prices. In 1920 the industry enjoyed one of the most profitable years it had ever experienced. But late in that year the government control of the railroads, which had been established as a war measure, ended, and soon thereafter freight rates on coal were raised. In addition, the business recession of 1921 reduced the demand for coal, and new labor troubles arose in the mines.

In 1922, at the suggestion of President Harding, Congress created a new coal commission. The Commission reported in 1925, and recommended that producers consolidate to reduce the number of mines. It also advised the increased use of collective bargaining in labor disputes.

In 1924, before the report of the Commission was made, mine operators had formulated the Jacksonville Agreement. This was intended to eliminate price cutting and to provide for discussion of other problems confronting the industry. The agreement was to be effective for three years. But the demand for coal continued to decline, due to increased freight rates, loss of the export market, increasing efficiencies in the consumption of coal, and growing competition from oil and gas. As a result, conditions became so desperate that the Jacksonville Agreement was not adhered to by its signers, and was not renewed at its expiration in 1927.

In 1932 a marketing agency known as Appalachian Coals was formed. After the Supreme Court approved of this agency still other marketing organizations were created.[9] But the activities of the groups were suspended with the passage of the National Industrial Recovery Act by Congress in 1933. Under the NIRA the coal industry prepared a code. This code provided for minimum prices at the mines. It also established wage scales. However, the code failed to help because operators did not comply. It soon became apparent that coal prices could not be successfully regulated unless the prices of competing fuels were also regulated.

Price regulation of coal. In spite of the difficulties which had been encountered, demands arose for a new code when the Recovery Act was declared unconstitutional in 1935. In August, 1935, Congress passed a law known as the "little NRA," or the Bituminous Coal Conservation Act of 1935. By the provisions of this Act a coal commission was created with power to set minimum prices at a level which would approximately equal the average cost of production. The Commission was also to establish maximum prices and to eliminate unfair trade practices. The law was to be enforced by assessing all coal-mining companies 15 per cent of the selling price of their coal, and then refunding 90 per cent of the sum to those who complied with the Act. The Supreme Court declared this Act unconstitutional on May 18, 1936.

Bituminous Coal Act of 1937. In April, 1937, a new Bituminous Coal Act was approved by Congress. It was similar to the 1935 bill but eliminated those provisions of the earlier Act which the Court had found unconstitutional. Under the new Act a commission was created with power to divide the country into coal districts and set prices for each. A Consumers' Council was also created.

The Commission established minimum prices, but their validity was at once challenged by both producers and the Consumers' Council. It was maintained that the Commission had set prices without hearings,

[9] Appalachian Coals, Inc., was a trade association consisting of 137 producers of bituminous coal in the eastern coal district. Appalachian Coals was the common selling agency for the association. Its purpose was to establish standard classifications and to sell all of the coal produced by members at the best price obtainable. If all could not be sold, then sales were apportioned among producers. The agency was to determine the price for all coal. The Department of Justice brought suit against the agency, claiming that it was violating the Sherman Act. The Supreme Court disagreed, and allowed the agency to operate.

and without disclosing its methods. In the face of these accusations, the Commission rescinded all price schedules in February, 1938.

The Commission then sought a new policy. To secure the necessary cost data, the Commission sent cost report forms to all producers of bituminous coal. Over 90,000 reports were tabulated, and these covered more than 95 per cent of total production. Hearings were held and prices set. These became effective Oct. 1, 1940.

The task of the Commission, however, was not over when minimum prices were determined. It was still necessary to consider many petitions asking that the established prices be modified, and some kinds of coal had not been classified. The Act of 1937 was to be operative for four years only; hence when prices were finally determined, it had less than a year to operate. Demands arose, therefore, that the Act be extended.

There was much opposition to the continuation of the Act, much of it because of changing economic conditions. Critics were also impressed by the complicated problem of determining average minimum prices in over one hundred districts, and for thousands of mines. Moreover, a price had to be determined for each different size of coal, and the average mine produced five different sizes. Also, coal extracted from one mine differs from that taken from another. Differences in ash, sulphur content, and heating qualities all have a bearing upon the price that can be asked for it. Moreover, certain sizes of coal sell faster than do others, and this creates a problem of surplus stocks of the less popular sizes. This raises a question of how to dispose of a surplus when a minimum price is fixed. These and many other factors accounted for opposition to extension of the Act. However, the Act was amended in 1941 and extended for two years.

In 1940, when minimum prices were finally set, war had already been declared in Europe, and prices were rising in the United States. It appears, however, that price control, even if production had been regulated, would have been difficult to enforce in this industry. When minimum prices are set too high, production will tend to be increased, but consumers will gradually change to other fuels. If the price is set too low, the industry suffers losses; though demand may rise, the increase comes slowly. In the meantime many producers may become bankrupt. The experience with coal in the United States illustrates excellently the troubles encountered in trying to control prices for a widely used commodity, especially one produced by many firms.

The Milk Industry as a Case Study in Price Control

The milk industry is often in distress, although milk is an essential food. Moreover, experts agree that our people do not consume sufficient quantities of milk. The consumer thinks that the price of milk is too high, that there is too much duplication in delivery, and that the price differential between store milk and home-delivered milk is too small. Farmers agree that the price to the consumer is too high, but they insist that farm prices for milk are too low. For example, in 1913, when the price of home-delivered milk was 8 cents in Chicago, the farmer received 3.4 cents and the dealer 4.6 cents. At that time a milk driver's wage was $19 a week. In 1919 the price of milk was increased to 14 cents, which was divided equally between the farmer and the dealer. However, drivers' wages had increased to $32 per week. In 1930 the price was 15 cents per quart, but the farmer received only 5.4 cents while the dealer received 9.6 cents. Drivers, however, received $50 per week. In 1938 the farmer received 3.7 cents, the dealer 8.8 cents, and the driver $48 per week. While the farmer's return rose from 3.4 cents in 1913 to 7 cents in 1919, the price gradually decreased again until it was practically at the 1913 level in 1938. The dealers' share, however, almost doubled, and drivers' wages rose from $19 to $48 per week.

The farmer does not resent increases in wages, but he does maintain that the system of delivery is unnecessarily costly. He believes it increases the price of milk to the consumer and thereby decreases the demand for fluid milk.

Nature of the milk industry. Milk for human consumption is sold under various conditions. In a small community the farmer may be both the supplier and the distributor of the milk, and in the latter capacity he performs functions not unlike those of a public utility. Sometimes such a producer has a monopoly in his market, but generally the channels of trade are open, and potential, if not actual, competition keeps the price low. But as communities grow, conditions within the business change. Production and distribution are usually separated, and large distributing companies are formed which standardize and grade milk, and also pasteurize it. In most cities prices to the consumer are identical, although there may be several distributors.

Many diverse factors affect the milk market. The fact that milk is susceptible to contamination has caused its regulation by state and municipal authorities in the interest of health. By imposing special rules, such as requiring herd and dairy inspection, or a certain butterfat content, governmental agencies may greatly influence the prices and policies which prevail in the industry. Farmers often organize milk associations, and seek to limit the number of dairy farms and the amount of milk which can be produced. Once such control is partially attained, producers can bargain with the distributors in regard to price. Finally, milk drivers and other workers are organized into unions and insist that they be given what they consider to be fair wages. If, because of limited purchasing power, consumers are unable or unwilling to pay prices which will cover all costs, the industry is in distress.

Another factor must be considered in regard to price fixing in the milk industry. The demand for fluid milk is relatively inelastic, and this means that a change in the price will not seriously affect the amount of fluid milk used for human consumption. However, a high price for fluid milk may stimulate production; this will increase the "surplus" which must be used for making butter, cheese, and other dairy products. The farmer is paid a lower price for this surplus milk. If the surplus is large, it will depress the price of milk products; this in turn will bring a further reduction of the price paid to the farmer.

From the point of view of the producer, therefore, a surplus of milk is a menace. He sends only one product to the market, fluid milk, which must comply with strict requirements in order to qualify for human consumption. Yet much is not used for human consumption in fluid form. Thus the producer receives different prices for an identical product, but he has little choice of the way his product is used. He may not even know how the price he receives has been determined.

Price determination in the milk industry. The attempts of producers, distributors, and unions to determine milk prices have caused consumers to demand government regulation. But not only consumers have demanded regulation. Farmers often complain that they do not receive a fair share of the price at which the milk is ultimately sold. In consequence they too have demanded government control.

Those who have demanded regulation of the milk industry have assumed that the government would set fair prices based on cost of pro-

duction. But one important factor apparently is overlooked. As long as there are many producers and distributors, it will be impossible to set prices that just cover costs, because the production costs will vary widely between farmers. Even to find the cost of producing milk on a given farm presents great difficulties. First a fair value of the farmer's investment must be determined, and a fair return on that ascertained. Second, operating costs must be found. This problem is complicated by the fact that the farmer does much of his own work, and has no definite hours or wages. Third, the problem of finding the cost of producing milk on a given farm is complicated by the question of inseparable costs. Most farmers produce other products as well as milk, and some of the costs they incur cannot easily be allocated among the various products.

Determination of farm costs is, of course, only one step in the process of fixing milk prices, for farmers sell milk to distributors, and the costs incurred by these distributors must be considered. It would be relatively easy to ascertain the costs borne by each of several distributors in a given market if fluid milk only was concerned. However, each dealer sells only a portion of the milk he buys as fluid milk, and processes the remainder into other products, some sold in the local market and some at a distance. These products are manufactured under joint-cost conditions, and it is impossible to make a cost allocation between such products and fluid milk except on an arbitrary basis.

Price control of milk by state legislatures.[10] Sufficient has been said to indicate the nature of the problem which confronts any regulatory agency which attempts to control the price of milk. Yet in spite of these difficulties, by 1938 twenty-five states had created milk-control boards for this very purpose.[11] The state of New York was the first to establish such an agency. Since most states have patterned their legislation upon the New York model,[12] we shall center our attention upon this Act.

In 1933 the New York State Legislature established a Milk Control Board with power, among other things, to "fix minimum and maximum . . . retail prices to be charged by stores . . . to consumers for consumption off the premises where sold." This law was passed because the legislature found that:

[10] HAMILTON, WALTON, and Associates, "Price and Price Policies," McGraw-Hill Book Company, Inc., New York, 1938.

[11] *Ibid.*, p. 498.

[12] "New York Laws," 1933, Chap. 158.

> . . . the normal law of supply and demand was insufficient to correct maladjustments detrimental to the community . . . inquiry disclosed destructive and demoralizing competitive conditions, and unfair trade practices which resulted in retail price cutting and reduced the income of the farmer below the cost of production. . . . That body [the legislature] believed conditions could be improved by preventing destructive price cutting by stores which, due to the flood of surplus milk, were able to buy at a much lower price than the large distributors, and without incurring the delivery costs of the latter.[13]

In order that it might determine a fair price, the Board was given broad powers to supervise and regulate the industry, subpoena records, and grant or withdraw licenses. Prices were to be sufficiently high to protect the industry and low enough to fit consumers' needs. The Board was also to insure the protection of the health of the community.

The Board held public hearings at which farmers and distributors testified concerning their costs. But it was impossible to check the accurracy of the reported costs except by the tedious method of cost determination practiced in the utilities. Since the Board was unwilling to use this method because the emergency demanded immediate action, the final price was based on costs submitted by producers and distributors. It was 10 cents a quart when sold by distributors, and 9 cents at stores.

The New York law was significant because it marked the first time a state had been placed in a position in which it could question the price-making policies of the industry. In this industry price had always been set by agreement between the producers and the distributors. Because this method had failed to solve the industry's problems, the state was called in. Since there was no time for lengthy cost-determination procedures, the state had to approve as the price of milk the bargains which had been made by the interested parties.

The New York Board encountered another difficulty when it attempted to regulate the price of milk shipped from other states and sold in New York. The Supreme Court decided that such regulation was impossible since the milk was in interstate commerce.[14] Other states were confronted with similar problems.

[13] *Nebbia v. People of the State of New York*, 291 U.S., 502–522 P.U.R. (N.S. 337), 1934.

[14] *Baldwin v. Seelig*, 294 U.S. 511 (1935).

National regulation of the milk industry.[15] The problems confronting the milk industry became so serious that the Federal government in 1933, under the Agricultural Adjustment Administration, sought to determine a national policy. But disagreement arose as to the purpose of national regulation; one group wished to control production while another wished to support prices. In accordance with the ideas of the second group, producers and dealers joined the government in formulating fair trade practices. These included determination of the "milk shed" area for each metropolitan market.[16] It also included granting of certificates of convenience and necessity to distributors, attempting to remedy inequality in producers' payments by classifying milk more carefully, and determining prices to be paid to distributors in sheltered markets. In some instances schedules of prices for wholesale and retail sales were fixed. Marketing administrators were appointed to supervise these contracts and to arbitrate differences.

While about fifty marketing agreements were concluded under the Agricultural Adjustment Administration, so many problems arose in their execution that finally the efforts of the Administration were confined to raising prices for producers. All other price-fixing schedules were abandoned as unworkable in December, 1933. Many states soon followed the lead of the government, and passed laws providing for minimum prices. However, some states established prices at the wholesale and retail level as well as for producers. This method of determining prices was declared to be legal by the Supreme Court.

Flexible price formula for milk. A fairly successful formula for fixing milk prices was based on the price of butter, which is a good index of changes in the supply and demand for milk. It was believed that a price for fluid milk based on the price of butter would allow for flexibility, and yet give a certain stability to the market. This price formula was put into effect in the Chicago market on Sept. 1, 1937. The price of butter, however, is also related to the price dealers pay for milk to be used by condensed milk plants. Since 44 per cent of the milk supply is made into butter, 7 per cent is used for cheese, 30 per cent is used as fluid milk, and the rest is sold to condenseries, the formula took these various

[15] BARTLETT, R. W., "The Price of Milk," Interstate Printers and Publishers, Danville, Ill., 1941.

[16] A milk shed is the area from which milk may be shipped to a given metropolitan district.

factors into account. This formula has not led to artificially high prices, and has allowed prices to change with changing conditions. Hence it has the virtue of flexibility. Moreover, in determining prices on this basis, the government makes information about the supply and demand for milk available to all.

Conclusions regarding the fixing of milk prices. The fixing of milk prices involves problems typical of those found wherever direct price control is attempted. The main problem is to secure a flexibility similar to that which would exist in a freely competitive market, yet at the same time to avoid extreme price fluctuations. It is maintained that after other price methods failed, the formula used in the Chicago market has succeeded. It is said to have created more stability in the industry. This formula, however, cannot solve all of the industry's problems. It is no substitute for increased efficiency, nor is it a cure for excessive costs and duplication of equipment and services. Unless these and similar problems are solved, the milk industry may again encounter distress conditions.

Control of Other Agricultural Prices

Many of the problems found in the milk industry are representative of all phases of agriculture. Basically, agriculture suffers from changes in output which are reflected in wide price fluctuations. Agriculture is unstable because output cannot readily be adjusted to a demand which is usually inelastic. Farmers cannot control the weather, and this factor is a very significant influence in determining production. Also, each individual producer exercises little control over output in such a highly competitive industry as agriculture. Therefore, when prices fall to a low level, farmers are likely to demand that the state aid them.

We have observed that during the First World War farmers were guaranteed minimum prices for certain products in order to stimulate output. Under these guarantees farmers not only expanded production during the war but continued to increase it even when demand began to fall off after the war. The depression of 1920 to 1921 affected farmers more than any other group. Agricultural prices fell sharply, and farmers did not recover from this decline for many years. As a result, the farm problem became an active political issue.

During the 1920's and early 1930's various measures were passed by Congress to aid the farmer. None, however, was entirely successful.

Since these measures were not directly aimed at price control, we will not discuss them here. At this point we shall consider only those actions of Congress which were primarily designed to affect agricultural prices.

Agricultural Adjustment Act of 1933. The Agricultural Adjustment Act of 1933 did not provide for direct price control, but it was nevertheless designed to increase prices. The Act was intended to secure prices for the farmer that would give him the same power to purchase industrial commodities as he had enjoyed during the 1909 to 1914 period. The agricultural prices necessary to achieve this objective were called parity prices. To attain them, two measures were taken: (1) Production was controlled by having the farmer agree to reduce his acreage. (2) The farmer was induced to make this reduction by cash benefits based on the land withdrawn from cultivation, the money to pay for such benefits coming from a tax on the processors of farm products. In the main, the Act of 1933 was designed to increase prices by restricting production.

Soil Conservation Act of 1936. The Agricultural Adjustment Act of 1933 was declared unconstitutional in the case of the *United States v. Butler,* in January, 1936. Congress on Apr. 17, 1936, enacted the Soil Conservation Act to control agricultural production, and to give other aids to farmers. However, since this new act did not control prices directly, we simply note that the Agricultural Adjustment Act of 1933 was supplanted by the Soil Conservation Act of 1936.

Agricultural Adjustment Act of 1938. Farmers were not entirely satisfied with the efforts of the government under the Act of 1936. Therefore, a new Agricultural Adjustment Act was passed in 1938. Its purpose was to provide parity prices and to stabilize agricultural production. The main features of the Act are (1) provisions for adjusting acreage, (2) measures to prevent the marketing of excess production, (3) crop insurance, and (4) making loans to farmers to encourage them to store surpluses. This last feature is sometimes called the "ever-normal granary" provision. Theoretically such crops as are withdrawn from the market would later be released when supplies are not so abundant.

While each of these measures was designed to aid in establishing parity prices, only the loan feature can be considered as a direct price-control measure. Under the Act the Commodity Credit Corporation made loans on certain basic commodities. In practice, the amount loaned became the minimum price, since the farmer had the option of repaying the loan or allowing the government to take over his crop. Rather than sell for

less than the amount of the loan, he would let the government take his crop. The amount loaned by the government could not exceed 75 per cent of the parity price.

To some extent crop insurance was also a price-control feature, since farmers could insure their crops to receive a guaranteed return of at least 75 per cent of their average income. This feature of the Act was not too successful, and is still on an experimental basis. It can be seen that the Act of 1938 gave the farmer more direct aid than any of the previous acts.

Evaluation of government aid to agriculture, 1933–1940. Our brief survey has indicated that the farmer received much aid from the government during the period 1933 to 1940. Attempts were made to increase farm prices and income by indirect means such as production control, cash benefits, marketing agreements, and crop insurance, and prices were supported directly by means of commodity loans under the ever-normal granary plan.

What were the net results of the Agricultural Adjustment Act of 1938? Obviously we cannot hope to evaluate the entire program in this survey. Our interest lies in determining whether the price-fixing policies embodied in the Act aided in relieving agricultural distress. We therefore quote from the report of the Secretary of Agriculture in 1944. This report states that, in August of 1939, at the outbreak of the war in Europe, "food prices at retail in the United States were lower than at any time since the middle of 1934." [17] It appears, therefore, that the price-control measures in the Act of 1938 were not successful in raising agricultural prices.

It is clear that attempts to solve the problems of agriculture by price supports may merely build up surpluses. Ultimately these surpluses must be thrown on the market, or the government must buy and destroy them. Some advocates of price control have proposed that only domestic prices should be supported. Any portion of a crop not sold at home would then be "dumped" on the foreign market for what it would bring. This would create a two-price system. It might mean a very low return on the exported portion of some crops, and would be resented by foreign producers. Retaliation could be expected in the form of tariffs or other trade restrictions against our goods.

[17] Report of the U.S. Secretary of Agriculture, 1944, p. 35.

We must conclude that, while the agricultural price-control measures of the 1930's gave the farmer some temporary relief, the attempt to maintain parity prices was not a satisfactory solution of the farm problem. However, the direct price controls of the Act of 1938 were not in force long enough, before the war, to provide an adequate test of their ultimate effects.

Price Control in the Second World War

In many respects our country was farther along in its defense program when war was declared in 1941 than in 1917. Moreover, the experience with price control in the First World War and during the 1930's made it easier to set up a price-control program.

When war broke out in Europe in 1939 there seemed to be no immediate danger of inflation in this country, and therefore no immediate need for price controls. There was still much unemployment. Wages were not as high as many desired. Moreover, the theory was advanced that because of our superior organization and resources we could fight a war without much curtailment of civilian consumption. This "guns and butter" theory retarded adequate economic preparations for war in 1939 and 1940. As early as 1939, however, it was decided that various boards and commissions should be created to regulate the economy in case of war. This prepared the way for setting up price controls at a later date.

The main areas of wartime price control were as follows: (1) wages and salaries, (2) industrial products devoted directly to the war effort, (3) civilian consumer goods, (4) rents.

Direct control of wages and salaries. When this country began preparation for war, it was still wrestling with the problem of how to secure full employment. However, as soon as a substantial number of contracts were let, serious shortages arose in skilled labor although millions of unskilled workers were still idle. In order to solve this difficulty, various training programs for unskilled labor were set up, and ultimately millions of workers were prepared for war jobs.

One problem was to determine the number of hours to be considered a regular weekly load, and then to set the rate for pay. The philosophy of many leaders in labor and government was that the armament program should be used to secure full employment. This led to the setting of a 40-hour normal work week with time-and-a-half pay for overtime.

Also there was much upgrading of jobs which in effect represented an increase in wages. It is not our purpose to decide whether the choice of a 40-hour week was wise. It is evident, however, that by limiting the regular work week to 40 hours, overtime work increased and with it the total wage bill. As the war progressed and its needs became more apparent, the demand for labor increased accordingly. It was not long before firms were bidding against one another to obtain labor.

Little Steel Formula. The situation just described could not be tolerated after the United States entered the war. On Apr. 27, 1942, the President ordered the War Labor Board to stabilize wages. The Board, acting under these orders, announced its wage-stabilization policy in a decision which involved a dispute in the steel industry. The policy was known as the "Little Steel Formula." It allowed a general wage increase of 15 per cent above the rate prevailing when the case was brought to the Board. It stated that this increase was to be the maximum granted, for it was equal to the rise in the cost of living from January, 1941, to May, 1942. The Board thus indicated it was limiting wage increases to increases in the cost of living in order to stabilize the purchasing power of workers as of January, 1941. This policy, however, had to be modified because prices were rising. Under the Stabilization Act of October, 1942, wage levels which prevailed on Sept. 15, 1942, were to be the maximum except where adjustments were necessary to prevent inequalities.

From the time of this order until April, 1943, most of the wage increases which were permitted came as a result of requests by employers. In many cases they found it necessary to raise wages in order to retain their workers or to secure new employees. In the main, the wage line held. However, many employers sought to secure workers from other plants by placing them in jobs having a higher classification.

Hold-the-line policy. To prevent this indirect method of increasing wages the President, on Apr. 8, 1943, issued a "hold-the-line" order. The order read in part:

> The chairman of the War Manpower Commission is authorized to forbid the employment by any employer of any new employe, or the acceptance of employment by a new employe, except as authorized in accordance with regulations which may be issued by the chairman . . . for the purpose of preventing such employment at a wage or salary higher than that received by such new employe in his last employment, unless the change of employment will aid in effective prosecution of the war.

After the above order was issued, wages could be increased only by the consent of the War Manpower Commission. It must be recalled, however, that labor was able to work overtime, that upgrading was taking place, and that adjustments were made where inequalities existed. Thus labor was able to secure wages substantially above peacetime levels. Undoubtedly wage rates would have risen much higher, however, if controls had not been established.

Direct price control in government contracts. We noted that in spite of price controls, profits in the First World War were often exceedingly high. It is evident that neither the cost-plus nor the bulk-line pricing method was effective in preventing excessive profits. As soon as the Second World War began Congress considered various proposals for controlling the prices of goods purchased by the government. Finally, in 1942, the Renegotiation Act was passed. This Act contained the following formula: Every contract and subcontract in excess of $100,000 was to contain a renegotiation clause. Excessive profits were to be recovered from any producer holding a government contract, if final payment had not been made prior to the passage of the Act.

This Act was designed only to eliminate excessive profits arising out of the war. However, the practice developed of reviewing all war contracts, and requiring the return to the government of any amounts above a fair profit. Congress extended the Renegotiation Act in 1944, without many modifications, and its provisions were upheld by the Supreme Court.

Enforcement of this Act created many problems. Renegotiators had to exercise good business judgment in determining what constituted excess profits. Because conditions varied so widely between firms, rates of return also varied. Many businessmen did not like the idea of variations in the rate of profit. They insisted that they should be allowed a certain definite return. Moreover, they sometimes argued that efficient firms should receive somewhat more, and inefficient firms somewhat less, than the normal rate.

Businessmen selling to the government also complained because manufacturers of civilian goods made large wartime profits. However, profits arising from war work were often high, and manufacturers generally were not hurt by renegotiation. At the same time, the government received war goods at lower prices than would have been the case without controls. It appears, therefore, that renegotiation of war contracts

was a reasonably successful device for protecting the government from overcharges.

Price control of civilian goods in the Second World War. We cannot discuss each of the many agencies which sought to control prices during the Second World War, nor is it possible to describe the controls applied to each commodity. We shall, therefore, limit the discussion to certain price techniques used during the war. The Office of Price Administration (OPA) was responsible for applying many of them.

Price freezing. One of the most common devices used in regulating prices was the "price freeze." This method operates as follows: Prices charged as of a certain date or period are used as a base, and no producer is allowed to charge more than this price unless he secures permission from the government. The advantages of the freeze technique have been stated by Professor Harris of Harvard.[18] They are as follows: (1) A price can be justified on the ground that it is based on accepted practice in industry. (2) It requires a minimum of investigation. (3) It has the advantage of expediency. (4) It permits the preservation of price differentials. However, Professor Harris also cites certain disadvantages: (1) The problem of making allowance for such practices as special sales cannot be solved. (2) What is to be done about new products? (3) The freeze may be very hard to enforce because of the multiplicity of prices. (4) The device may not enlist the support of the public. (5) It may not be adequate to deal with deterioration of quality, disappearance of low-margin products, or other shifts in the kinds of goods sold.

Professor Harris concludes that the freeze technique of regulating prices was not a great success. Often it permitted profits that were too high. As time passed, the freeze technique had to be supplemented by other methods.

Price freezing is at least a useful stopgap. It gives the authorities time to study the price situation and to devise more permanent measures. Three of these are discussed in the following paragraphs.

Formula pricing based on costs. Formula pricing based on costs is really not a full-scale control method, for it generally applies only to goods that cannot be standardized, or to new products. The formula

[18] HARRIS, SEYMOUR E., "Price and Related Controls in the United States," McGraw-Hill Book Company, Inc., New York, 1945, Chap. VIII.

price usually is obtained by finding the original or replacement cost, plus the profit margin as of a certain date, plus any extra costs. While the formula-pricing device was used extensively, it was not considered to be an unqualified success. Too often prices were based on costs which were outmoded because of war conditions. Then, too, it was often possible to pad costs. Sometimes the wrong mark-up was used. Moreover, when businessmen were squeezed because of the use of this policy, they turned to more profitable pursuits.

Dollars-and-cents pricing. The limitations of the freeze technique and of formula pricing led to the more extended use of dollars-and-cents pricing.

This method is used to prevent wide discrepancies in the prices of certain commodities. Under the freeze method or cost-of-production formulas, different sellers may charge different prices. However, a dollars-and-cents price is the same for all who sell a product. It may be used to set minimum as well as maximum prices, but it is always expressed as a definite sum of money.

The attempt to set a dollars-and-cents price on goods may lead to many complications. An example will make this point clear. In setting the retail price of ham, ten geographical zones, four grades of meat, and seventy-two different cuts had to be considered. For this one item alone 2,880 price quotations were required. If all this was involved in setting the price of ham, one can imagine how tremendous was the task of setting prices for perishable foods in the whole United States. Yet in spite of these difficulties the results of this method were not too bad. The preciseness of a dollars-and-cents price makes it more easily enforceable.

Rent Control

Because rent controls have been continued into the postwar era, this area of price fixing will be given special attention. Many OPA leaders point to rent control as the most successful of this agency's attempts to control prices. Landlords, however, have bitterly criticized rent control, especially as a peacetime measure.

Rent control is comparatively simple. The product is reasonably homogeneous, and most tenants make only one payment a month. There is little difficulty in finding out what rents are being paid. In addition, rent is such a large item in the budget of the average citizen that he is keenly

aware of any increase. During war periods there is comparatively little new building, so the question of setting rents on new housing units seldom arises. The OPA pointed with pride to its success in using the freeze technique in controlling rents. It stated that between 1940 and 1943 average rents increased by only 3.3 per cent. Some writers, however, question this figure.

In imposing ceilings on rent, the government simply states that the rent as of a certain date may not be increased. No landlord can then charge more unless he receives special permission. Because it is more difficult to evade rent control, landlords profited less in the war period than many other groups.

While rent control was reasonably successful during the Second World War, many of its aspects are not revealed by the data presented. Because rents were relatively low, civilians who received increases in wages wanted more space. This was one of the major causes for the housing shortage, both during and after the war. It is maintained by some writers that the available per capita housing space in the United States was greater in 1945 than in 1935, a time when there were millions of houses vacant. If this is true, the shortage can only be explained by the fact that, because rents were too low in 1945, the population spread out, and in this way increased the demand for housing.

Another aspect of this problem relates to the black market in rental units during and after the war. Persons seeking homes were willing to pay bonuses to secure a house or apartment. Payments to black-market operators do not appear in the official data, but they loomed large in the war and early postwar period. These black-market transactions were but one of many problems which arose under rent control.

Price Control in the Postwar Period

As soon as the Second World War was over, demands arose for the removal of price controls. In response to these demands Congress set June 30, 1947, as the termination date of the OPA. Since the President had the power to lift price controls earlier if he desired, he ordered many products freed from price controls as early as November, 1946.

Our experience with price controls during and just after the war gives us little basis for judging their effectiveness and desirability in time of peace. At this writing rent controls are still in effect. These controls,

however, are temporary and are to be continued for the emergency period only. On the other hand, in the milk and coal industries price controls are expected to be permanent. Agricultural price supports have been continued, but the prices of some commodities fell below support levels when postwar surpluses appeared.

Another aspect of postwar price control is the setting of minimum wage rates by law. Here again the problem is one of determining how high such minimums should be. In this postwar readjustment period there is danger that the rate may be set too high. A high, inflexible minimum-wage rate might, in the future, substantially increase unemployment. In a depression such a wage rate would prevent many workers from getting jobs.

Conclusions

In summary, let us make a few observations on American experiences with direct price controls as they relate to stabilization:

1. Before deciding to apply a price-control measure, the first question to ask is this: Can this measure be used without the use of other controls? The answer is an unqualified *no*. Whenever demand-and-supply relationships are distorted by setting arbitrary prices, other controls must be applied to meet the resulting maladjustments. In time of war when the purpose is to keep consumer prices down, rationing must accompany price controls so far as civilian goods are concerned. Otherwise, some people will get large amounts of the controlled commodities and others will get little or none. Also, black markets will flourish. In periods of depression when the purpose is to raise prices, production controls must accompany price regulation. Otherwise a minimum price above that which would prevail in a free market will curtail demand and build up surpluses. Moreover, the encouragement given producers will cause a further increase in output.

2. Our economy is complicated by such factors as the dissimilarity of products, geographic differences, great numbers of producers and consumers, and changes in demand. The forces are so complex, and our knowledge of them is so inexact, that we cannot determine what price will give the best economic results. Those who seek to control prices too often assume that businessmen carefully calculate their costs and then set prices accordingly. Such a conception, however, does not accord with the facts. Actually most producers take what they can get for their

products, and hope that over the long run they will be able to cover their costs of production. In a free market the forces of competition are, in the long run, likely to bring about a better adjustment of prices, production, and consumption that can any government agency.

3. Those who desire price control often maintain that all producers should receive the same price. There is, however, no one price that prevails all over the country. Local conditions cause prices to vary. A single price leads to inflexibility and causes serious maladjustments.

4. Pressure groups, like organized labor, either seek special prices for their products or ask exemption from prevailing price controls. If they are allowed these privileges, price controls are not likely to be effective.

5. The problem of how to regulate the prices of goods imported from, or exported to, other countries is almost insurmountable. To restrict either imports or exports may harm the economy.

6. The partial removal of rewards for efficiency or penalties for inefficiency is one result of maintaining minimum prices for distress industries. Those who are inefficient are generally most anxious for minimum price controls.

7. If price controls are evaded, policing becomes a very complicated and delicate problem.

8. The likelihood of political manipulation of prices for other than desirable economic purposes must always be taken into account.

We must conclude that price control is likely to make the economy less flexible, and therefore, in the long run, less stable. It further appears that, even if price control is used in limited areas, it must be handled very skillfully or both the industries where it is applied and the whole economy will suffer. There is also danger that price controls may benefit a particular industry at the expense of the public and other parts of the economy.

If minimum prices are used as the basis for price control, they should be under the average level which has prevailed. This permits more flexibility. The minimum wage law, for example, is only beneficial if the rate remains below standard scales. Otherwise wage rates become high and inflexible, and it becomes more difficult for the economy to adjust itself if a depression develops. The same applies to minimum prices in agriculture and in the coal and milk industries.

Direct price controls apparently must be used in wartime despite the inflexibilities they impose, and the difficulties of administration. They

aid the war effort in several ways. They keep down the money cost of the war to the government. They prevent producers of civilian goods from making excessive profits. Such profits would not only cause resentment, but would induce businessmen to draw labor and materials away from the war effort. Price controls help to maintain public morale by protecting low-income consumers from a rapid rise in the cost of living. Where a high price is guaranteed by the government, price control may be used to stimulate the production of scarce commodities which are needed for the war effort. For all these reasons we may expect that in time of war price controls will be used. In time of peace, however, direct price controls should generally be avoided.

At the beginning of this chapter we raised the question, Can direct price controls be imposed in certain industries to secure stability without causing other areas of the economy to become more unstable, and without stifling progress? We may answer this question as follows: Except as a temporary measure to meet emergencies, direct price controls cannot be used successfully as a stabilization device. They create more problems than they solve. Even when price controls are imposed for limited periods they must be accompanied by other types of control. As long as such controls are temporary, if they are properly employed, they may aid in producing certain short-run objectives. But in general indirect controls like credit and fiscal policy are much to be preferred to direct price control if the objective is to secure economic stability. These indirect controls permit the flexibility the economy must have if maladjustments are to be cured.

Review Questions

1. Name three ways of determining the level at which a controlled price should be set.
2. What is the difference between direct and indirect price control?
3. What is the role of price in our economy?
4. Mention some early attempts to control prices. Why did these attempts fail?
5. To what group of industries was price control chiefly applied in the period between the Civil War and the First World War?

6. Describe carefully the bulk-line principle, and evaluate this method.
7. What conclusions are reached in the text as to the effectiveness of direct price control during the First World War?
8. What groups demanded direct price controls in the 1920's? In each case explain the reason for this demand.
9. Compare the advantages and disadvantages of cost-plus contracts and bulk-line contracts.
10. What groups were especially interested in direct price controls as the depression developed after 1929?
11. Trace briefly the history of minimum wages in the United States.
12. What was the purpose of the Fair Labor Standards Act?
13. When was the National Industrial Recovery Act passed and what was its purpose?
14. Evaluate the effectiveness of price control under the National Industrial Recovery Act.
15. State briefly the reasons why the coal industry was in distress. Do likewise for the milk industry.
16. Why was it necessary for Congress to pass a second Bituminous Coal Act in 1937?
17. How effective has price fixing been in the coal industry?
18. What circumstances led to national regulation of the milk industry?
19. What price formula is used in the Chicago market, and what are its advantages over other methods of setting prices?
20. What measures have been used in order to increase prices for farmers?
21. What is the status of agricultural controls in the postwar period?
22. What techniques have been used to control wages?
23. What were the principal types of price control used during the Second World War?
24. What general conclusions are reached in the text relative to the effects of direct price controls in time of peace?
25. If you wished to secure flexibility in the economy, would you depend upon direct price controls to obtain your objective? Why or why not?

Problems

1. The following excerpt is taken from an article by Harry D. Gideonse in the *University of Chicago Magazine,* November, 1933.

Mr. Gideonse states:

> At present the country is willing to pay a high price for stability, as a result of acute insecurity in all ranges of social activity. But most stability is achieved at the risk of instability elsewhere. Stable wages for skilled labor often lead to increased instability for unskilled labor, stable prices for controlled commodities and services often lead to greater fluctuations of all prices not under control.

a. Do you agree with Professor Gideonse? Why or why not?

b. Can you cite examples supporting your point of view?

2. Professor Harris, in his book, "Prices and Related Controls in the United States," has this to say about rationing:

> The net effect of rationing programs is a general reduction in demand, although in some areas demand may rise. . . . Rationing is a complement of price control rather than the reverse. Having determined prices according to supply and demand conditions . . . the government then allocates the available supply through the introduction of rationing.

a. Professor Harris implies that price control will not work without rationing. Explain why this is true. What about peacetime as compared with wartime?

b. What is meant by the statement that rationing will reduce demand? Illustrate.

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PART FOUR

International Economic Problems

There is reason to believe that a satisfactory solution of our more important international economic problems would somewhat reduce cyclical instability, would increase the flexibility of our economy, and would somewhat raise standards of living in all countries.

Part Four describes the world economy and explains the nature of international trade. It calls attention to the principal maladjustments in international economic relations, and suggests possible remedies.

13. The World Economy

Some of the major problems of our time result from the existence of political boundaries between nations whose economies have become interdependent. Two world wars and a great world-wide depression in the last four decades have indicated that no nation can live in either political or economic isolation. Despite the vivid lessons of this century, it may not yet be accepted that we live in a world economy. It is true, nevertheless, that no nation can remain prosperous indefinitely while other parts of the world suffer from depression and unemployment. In this chapter we shall study the economic relationships which nations maintain with each other, and the ways in which these relationships may promote progress and stability.

We shall note some encouraging developments in connection with efforts to encourage commerce and develop backward areas. The establishment of the World Bank, the International Monetary Fund, and the International Trade Organization provide examples of world-wide cooperation. However, we also must note certain major barriers the world must overcome in order to make progress toward higher levels of employment and income.

The quest for stability. The desire for stability in economic life has been mentioned frequently in this text. It has been especially evident throughout the world in the last three or four decades. Wars, political upheaval, depressions, and rapid innovation have added to uncertainties which confront people of nearly every nation. Ruinous inflations have occurred in Europe and Asia. In some nations this has happened twice in a single generation. It is hardly surprising that many countries have vested more power in government in an attempt to secure greater stability. Some of the controls granted to government have been barriers to the development of sound economic relations between nations.

Several examples will show how the quest for stability has prevented

nations from taking full advantage of their opportunities for trade or other economic relations with other countries. It is well known, for example, that business depressions quickly spread throughout the world after they start in some trouble spot. A nation, faced with loss of export business because of a depression in another country, may seek to preserve domestic markets for its own producers by levying protective tariffs. This happened numerous times during the great depression, and it brought retaliation from other countries. The net result was to intensify the depression for all.

Efforts to obtain self-sufficiency from a military standpoint also resulted in barriers to imports so that domestic production could be developed. Numerous governments sought to develop a diversified domestic economy capable of withstanding military siege. High tariffs, which reduced price competition from abroad, were used to encourage home producers. As a result, world commerce was curtailed.

The transition from economic nationalism to a world economy. The United States has been passing through a rather curious stage of its economic development. Two decades ago we leaned strongly toward economic isolationism. Much of our thinking is still nationalistic on economic matters. Millions of Americans still consider only the economy of the United States of America, and how it can prosper without regard to conditions elsewhere. At the same time the United States has spent billions of dollars to rehabilitate the economies of other nations. It seems very much of an anomaly to have our congressmen debate our Reciprocal Trade program or appropriations for European recovery while at the same time they consider ways of protecting American producers from the competition of Swiss watches or foreign petroleum.

As we shall explain later, the entire world has benefited from the drift from isolationism to internationalism in American thinking. But first let us further define what we mean by a world economy. Then we shall note some of the current economic problems of a world-wide nature. These problems will be the basis of our discussion.

The problems of a world economy. An ideal world economy would be one in which each nation felt free to specialize in the production of goods and services which it could produce most advantageously. The advantages of specialization could be attained because goods could be exchanged between nations without the trade restrictions which in recent decades have served to isolate nations from each other, or divide them

into blocs. In the ideal world economy, investors would be free to send their funds where returns would be greatest. Their capital expenditures would serve to develop backward areas of the world and raise living standards there.

Why do the nations of the world hesitate to take the steps necessary to secure the advantages of a world economy? Under the sponsorship of the United Nations, much progress has indeed been made in this direction. The United States, the dominant economic power, has gone far along the path of economic internationalism. However, there are major problems which first must be solved before the myriad restrictions on international economic relations can be entirely removed. Some of these problems relate directly to the two world wars and their aftermath. Others probably would have developed irrespective of these two wars. Still others have their origin in the great depression of the 1930's. Let us now enumerate some of these problems.

1. The Supremacy of the American Economy. America's capacity to produce and consume has become so great in relation to the rest of the world that important competitive problems are created for other trading nations. During the years immediately after the Second World War, the United States was the only source of many goods and services desperately needed by the whole world. Two important competitors, Germany and Japan, were eliminated by the war, and Britain, the only other major economic power, was weakened. Moreover, the United States provides the only major market for many goods and services which other nations must sell. A revival of American isolationism would be a major calamity for other nations.

2. The Destruction of Two Major Wars. The effects of the First World War were more profound than the amount of physical destruction would indicate. The damage in the battle areas was remedied in a few years, but the effects of huge public debts, inflation, the loss of overseas investments, and the disturbances created by unwise economic provisions of the peace treaties lingered on. The destruction of the Second World War was far greater. Also, its aftermath was more stultifying. The United States apparently had no alternative but to provide large sums for reconstruction of the world's economy, if complete chaos was to be prevented.

3. Changes in the World Division of Labor. During the nineteenth century a world division of labor developed. Europe, particularly Eng-

land, did the manufacturing for the world. Other nations specialized in the production of foodstuffs and raw materials. These were exchanged for European manufactured goods.

By exchanging her manufactured products for food and raw materials, Europe could support far larger populations than would have been possible in the absence of industrialization and trade. However, several developments of major consequence have disturbed this division of labor. As we have already mentioned, the United States has now become the dominant manufacturer in the world. Further, some of the nations which formerly looked to Europe and the United States for manufactured goods are now becoming industrialized. Another important factor is the development of synthetic products. These have reduced the market for a number of natural products, for example, cotton and rubber. All these factors, and others, have changed the volume, composition, and direction of world commerce.

4. The Decline of Colonialism. Another development of great importance to Europe, but particularly to Britain and the Netherlands, is the decline of colonialism. People in the colonies of European nations no longer are willing to accept the economic subservience that their former status required. They resent the sharp contrasts between their own living standards and those of Europeans who direct enterprises in the colonies. They also resent what appears to be a draining away of their wealth to Europe. As a result, some European nations have found colonies to be a growing economic liability, instead of good markets for manufactured goods and dependable sources of raw materials.

The problem of the Netherlands in regard to the changed status in the East Indies provides an example of the problems which face nations with colonial empires. A major portion of Dutch national income formerly originated in the East Indies, and the rise of Indonesia as an independent nation has been a major threat to the Dutch economy. The United Kingdom has faced similar problems in regard to India and Burma, to name just two areas where the establishment of independent nations followed a long period of colonialism. France is encountering the same problems in French Indo-China. Such developments have resulted in a decline absolutely and relatively of European strength.

5. Unrealistic Rates of Exchange. The abandonment of the gold standard throughout the world created new problems pertaining to the rates of exchange between currencies. Devaluation, or the lowering of

the exchange value of a currency in relation to other currencies, was used as a weapon during the 1930's in the struggle between the leading trading nations to maintain exports in a shrinking world economy. Subsequently, exchange rates were "pegged" at levels which did not reflect realistically the relative purchasing power of the various currencies. This dislocation of exchange rates has influenced both the volume and direction of international commerce.

6. THE DOLLAR SHORTAGE. The world-wide dollar shortage of the years immediately following the Second World War was an intensification of what had actually been a problem for several decades. It is related to other problems listed here, but is of such consequence that it will be discussed separately. The world shortage of dollars will have to be solved if the commerce of the world, as well as that of the United States, is to flourish.

7. THE RISE OF COMMUNISM. The threat of communism has been world wide. Communism has taken advantage of the misery left in the wake of war and depression to make headway at a rate which would have been impossible in a less disordered world. Western nations realize the menace to their economic institutions from communism, and they have taken vigorous steps to cope with it. However, this menace has influenced international trade by raising production costs, endangering peace, and creating disturbances on every continent.

We shall investigate each of these world problems in considerable detail, but first let us describe the economic relations which are maintained among nations. We shall then be better able to discuss the economic problems of the world.

International economic relations. We have pointed to the fact that we live in a world economy. However, each nation still maintains its political autonomy. In fact, political independence is zealously guarded even at the price of economic advantage. Let us now examine the economic links that exist between the independent nations of the world. We can list them as follows:

1. TRADE. Nations buy and sell from each other. The buyer must pay the seller, so funds have to be transferred across international boundaries. Our next chapter will be devoted entirely to the subject of international trade.

2. INTERNATIONAL INVESTMENT. Citizens of one nation may find promising investment opportunities in other countries. American oil companies,

for example, are developing the petroleum resources of Saudi Arabia. British investors financed the railroads of South America. Such investments call for the original transfer of funds or capital goods from the country of the lender to that of the borrower. Later interest must be transferred in the other direction, and eventually the borrower must transfer the principal sum back to the lender.

3. Migration of Populations. Unrestricted immigration no longer is tolerated by any major nation. However, important transfers of populations still take place. Many persons would like to come to the United States, and as many do so as can qualify for entry. Canada and Australia have received large numbers of new citizens from England and elsewhere. When such migrations occur, economic ties are maintained with the home country. Funds are transferred back and forth. Capital may be taken along by the emigrants, and they often send funds back to relatives in the old country.

4. Foreign Travel. Important sums are spent for travel in other nations, particularly by Americans. Dollars spent by Americans provide an important source of funds with which foreigners can purchase goods in the United States.

5. Foreign Aid. The United States will have spent at least $40 billion to aid other nations by the end of the first decade after the Second World War. Much of the funds being advanced represent outright gifts.

International economic relations and world politics. A student of international relations is impressed by the noneconomic factors which frequently influence the trade, investments, and outright gifts which flow from one nation to another. For example, the clash between East and West is in large part political and philosophical, but much of the actual struggle for supremacy takes place on the economic front. During the period since the Second World War, both the western democracies and Russia have sought to develop the economies of nations within their spheres of influence. High levels of employment and income have been encouraged in order to demonstrate the superiority of their respective political philosophies. Further, each group of nations has kept an eye on military requirements in seeking to develop its productive capacities.

Other examples can be given to demonstrate the intermingling of political and economic factors in relationships between nations. The growth of American influence in Afghanistan after the Second World War is a case in point. The Afghan government, located on the Soviet border, felt it needed outside help in counteracting Russian influence.

The Afghans were aware that they had retained their independence in the past because of the rivalry between the Russians and the British in India. With the departure of the British, the Afghans have become increasingly pro-American. Americans have responded by stepping up their trade with this Asiatic country. They have bought most of the karakul furs, the main export of Afghanistan, and have supplied that country in large part with most of its imported capital goods and consumer goods. American businessmen constitute about half the foreign colony in Kabul.

The relationship between economic and political factors is not new. Trade has followed the flag, or the flag has followed trade, since the beginning of organized governments. Among the myriad examples that can be found in world history are the penetration of the British into South Africa, the economic aid extended by Britain to her allies during the period of the Napoleonic Wars, and the economic and military penetration of the Japanese into Manchuria and China. In our own case, we have refused economic aid to nations with conflicting political philosophies, but have proffered help to former enemies who were resisting communism. Our help to Italy, Western Germany, and Austria serves as an example.

Economic Cooperation among Nations

Efforts to solve major problems. Important steps toward establishment, or perhaps reestablishment, of a world economy were taken late in the Second World War and in the postwar period. Some of the efforts to reestablish a world economy were frustrated by the rift between Soviet Russia and the Western democracies. Despite this, an earnest attempt was made to solve the problems that throttled international cooperation after the First World War. One step in this direction was the formation of several important international agencies to aid in restoring the economies of the world by fostering world trade, by encouraging international investment, and by stabilizing exchange rates between currencies. Let us note the nature and functions of some of these organizations.

1. World Bank for Reconstruction and Development. The World Bank is an international lending institution with a capital of $8,263,100,000 subscribed by nearly fifty nations. The United States provided $3,173,000,000, or 40 per cent, and the subscriptions of other nations were based on their resources and their importance in trade. The chief functions of this bank, which is domiciled in Washington, D.C., are as follows:

a. To assist in the reconstruction and development of member nations. Immediately after the Second World War, the problem of reconstruction in war-torn countries was urgent, and the bank was authorized in its charter to make loans to aid in meeting this problem. Loans to develop backward areas also were authorized.

b. To promote international investment by guaranteeing private loans, or by participating in loans made by private investors.

c. To foster international commerce by encouraging international investment for the development of productive resources, and for raising living standards.

2. THE INTERNATIONAL TRADE ORGANIZATION. The International Trade Organization was founded under the auspices of the United Nations. Its objective is to promote the expansion of production, exchange, and consumption of goods and services, and to liberate international trade from the maze of restricting and discriminatory rules which have hampered it in recent decades. The ITO charter was signed by fifty-three nations Mar. 29, 1948. Subsequently, it went before legislative bodies in the signatory nations for ratification.

Much of the ITO charter was phrased in general terms and there were many loopholes. However, it was a highly constructive step toward liberating international trade and finance from the restrictions which developed in the 1920's and 1930's. Here are some of the general provisions of the charter:

a. Each nation recognizes the importance of keeping tariffs low and of preventing other trade restrictions.

b. ITO agrees to encourage the movement of funds, skills, and technology between nations.

c. The charter recognizes that conditions of stability and economic well-being within member countries are prerequisites for peaceful and friendly relations between nations. Therefore members agree to take action to achieve and maintain a high level of income and useful employment at home.

d. Members agree to move toward a mutual reduction of tariffs, and elimination of other barriers to trade. Although certain temporary exemptions are granted, there is a general prohibition of quotas and other absolute limitations on imports or exports.

3. THE INTERNATIONAL MONETARY FUND. The International Monetary Fund has as its objective the promotion of stability in rates of exchange. Its membership consists of the leading trading nations. These members

supply the capital for the Monetary Fund, and have the right to use its resources within limits agreed upon when its charter was drawn up at Bretton Woods in 1944. The actual size of the Fund depends upon the membership at any particular time. However, it originally was about $8.8 billion, of which the United States subscribed $2,750,000,000.

The Fund stands ready to help members meet temporary deficits in their accounts with other nations. A member which needs funds in the currency of another member can pay its own money into the Fund and take out the currency it needs. The Fund was created to meet emergencies, and is to be used only when exchange cannot be obtained through ordinary channels. It is not designed to provide members with long-term capital, and limits are placed upon the withdrawals of other currencies which a member can make.

By providing exchange in times of emergency, the Fund expects to make it unnecessary for a nation to curtail its imports drastically, or devalue its currency sharply and suddenly in order to eliminate an adverse balance of payments. Rates of exchange between the currencies of the member nations have been established under the auspices of the Fund. Members agree to confer with the Fund before altering these rates. Alterations of as much as 10 per cent are possible without consent of the Fund, but changes in excess of that amount cannot be made without approval. A member loses its privileges if it violates its agreement.

The Fund recognizes that disequilibrium may develop between currencies. When such difficulties develop, the Fund will help the member work out its exchange problem, if possible, without resort to drastic deflation or extreme devaluation of its currency.

Economic aid by the United States to other nations. Even severe critics of American economic policy can hardly deny that the United States has been generous to the remainder of the world. Our $16 billion Marshall Plan has been a major contribution toward rehabilitating Europe from the ravages of the Second World War. It has also helped check the spread of communism. Under the Marshall Plan, sixteen European nations, plus Western Germany, Austria, and Trieste, have received aid in the form of goods and services, purchased in the United States and elsewhere with funds supplied by the United States Treasury. The Plan started to function in 1948, and is scheduled to continue until 1952, when it was originally hoped that Europe would be able to sell as much abroad as it would need to purchase.

Funds supplied by the Marshall Plan have been used to purchase consumers' goods, raw materials, and capital equipment. By increasing the productive capacity and efficiency of Europe, it was hoped that the Plan would restore that continent to a self-supporting basis. The services of American technicians were proffered, and assistance was given in breaking down barriers to intra-European commerce. The improvement of transport was encouraged.

The Marshall Plan has often been pointed to as evidence of America's basic humanitarianism. There surely is much humanitarianism in it, but there are also purely economic reasons why the United States is willing to underwrite European recovery. Those who supported the Marshall Plan felt that an exhausted communistic Europe would be a major sore spot in the world's economy. Trading with a Europe entirely behind the Iron Curtain would be virtually impossible. A free and prosperous Europe, on the other hand, would be a good customer and a good supplier. Another reason for extending aid to Europe was political and military. A free, democratic, and united Europe would be an ally in event of the clash which communistic doctrine says is inevitable between communism and capitalism.

The Marshall Plan, however, is only one means by which the United States has given aid to Europe. The following tabulation of the aid supplied from 1944 to June, 1947, gives some concept of the scope of American assistance.

Table 38. Aid Provided by the United States from 1944 to June, 1947, in Millions of Dollars

UNRRA	$ 2,700
Military relief in occupied areas	3,000
Post V-J Day Lend Lease	2,500
Export-Import Bank	2,800
World Bank	3,175
International Monetary Fund	2,750
British loan	3,750
Surplus property credits	1,000
International relief, miscellaneous	350
Greek-Turkish aid	400
Philippine credits and grants	700
International Refugee Organization	75
Total	$23,200

Source: Compiled from United Nations data.

We note that the contribution of the United States to world economic rehabilitation and recovery, in this period, amounted to the significant sum of $23,200,000,000. Since this was not enough, and $16 billion in addition had to be provided through the Marshall Plan, it is clear that the world would have faced economic chaos if the United States had not been able to come to its rescue.

Rehabilitating a war-ravaged world. Our Economic Cooperation Administration, which handles the Marshall Plan, has encountered many situations which prove that even the giving away of billions in foreign aid provides many troublesome problems. One of the foremost is the securing of teamwork among the beneficiaries of the aid program. However, important lessons in cooperation have been learned by European nations through the activities of the Organization for European Economic Cooperation, formed to work out the allocation of Marshall Plan funds between the participants. The OEEC consists of the nineteen recipients of aid. These countries were required to submit plans for rehabilitating their economies, and to coordinate these plans. This was a new experience in Europe, where cooperation has been notoriously lacking.

Another type of problem was created by the unwillingness of both businessmen and workers in most nations of western Europe to accept the sacrifices which the postwar recovery program required. This became more evident after the initial drive toward recovery had lifted living standards above subsistence levels. Some labor groups sought to curtail their productivity on the supposition that employment could be spread, or made to last longer. ECA also found evidence that cartels sought to limit production in order to maintain prices as recovery progressed. Both practices were encountered at a time when non-European sources were being drawn upon heavily in order to spur recovery on that continent.

ECA also found it difficult to revive intra-European trade. Some attempts at cooperation in promoting trade, such as the Benelux Customs Union, were bright spots, but jealousies and rivalries handicapped cooperation. Some barriers to trade were removed under the pleading and prodding of ECA. Tariffs, customs regulations, and other types of protectionism are never easy to overcome. In spite of difficulties, achievements of the United Nations Food and Agricultural Organization were notable, and other organizations of an international character proved that economic cooperation is possible in peacetime.

Export of American "know-how." President Harry S. Truman proposed in his 1949 inaugural address that the United States take the lead in development of backward areas. His program, as later amplified, called for an increased export of American capital, but he also emphasized the importance of making available American technology to the remainder of the world. The basic objective of Mr. Truman's famous "Point Four" of his inaugural address was to raise living standards throughout the world. It was generally believed that the spread of communism would be checked if the peoples of backward areas suffered less from economic privation.

Even before Mr. Truman spoke the United States already had embarked on a program of exporting American "know-how." Our Agricultural department has administered agricultural programs in cooperation with fifteen or more Latin-American countries. Joint activities also were worked out with such distant countries as Afghanistan, Iran, the Philippines, Siam, and Syria. American industrial and managerial "know-how" also has been exported. For example, thirty-five British "productivity teams" came to the United States in 1949 to learn American methods. American experts spurred the postwar recovery program in the Marshall Plan countries, and in Japan, Greece, and Turkey. During the Second World War, much assistance was given to our allies in solving their industrial problems. United States statistical specialists, transportation experts, and bankers have been sent abroad in large numbers.

Europe's problem in world trade. The place of Europe in the world economy has changed tremendously in the first half of this century, although some of the seeds of Europe's current economic problems were sown much earlier. The most obvious cause of Europe's current economic plight has been two world wars, and a prolonged world-wide depression. The waste of material and human resources was frightful. Every nation was saddled with huge debts. Enormous increases in the money supply of most European nations have brought troublesome inflationary problems. The loss of overseas investments, some destroyed or confiscated, and others sold to buy war supplies, has cut off the interest and dividend income so important for meeting an excess of merchandise imports over exports.

Other complex problems have proved troublesome. The changing status of colonies, diagnosed elsewhere, has decreased income from abroad. The Iron Curtain throttled normal trade relationships between

eastern and western Europe. High military expenditures have increased the tax burden. Growing populations in most countries, despite wartime destruction and misery, have raised food and fiber requirements.

A long-term deterioration in Europe's position in the world economy has been developing for nearly forty years. We have noted the world-wide division of labor which developed during the nineteenth century. Europe's role was to supply manufactured goods to the rest of the world in exchange for foodstuffs and raw materials. Europe was the cradle of the transition from handicraft to machine methods of manufacturing. The Industrial Revolution began in England late in the eighteenth century, and spread to the continent after the end of the Napoleonic Wars. England was long known as the workshop of the world, and so she was until the last half of the nineteenth century, when she was challenged seriously by other European industrial nations, and by the United States.

European nations, particularly those in the West, depend more than ever on the sale of their manufactured goods, but their markets have been shrinking as other countries have become industrialized. This was evident in the years just before the Second World War. Normal trade relationships, of course, were disrupted during the war and early post-war years, so we must look at the long-term trends.

In 1870 one-third of all factory-made goods went into world trade. The proportion had fallen to one-fifth in 1913. In 1938 it had become one-tenth. Since 1913 the actual volume of trade in manufactured goods has been on the wane. Europe's share of this shrinking volume has fallen sharply over the past decade as markets could not be serviced during the war and early postwar years.

Why has Europe's position so badly deteriorated? The declining role of manufactured goods in world trade is due to the increasing industrialization of areas which formerly specialized in agriculture or mining. Industrialization has been spreading throughout the world in this century. It has been hastened by the two world wars which cut off non-European nations from their suppliers, and forced them to provide their own requirements for manufactured items. Europe's declining share of the available volume has been due to the rise of powerful new competitors. Chief among these has been the United States. Before the Second World War, Japan also had become a major competitor in many types of manufactured goods. For example, Japanese textiles had provided

severe competition in Asiatic markets, in South America, and in Africa.

England has been the most successful of all European nations in expanding her commerce since the Second World War. An austerity program at home and tremendous selling effort abroad enabled Britain to exceed her export goal of a one-third increase over prewar levels. Even this did not balance the adverse payments of Britain to the rest of the world. As early as the third postwar year, Britain felt growing competition from other nations.

Except for Belgium, continental European countries did not make as rapid a recovery in world commerce as had been hoped, despite the sharp recovery in their industrial production under the stimulus of the Marshall Plan. They consumed more at home instead of increasing exports. Powerful trade unions forced up wage rates and reduced the work week. Such factors increased the difficulty of competing on a price basis when the sellers' market of the postwar period subsided.

The Marshall Plan gave Europe a breathing spell in which to develop its productive capacity both from the standpoint of volume and efficiency. It has become increasingly apparent, however, that Europe will still have a deficit in its trade with the rest of the world when the Marshall Plan ends.

The decline of colonialism. Products of European colonies in Africa and the Far East have played an important part in developing the economies of the world. During the seventeenth, eighteenth, and nineteenth centuries England, France, Belgium, Portugal, Italy, and the Netherlands secured colonies in Africa and Asia. Trade with these colonies, in some cases under special privileges not granted to other nations, provided an important source of income for businessmen in the mother country. Production of raw materials and foodstuffs was encouraged. These materials either were sent to the mother country or sold in world commerce. Nationals of the mother country benefited more than natives because they owned the mines, plantations, and commercial establishments. Charges of exploitation often were made against colonial powers, but even critics had to admit that important benefits accrued to native populations.

The colonial system has been on the wane in this century. It has crumbled rapidly, however, in the period since the Second World War with the development of extreme nationalism in India, Burma, the Dutch East Indies, and French Indo-China. However, most colonial

holdings in Africa have been retained, except in the case of Italy, whose African possessions were seized during the war years.

The decline of colonialism can be attributed to a combination of economic and political events. The development of nationalism is a major cause. Japan's adaptation of western methods, and its rise as a world power, served to awaken nationalism elsewhere. Although educational standards of the masses remained very low, an intellectual class developed in most colonial areas and provided leadership for nationalistic movements. These new leaders protested the siphoning off to Europe of income earned in the colonies. They fanned widespread resentment against the differences in living standards of the natives and the European managers and officials who directed colonial enterprises. In their zeal, they often overlooked the sanitation systems, railroads, schools, irrigation systems, and other requirements of higher living standards provided by the mother country. Great Britain, for example, had been spending so much in development of backward areas that the economic value of the colonial system had long been questioned.

As more colonial areas were affected by the spread of nationalism, an important shift in trade developed. During the period of struggle for independence, production of these areas was curtailed. This happened in the East Indies, French Indo-China, and Burma. Subsequently, the development of native industries resulted in home consumption of raw materials that formerly would have been exported.

The changing status of the Far Eastern colonies had another important effect on world commerce. European nations, controlling the produce of Far Eastern colonies, were able to sell colonial products in world markets and secure foreign exchange needed to balance their own adverse trade with other nations. In other words, an export surplus in the colonies helped balance an import surplus at home. The loss of exchange generated in this manner has handicapped the rehabilitation of European economies.

International investment. International investment is essential if backward areas of the world are to be developed without the delays attached to the slow process of domestic saving. European capital, particularly British, helped build the transportation systems and many of the first factories of the United States. European capital has developed resources in Africa, Asia, and Australia. Since early in this century, American capital has been expended in almost every nation of the globe.

Capital will go abroad only when safety seems assured and when the prospective rate of return is larger than can be earned at home. The nineteenth century was a propitious time for foreign lending. Restriction on trade was inconsequential, and high profits were to be earned in many lands by investing in railroads, mines, merchandising, and many other fields. Heavy losses were experienced, however, in the period between the two world wars. In some cases, these losses were due to the expropriation by the national governments of the countries where the capital was invested. This happened in Mexico, for example. Restrictions against the withdrawal of interest or principal were imposed. Despite the retarding effects of such developments, the citizens of western European nations, Canada, and the United States still have large sums invested abroad. The foreign investment of the United States totals about $18 billion.

The export of capital may be of particular importance in the years ahead. We have seen that the level of investment must be high enough to absorb the difference between income and consumption in a high-income society such as ours. Otherwise full employment cannot be maintained. Investment opportunities abroad may serve to absorb savings which cannot be invested at home except at very low rates of interest. In fact, foreign investment has always been a means of matching savings with investment opportunities in a world where rates of consumption, savings, and industrialization differ so widely between countries. The stability of capitalistic countries with high levels of savings may depend at times on foreign investment opportunities.

A favorable atmosphere for international investment obviously is desirable. There are hazards in foreign investment not present in domestic investment, and therefore potential investors will be very sensitive to changing conditions in foreign countries. The flow of funds abroad may be both highly cyclical and erratic. Financial rectitude by local authorities is essential if a nation is to secure funds from other countries. Treatment must be fair in regard to taxation. Interest and principal payments must be met properly.

The rise of communism. The rise of communism in recent decades, but particularly in the period after the Second World War, has profoundly influenced international economic relations. The spread of communism into more and more areas has retarded foreign investment by Americans, Canadians, and others who have had funds to invest abroad. Feeding

on human misery, communism has created turmoil and dissension in precisely those areas where cooperation and hard work were most needed to raise living standards. In numerous instances, workers have been encouraged to make demands upon employers and governments quite inconsistent with existing levels of productivity. Such demands have been too often enforced by unions under communistic domination. Production costs have been raised and the competitive position of such employers, and such nations, thereby damaged. Domestic investors have been reluctant to provide capital in those nations where communism had a foothold.

The western democracies did not accept the spread of communism without challenge in the postwar period. Americans became more willing to open their purse strings for foreign-aid programs. The Canadians also were generous in assisting other nations. The hard-pressed British made enormous sacrifices. In all the western democracies, military expenditures were far larger than they would have been if communism had not been such a threat to the institutions, peace, and security of the world. Funds spent for military purposes are not available, of course, for factories and equipment which will produce civilian goods and services.

In short, the spread of communism slowed the rehabilitation of the world after the Second World War. It slowed the development of backward areas by creating turmoil which retarded production and kept away foreign investors. Large military outlays became necessary. These could better have been devoted to capital expenditures beneficial to the civilian economies of the nations forced to spend for armaments. Costs of production increased so much in some nations that their competitive positions in international commerce were impaired. The increase in costs often could be attributed directly to pressures exerted by unions under the domination of communism. The drawing of the Iron Curtain across Europe closed normal channels of intra-European trade, as well as commerce between non-European nations and those within the Russian orbit.

Settling Balances between Nations

Balance of payments. Both goods and services enter into world commerce. A nation's international account is in balance when what it owes in any period for purchases abroad is equal to what it is owed because

of its sales to other countries. Frequently, the layman focuses his attention solely on exports and imports of merchandise. It is sometimes said, in fact, that we have a favorable balance of trade when we export more goods than we import, or an unfavorable balance when the reverse is true. However, we shall see that much more enters into a balance of payments than physical items.

It is important to have a clear understanding of the components of a nation's international accounts. We can classify as export items anything for which we receive payments from foreigners. Exports can be further divided into visible and invisible items. Visible exports are physical goods. They can be seen, weighed, and handled. Invisible items are intangible, but important nevertheless. Invisible exports include the services of capital invested abroad, for which Americans receive interest and dividends; travel by foreigners in the United States; educational services provided here for foreign students; expenses of foreign diplomats in the United States; and various shipping, insurance, and financial services provided for foreigners by Americans.

Imports are anything for which we may make payments to foreigners. Visible imports are merchandise. Invisible imports include the services of foreign capital in this country, for which we pay interest and dividends to foreigners; travel of Americans abroad; expenses of our armed forces abroad; remittances which immigrants to the United States send to friends and relatives abroad; expenses of our diplomats abroad; and various shipping, insurance, and financial services for which we must pay foreigners.

A nation's trade is in balance when the following situation exists: Visible exports + invisible exports = visible imports + invisible imports.

A nation can export more goods and services than it imports only if it is lending to foreigners, making gifts to them, or acquiring gold. Imports can exceed exports only if a nation obtains loans from foreigners, sends gold abroad, or receives gifts.

A country's trade does not have to be in balance with every individual nation. The important thing is to achieve a balance with the outside world as a whole. When bilateral trade is practiced, the objective of a trading nation is indeed to achieve a balance with every other individual country. However, multilateral trade far better promotes the economic well-being of the world. Under this system each nation is likely to have an unfavorable balance with some countries and a favorable balance

with others. This, however, does not matter so long as total imports and exports are in balance.

Rates of exchange. The rates of exchange between currencies are prices. An American businessman, for example, has an obligation to settle in England. He must pay in British pounds; he possesses American dollars. Therefore, he must exchange dollars for pounds. In his morning newspaper, he notes that the British pound is quoted at $4. This means that he can buy a British pound for $4. As far as the businessman is concerned, the $4 is a price which he must pay when he wishes to acquire British currency.

Before the First World War, exchange rates were fairly stable because most trading nations adhered to the gold standard. This was also true during part of the period between the two great wars. If the principal monetary unit of each nation is defined as containing a certain amount of gold, their normal exchange rates are automatically established. For example, the British pound before 1933 contained 113.0016 grains of fine gold; the dollar had 23.22 grains. The rate of exchange between the dollar and the pound was automatically established by dividing the gold in the pound by the gold in the dollar as follows: $113.0016 \div 23.22 = 4.8664$. In other words, the normal, or par, of £1 was $4.8664.

Whenever the actual rates of exchange drifted away from this level by more than the cost of exporting or importing gold, flows of gold would set in motion the processes which restored an equilibrium of trade and payments. This will be discussed in detail in a later section. In the absence of a gold standard, the normal rates of exchange between currencies can be estimated through a comparison of price levels. Suppose that the price of wheat in the United States is $2 a bushel. This means that you could get only ½ bushel for $1. Let us assume that in England you can buy 2½ bushels of wheat for £1. Obviously £1 is equivalent to $5, in so far as wheat is concerned. A better picture of relative purchasing power would be given by comparing prices in England and the United States of a group of internationally traded commodities.

The problem of "hot money." Another problem affecting exchange rates developed as the troubled 1930's progressed. This was the problem of "hot money." It resulted in part from the threat to property rights which became widespread in the economic sore spots of the world as the

depression deepened. It also could be attributed in part to the rise of totalitarianism and the threat of war in both Europe and Asia. The result was a desperate effort by wealthy individuals to transfer their capital to places of safety. Often they sold their property and tried to exchange the proceeds for a safer currency. If this could not be done, they purchased gold, jewelry, or securities which they tried to transport away from the trouble spots.

The democratic nations, which also were those least threatened with economic disaster, felt the full impact. During periods of crisis abroad, such as a war scare or a threatened devaluation, they experienced an abnormal demand for their currencies as funds were transferred to them from the danger zones. When fears subsided, these funds were often withdrawn as suddenly as they had come. It is little wonder that the term "hot money" was applied to such funds when their transfer brought sudden and unpredictable shocks to a nation's exchange rates. We can understand the strong urge to control exchange rates when a nation's balance of payments is being disturbed by transfers of "hot money."

Adjustments in exchange rates under the gold standard. Prior to 1914 most trading nations of consequence adhered to the gold standard. As a result, any lack of balance in international accounts was adjusted automatically, and with a speed that was astonishing, by an inflow or outflow of gold. An attempt was made during the 1920's to restore the gold standard, but this ended in failure when the events of the great depression in the 1930's forced most nations to abandon this standard or to cripple it with restrictions that prevented it from functioning. In Europe any vestiges of it were destroyed with the coming of the Second World War.

The gold standard in its day performed the useful functions of helping to maintain equilibrium in world trade and hence in international payments, and also of providing stable exchange rates. This greatly reduced the hazards of international trade. Further, it forced nations to be realistic in domestic money policies. Unsound domestic policies would result in an adverse balance of payments and an outflow of gold. The result would be a deflation which all could attribute to the correct cause. Let us see how the gold standard performed its role.

The gold standard performed its task of balancing trade and payments through the effect on the domestic money supply of inflows and outflows of gold. A gold-standard nation suffers a decline in its money

supply when it loses gold. This happens for a variety of reasons. In a gold-standard country, some currency actually is gold coin or gold certificates which can be exchanged for gold. When gold is shipped abroad, there is an immediate and direct decline in the supply of currency, coin, or its equivalent.

Still more important, the export of gold means the loss of domestic monetary reserves. For example, deposits in central banks, such as our Federal Reserve banks, must be secured by gold. In the United States, the Federal Reserve banks must hold 25 per cent in claims to gold against their deposits and currency. Unless a surplus of gold was held, a loss of gold by export would require a multiple reduction of the deposits which the Reserve banks could hold, and the currency they could have outstanding. Since deposits in the Reserve banks constitute the reserves of the banking system, a reduction of these reserves would require a much greater cut in the deposits of the commercial banks. A reduction in commercial bank deposits means a reduction in the money supply, since these deposits constitute our principal kind of money.

The reduction in the money supply, resulting from the export of gold, is likely to bring about a decrease in money incomes, and in the price level of domestic commodities and services. Since we are assuming a world-wide gold standard, the prices of internationally traded commodities such as wheat, cotton, copper, and the like would tend to remain about the same in all countries. If free trade were permitted the only difference that could exist would be due to shipping costs and tariffs.

A fall in the prices of domestic commodities, and stable prices for internationally traded items, would make the international goods relatively expensive. Two events would follow. Domestic consumers would buy less international goods. This would tend to reduce imports. Lured by relatively high prices, home industries would concentrate on production of international commodities which could be sent abroad for sale in world markets. The reduction of imports would cut down the volume of payments to be made abroad. The increase in exports would mean a rise in payments which foreigners must make to Americans. An inflow of gold would be initiated.

Now let us see what happens to reverse an inflow of gold. As gold pours into the country, the money supply rises. More gold currency becomes available, but still more important, the gold base of the mone-

tary system is increased. The gold reserves of the Federal Reserve banks are increased. The enlarged reserves can support more deposits in the Reserve banks and more gold-backed currency in the form of Federal Reserve notes. Thus the reserve deposits of the commercial banks in the Federal Reserve banks can be expanded, and these in turn will support larger deposits for the public in the commercial banks.

The increase in the money supply normally would be accompanied by a rise in money incomes and prices. However, prices of internationally traded commodities, being determined in world markets, hold virtually unchanged. Thus international commodities become relatively cheap in relation to domestic commodities. Two results follow. One is that producers, noting the high prices of domestic commodities, favor their production over international items. Smaller quantities of international goods are produced for export or for home consumption. However, the demand for international commodities is increased because of their relative cheapness, and imports of such goods tend to rise. Hence exports tend to decline and imports to rise. Smaller payments need to be made by foreigners and larger payments must be made to them. The inflow of gold halts and the outflow begins.

In summary we have seen that a gold standard tends to equalize the imports and exports of a nation. An excess of exports brings an inflow of gold. The resultant rise in prices of domestic goods in relation to international commodities causes the excess of exports to be reversed. Eventually an import surplus appears and an outflow of gold begins. But prices of domestic commodities decline in relation to international goods; the outflow of gold is checked and eventually turns into another inflow. Whenever an excess of either exports or imports appears, gold flows are set in motion which tend to correct it.

Such adjustments as we have described take place automatically only when allowed to do so without government interference. It is possible for a government to impede the functioning of the gold standard by interfering with the import or export of gold or by imposing various regulations on the export or import of commodities. Why would the government want to interfere with the smooth functioning of the gold standard, which appears to provide stability of exchange rates and a balance in trade? A multiplicity of reasons can be cited.

Gold drains, for reasons we have examined, usually are accompanied by falling prices, lower incomes, and unemployment. Depressions are

unpopular, and most governments have accepted the responsibility of maintaining a high level of domestic employment and incomes. By prohibiting an outflow of gold, one cause of declining incomes and prices can be eliminated. Usually this would have to be accompanied by restrictions on imports, either direct through outright prohibition or indirect through sharp tariff increases.

The problem might be attacked in another way. As deflation threatened, due to an outflow of gold, expansionary policies might be instituted by the monetary authorities. These would be designed to increase the money supply by an amount necessary to offset the decrease in money attributable to the loss of gold. However, this action would prevent the reversal of the gold outflow. A nation would have to prohibit the export of gold or lose all its precious metal. In either case it would be forced off the gold standard.

Despite the fact that inflations are pleasant in their early stages, most nations are reluctant to see heavy imports of gold and a run-up in domestic prices. This is especially true if the monetary authorities believe the gold will flow out again for reasons other than a reversal in the terms of trade. For example, much capital was sent to the United States for safekeeping during the years preceding the Second World War. The permanency of such funds seemed doubtful.

Monetary authorities know that under the gold standard inflows of gold will be followed by outflows if the authorities do not interfere. Depressions will follow booms. The more exaggerated the boom, the more severe is the depression. By offsetting the inflow of gold, monetary authorities hope to prevent an excessive inflation. They can do this by various monetary measures. They can, for example, sell government securities in an amount equivalent to the gold inflow and draw the proceeds into the central bank. This forces a reduction in the money supply equivalent to the increase caused by the gold received from abroad. They might increase reserve requirements of member banks. In so far as the inflow of gold is due to an export surplus of goods, such measures will prevent the reversal of the flow from taking place.

An automatic gold standard may be incompatible with efforts to stabilize domestic incomes and employment at a high level. It also is incompatible with efforts by the government to stimulate exports and restrict imports, or to support the prices of internationally traded commodities such as wheat or cotton under conditions of free trade. For

example, we could not have a gold standard and keep prices of such commodities above the world level. If the government succeeded even temporarily with a price-support program, it would merely accumulate large surpluses which eventually would have to be destroyed or sold abroad at prices determined by supply and demand in the world market. Restrictions on imports would have to be enforced if domestic prices were to be maintained above the world level. This is merely to reiterate that price controls or restraints on trade tend to prevent a gold standard from functioning.

The chaos of the twentieth century has created conditions which hamper the free working of the gold standard. The productive capacity of major segments of the world has twice been damaged by the most destructive wars in history. Between these two wars was one of the most severe world-wide depressions on record. We have already cited the destruction of the long-established world division of labor, as manufacturing capacity has been dispersed. Colonialism as a world institution has been weakened. We have noted the growing economic dominance of the United States.

The net effect of these diverse elements has been to impair the relative balance in the world economy that existed until about the First World War. The misery and poverty caused by two wars and a major depression have created a mania for security in employment and incomes. This has been reflected in an unwillingness to let the gold standard take its deflationary course if an import surplus initiated an outflow of gold. The existence of "hot money" has made the normal functioning of the gold standard more difficult. If the gold standard ever is to be restored, it must be in a more stable world where we will accept the discomfort of periodic deflation if that is necessary. It should be added, however, that more normal world conditions would minimize the risks inherent in a gold standard.

International economic relations under automatic independent standards. Some of the advantages of the automatic gold standard possibly can be retained even when the monetary systems of the leading nations are independent of gold. Most nations now operate on a paper standard under which the only real backing of money is the faith of the people in the integrity of the government and in its ability to maintain the purchasing power of currency and bank deposits by avoiding overissue. A reasonable degree of stability in exchange rates and the balance of

payments can be attained by nations with independent standards if exchange rates are allowed to fluctuate without too much government interference. We must hasten to add, however, that economic and political confusion in world relations would prove to be a major impediment to such a standard just as in the case of a gold standard.

When independent currencies are allowed to fluctuate, rates of exchange are determined by supply and demand, just as any other price is established under similar conditions. Let us base our analysis on the assumption that the United States and another large trading nation have independent currencies and mobile exchange rates. If the United States has an export surplus, foreigners will seek to acquire its currency to settle their obligations to Americans. The price of United States currency will rise in terms of foreign money as demand increases.

By way of a hypothetical example, suppose the British were required to give up only 1 British pound to get 4 dollars, at a time when trade between the two nations is about in balance. Now assume that Englishmen start to buy more in the United States than they sell there. They must pay out more dollars than they are receiving from the sale of their own goods to Americans. After the American surplus of exports becomes important, bidding for American money might force up the price of dollars so much that 2 pounds are needed to get 4 dollars. The student must remember that no nation now would tolerate such drastic fluctuations in its exchange rates. The example, however, illustrates the process.

The shift in exchange rates would tend to eliminate the export surplus. Englishmen, of course, would find prices of international commodities very high in the American market. They would seek to buy international commodities where their own currency had more favorable exchange relationships. This in itself would tend to reduce the volume of United States exports; but other forces also would be at work. Because of the exchange rates, the international commodities produced in the United States might be relatively dear compared with those produced abroad. Using our same example, Americans would now have to give up only $2 to acquire £1 where formerly they had to pay $4. With domestic prices holding about the same, it obviously would be cheaper to buy such commodities abroad. Thus imports would rise at the same time exports were falling. The export surpluses would turn into a surplus of imports.

If we begin our analysis with a United States import surplus, we also can see how a change in exchange rates will tend to restore balance.

Faced with heavy payments abroad, Americans would bid up the price of foreign currencies. Again let us start with a rate of exchange between the pound and dollar of $4 = £1. Because large quantities of pounds must be acquired, the relationship, let us assume, becomes $8 = £1. Americans will now find international goods acquired abroad too expensive in terms of United States currency. They will buy less abroad. At the same time foreigners will want to buy international goods produced in America because they enjoy favorable rates of exchange between American money and their own. Thus United States exports will tend to rise while imports are falling.

We have assumed here that the importer always had to acquire foreign funds to make payments abroad. For example, we pointed out that Americans bid up the price of pounds because the United States was buying more from Britain than was being sold to that country. Our analysis might imply that international obligations always are settled in the currency of the seller. That need not be the case. British sellers could agree to accept American currency. From here on, the analysis would be the same as just presented. Assuming a surplus of imports in the United States, British exporters would want to transfer American currency into British funds. They would become sellers of dollars and buyers of pounds. This would force the price of the pounds up just as was done by the efforts of American importers to acquire British money.

Stabilization funds. During the 1930's several of the leading trading nations operated stabilization funds which were designed to prevent sudden and drastic movements in exchange rates. Such movements often were associated with the "hot money" already discussed in this chapter. Fluctuations due to flights of capital abroad, or other unpredictable causes, could be smoothed out by a stabilization fund which consisted of gold, national currency, and foreign funds. The United States, Great Britain, France, Belgium, and the Netherlands operated such funds.

A stabilization fund assists in the orderly transfer of international balances which otherwise might cause important fluctuations in the exchange rates of the national currency. For example, suppose a large balance in British funds had to be exchanged for dollars. The Exchange Equalization Account, as the British fund was called, might sell dollars and buy pounds at a support price if this was needed to prevent a dip in the exchange value of British money. If a large amount of "hot money"

sought refuge in Britain, the fund might sell pounds and buy the foreign currency.

Stabilization funds served well during a chaotic period in the world's international economic history. The value of such funds rests on the fact that they can prevent "nonfunctional" moves in exchange rates, while allowing fluctuations which really reflect alterations in the terms of trade between nations. There is much to be said for flexibility in exchange rates if sudden and nonfunctional changes can be prevented. The International Monetary Fund has been criticized for the rigidity which it imposes on exchange rates.

The dollar shortage. The shortage of dollars has been a perplexing problem. Acquisition of American goods by foreign nations in large volume has been made possible during the postwar period only through the various aid programs of the United States. Solution of this problem is necessary if world trade is to flourish.

The dollar shortage was dramatized in the postwar period by the desperate need for American goods throughout the whole world. However, the dollar shortage has been chronic since 1914, when the First World War disrupted long-established economic relationships between nations. Since that time the world has consistently bought more from the United States than it has sold to this country. The result has been a shortage of dollars, and a bridging of the gap by American gifts and loans, or the purchase by the United States of foreign gold.

During the 20 years between world wars, the dollar deficit of the rest of the world averaged between $2 and $3 billion a year at 1949 prices. The cumulative dollar deficit for the 1914 to 1949 period, which includes both wars, is in excess of $100 billion. Of this about $80 billion was loaned by the United States or given away. Assistance of various kinds to foreign nations has amounted to more than $60 billion during and since the Second World War.

Why does the dollar shortage persist in peacetime? Europe accounts for almost all the deficit between the rest of the world and the United States. We have already described the deterioration of Europe's position in world commerce. We have also pointed out the world dominance of the United States in productive power. High American tariffs have in the past served to discourage American imports.

The essence of the dollar-shortage problem, however, lies deeper than many of the more obvious explanations which have been offered from

time to time. Since the end of the First World War, more and more nations have sought to "manage" their currencies in order to stabilize domestic incomes and employment at high levels. It is true that an attempt was made to revive the gold standard after the First World War, but most nations left the gold standard as the great depression deepened in the early 1930's. Even the leading trading nations tried to "peg" their rates of exchange at levels which they regarded as most advantageous to their domestic economies, regardless of relative price levels or a change in the relative economic importance of different countries. The desire for stability in recent years, therefore, has been an important factor in maintaining exchange rates no longer consistent with balance in the flow of world commerce.

Thus the core of the dollar problem is found in the lack of realism in establishing and maintaining rates of exchange since the world abandoned the gold standard. The gold standard became unworkable with the start of the First World War. We can virtually ignore the brief interlude when the gold standard was revived in the 1920's. The American price level has been consistently low compared to that in most countries, and particularly in relation to prices in European nations. The inflation abroad during the First World War was generally more severe than ours, and the resulting disparity of prices was further increased by the fact that the American deflation in the 1930's was greater than that abroad. Again, in the Second World War the inflation in the United States, while severe, was outdistanced abroad. Gold flows would have brought about an automatic adjustment of such price disparities, if the gold standard had prevailed, as it obviously could not under the circumstances.

Under a system of mobile, independent currencies, disparities in the price levels of the various countries would have resulted in exchange rate adjustments. But such adjustments could not take place because of the "pegging" of exchange rates by governments. We neither have the gold standard nor flexible exchange rates. Instead, the monetary authorities in the various nations have sought to maintain rates of exchange that would most benefit their own economies in the short run.

The result is that the exchange value of the dollar has remained relatively low in view of existing price levels. Stated another way, the price of dollars in the foreign exchange market has been "pegged" below what marginal buyers would have been willing to pay in a free market. The

cheapness of the dollar has meant that American goods have been relatively inexpensive. A shortage of dollars is inevitable when dollars have constantly been made available to foreigners at lower prices than they would have been willing to pay in a free market in view of the available supply. In reverse, most foreign currencies have been relatively dear in American funds. The incentive to import has thereby been decreased.

What is the solution? If international trade is to flourish, the world must have exchange rates which reflect the relative buying powers, and hence the relative supply and demand, of the various currencies. This could be attained through a flexibility of exchange rates which would permit automatic adjustments as price levels fluctuated, or as other relevant changes occurred in economic relationships. Return to the gold standard, which would permit automatic adjustments, is unlikely. In view of the world-wide desire for internal national stability, freely mobile exchange rates are not acceptable to most nations. Therefore, the only solution appears to be the adjustment of exchange rates to realistic levels through the International Monetary Fund. Otherwise, international trade will continue to be in a chronic state of unbalance.

An important step toward the establishment of realistic exchange rates was taken in September of 1949 when leading trading nations devalued their currencies in terms of the American dollar.

Summary and Conclusions

We have discussed the problems of a world economy, and we have noted the many barriers in the way of a flourishing international commerce, a high level of foreign investment, and the development of backward nations. The unwillingness of the trading nations to face the exchange-rate problem realistically long handicapped international economic relations. The destruction of two major wars and a great depression created problems that still must be met. Backward areas remain to be developed.

The role of Europe in the world's economy has been affected profoundly by important developments in this century. The relative importance of manufactured goods in world trade has declined as more and more of the world has become industrialized. Europe must sell her manufactured goods in order to acquire foodstuffs and raw materials. The decline of colonialism, and the sale of foreign investments to finance

two major wars, has meant the loss of income from abroad. The rise of communism has increased production costs, and forced maintenance of expensive military establishments. Impediments to immigration by sparsely settled nations have prevented the draining off of surplus populations. The problem of making Europe self-supporting perplexed the best brains among statesmen and economists.

The amount of foreign aid supplied by the United States has been staggering. There is no doubt that assistance to other nations in the postwar period has prevented the economic chaos which would have opened the door to communism. However, the United States can hardly be expected to shoulder such a burden indefinitely. Obviously, Americans have a big stake in developing a flourishing world economy.

The world has made important progress toward solving its economic problems. We have noted the important institutions set up to foster trade, develop backward areas, and promote stability in exchange rates. An important step in progress has been the realization by Americans that no nation can live in economic isolation from the remainder of the world.

The economic relations between nations will be most successful if the following objectives can be attained:

1. The maintenance of peace between nations, so that the productive capacity for peacetime purposes can be developed.
2. The stabilization of employment and incomes at high levels.
3. The maintenance of tariff barriers at a low level so that a worldwide division of labor can be fostered.
4. The establishment of exchange rates that reflect the terms of trade between nations.
5. The encouragement of international investing through the granting of protection to foreign capital against expropriation.

If these objectives are fulfilled, the world will enjoy a flourishing commerce which will be beneficial to all participants. In the next chapter we shall investigate the specific problems of international trade.

Review Questions

1. Describe the major shift which has been taking place in American thinking on international economic relations.

2. What effect has the world-wide quest for stability had on the economic relations between nations?
3. Why would a return to isolationism by the United States be an economic disaster for the rest of the world?
4. Describe the changes which have taken place in the world division of labor. What have been the effects on international economic relations?
5. What are the principal types of economic relations between nations?
6. Describe the connection between politics and economics in the relations between nations.
7. Explain the objectives of the World Bank for Reconstruction and Development.
8. What are the functions of the International Trade Organization?
9. Describe the objectives of the International Monetary Fund.
10. Why was the United States so generous in extending aid to the remainder of the world in the years after the Second World War?
11. What goals were mentioned by President Truman in the famous "Point Four" of his 1949 inaugural address?
12. Why was Europe's plight so severe in the period after the Second World War?
13. Explain the effect on European economies of the decline of colonialism.
14. What is meant by the balance of payments between nations? Enumerate what makes up the import and export items in a nation's international economic relations. Be careful to distinguish between visible and invisible items.
15. What is meant by multilateral trade in contrast to bilateral trade?
16. Describe the determination of exchange rates under a world-wide gold standard. How can normal exchange rates be determined in the absence of a gold standard?
17. What are the advantages and disadvantages of flexible exchange rates?
18. Describe the effects of inflows and outflows of gold in bringing a balance of trade between gold standard nations. Can such a balance be achieved in the absence of the gold standard?
19. What role is played by stabilization funds in international economic relations?

20. Describe the major objectives which first must be reached if the economic relations between nations are to be most fruitful.

Problems

1. Before the great depression of the early 1930's, parallel movements in business conditions in industrial countries were common. Although the timing was not absolutely precise, prosperity and depression occurred everywhere at about the same time. After about 1932, this tendency toward synchronization was less pronounced. How can you explain the decreased parallelism of economic movements after the early part of the great depression?

2. Make a list of all the advantages a nation might attain from devaluation of its currency. Also make a list of the disadvantages. Which list seems to you to be most convincing? Would the composition of a nation's imports and exports have an effect on the advantages or disadvantages of devaluation? Defend your answer.

3. Study the annual reports for the latest year of the World Bank and the International Monetary Fund. What specific actions did they take during the year for fulfilling their objectives?

4. The suggestion has been made that the richer countries should require foreign lending to take a contracyclical form. This means that lending would be increased during depressions and diminished in booms. What advantages would accrue to the lender if such a policy were adopted? To the borrower? Does the idea seem practical? Defend your answer.

Suggested Readings

Adams, Walter, and Leland E. Traywick: "Readings in Economics," The Macmillan Company, New York, 1948, Chap. 29.

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"Economic Stability in the Postwar World," Report of the Delegation on Economic Depressions, League of Nations, Geneva, 1945, Chaps. 13, 17.

Patterson, S. Howard, and Karl W. H. Scholz: "Economic Problems of Modern Life," McGraw-Hill Book Company, Inc., New York, 1948, Chaps. 11, 12.

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14. International Trade

The importance of international trade in raising real incomes throughout the world can hardly be overestimated. No nation is self-sufficient. Most countries are far from being so. They must import a wide variety of goods and services or living standards of their citizens are impaired. In order to obtain vital imports, they must sell their own goods and services abroad. We can tabulate as follows the roles which trade plays in making possible higher living standards than otherwise would exist:

1. For nations which are chiefly producers of raw materials, trade is the means of securing manufactured goods.

2. Large industrial nations find trade essential for two reasons; it is a way to get foodstuffs and raw materials, and it is a means of maintaining a high level of employment.

3. Trade is the only method whereby "have-not" nations can secure essential goods. A nation may be unable to produce its own requirements of an important commodity because it lacks the necessary natural resources. Climate also may account for its inability to meet its own requirements.

4. Trade enables nations to specialize in goods and services they can produce most efficiently. If all nations do this, the entire world can attain a higher standard of living than otherwise would be possible.

Problems of international trade. In Chap. 13 we indicated the numerous problems that arise when nations maintain economic relations with one another. Many of these problems are directly related to commerce. In this chapter we shall investigate how the world can benefit most from trade. We also shall survey the international trade of the United States. In order to arrive at sound conclusions, we shall have to answer such questions as the following:

1. How can we overcome the difficulties which naturally develop when trade is carried on across national boundaries?

2. What determines the most advantageous type of imports and exports for a nation?

3. How can both Americans and nationals of other nations be made to understand the basic fact that exports can only be enjoyed in the long run if a nation also imports?

4. What tariff policy should each nation pursue in order best to reconcile its own interests with those of other countries?

5. What role must be played by the United States if the commerce of the world is to benefit most?

Domestic versus international trade. Some of the problems of carrying on international trade have been indicated. They are problems which do not appear when trade is carried on within the boundaries of a single nation. Let us begin our discussion of world commerce by distinguishing five factors which differentiate domestic from international trade.

1. Autonomous Currencies. Each nation has its own national currency. When balances must be settled between residents of different nations, an exchange of currencies must take place. As we saw in the preceding chapter, this increases the hazards of commerce.

2. Greater Transport Costs. Goods sent abroad often have to be transported greater distances than those sold in the domestic market. Therefore, transportation costs are higher. This is not necessarily true when goods are exchanged by nations with adjoining boundaries like the United States and Canada, but it applies to trade between continents.

3. Barriers Created by Tariffs or Other Restrictions of Trade. High tariffs or other trade restrictions impede the flow of goods across international boundaries. Similar impediments are not found in domestic trade. Other restrictions may take the form of quotas on the importation of goods, or allocations of limited amounts of foreign exchange for the purchase of foreign goods.

4. Immobility of Labor. As we have indicated, few nations allow unrestricted immigration. This means that unemployment can persist for long periods in some nations at the same time that labor is in short supply elsewhere. Such disparities of employment opportunities discourage a flourishing trade. Nations with high unemployment are poor markets. Moreover, they often impose restrictions on imports in order to preserve home markets for their own industries.

5. Reluctance of Capital to Move across International Boundaries. A higher rate of return usually is required to induce capital to seek investment abroad. The danger of expropriation by foreign governments became of great consequence during the 1930's. There also is the problem of securing redress in foreign courts in case of default. High profits often have brought charges of exploitation. There also is the difficulty of transferring funds from one country to another in a world where exchange transactions are controlled by governments.

Self-sufficiency and international trade. The world's trade was impeded in the period between the two world wars, and particularly after 1930, by the effort of many nations to attain self-sufficiency from an economic standpoint. Experiences of the First World War, when the usual channels of trade were closed, made many nations seek to protect themselves from excessive dependence on imports. This strong move toward self-sufficiency can be attributed to several causes. Let us enumerate them:

1. Industrialization. In the preceding chapter we mentioned the growing industrialization of the world, and the smaller flow of manufactured goods in world commerce. Tariffs were often established to protect domestic industries from foreign competition as export markets dried up. The industrialization of areas outside the fighting zones was hastened by the two world wars, when normal sources of supply were cut off.

2. Development of Synthetics. The applications of chemistry to industrial problems has resulted in the development of synthetics which have replaced some products that formerly bulked large in world commerce. Nylon has taken an important share of the market for silk. Synthetic rubber has replaced natural rubber in some uses, and, as was demonstrated during the Second World War, can serve for most purposes if necessary. Also nitrates made by the electrolytic process have largely replaced the natural product, most of which was obtained from Chile.

3. Depression. Efforts of some nations to attain economic self-sufficiency can be attributed to depression or fear of depression. We have commented upon the international propagation of depressions through trade. A nation depending on agriculture or mining may desire to industrialize in order to insulate itself against depressions which originate abroad. Such countries have seen their markets disappear during depres-

sions. When their agricultural products or minerals cannot be sold, they cannot buy manufactured goods. They have, therefore, a strong incentive to develop domestic sources of supply.

4. FEAR OF WAR. Fear of war creates a strong desire to develop self-sufficiency. A nation at war often cannot import the products it needs for either military purposes or domestic consumption. Hence a nation which expects to be drawn into war will seek to decrease its dependence on imports.

It is difficult to measure the relative importance of these four factors, but they all were at work in varying degrees in the interwar period. They all contributed to the contraction of trade during the 1930's. There is evidence that they again must be reckoned with in this postwar period.

INTERNATIONAL TRADE, PAST AND PRESENT

Commerce long important. Commerce between peoples residing in distant areas has been conducted for thousands of years. The ancient nations engaged in trade, and some of the earliest voyages of which we have records were taken for trading purposes or to develop new trade routes. We know that the Egyptians, the Hebrews, the Assyrians, and the Persians were active traders. However, the most famous of the ancient trading nations was Phoenicia, whose merchants carried on a flourishing trade more than 1,000 years before the Christian era. The achievements of this tiny country illustrate how a small nation, almost devoid of natural resources, can become an important power through commerce alone. It is a record which has been repeated numerous times in more recent economic history.

Phoenicia was a small country located on the eastern shore of the Mediterranean, in part of what is now Syria. The country consisted principally of a coastal plain, which was only about 28 miles long and 1 mile wide, but which had several good harbors. Its principal cities were Tyre and Sidon, names well known to students of ancient history. Immediately to the east of the Phoenician plain were the Lebanon mountains. The people of Phoenicia had no alternative but to turn to the sea for a livelihood.

Trading vessels of Phoenicia roamed the Mediterranean and the Black Sea. They sailed through the Straits of Gibraltar, and visited England, where they obtained tin. They sailed along the coasts of Africa. Records

are incomplete, but they may have visited both North and South America. It is believed they traded with India. They founded many colonies, including Carthage, which was a leading trading nation for centuries after the mother country declined in influence.

During the period of their prosperity, the Phoenicians traded in the products of all the then known world. The renowned purple dye, manufactured in Phoenician cities from shellfish, was an important article of export. Various articles of gold, iron, silver, and brass were sent abroad in exchange for foreign goods. A large traffic in slaves was also handled.

In medieval times Venice, Genoa, and some of the other Italian cities achieved relatively high standards of living through a flourishing trade. Venetian trading vessels called at most of the world ports known to western Europeans. There are some indications that Venetian vessels visited North America. The military forces of the republic waged open warfare with any state which menaced its trade routes. The warehouses of the city were filled with the products of Europe, Asia, and Africa. Some of the early innovations in banking were developed to facilitate the flourishing trade of Venice.

The achievements of the Hanseatic League cities in medieval times also are landmarks in the history of international commerce. Lübeck was long the dominant Hanseatic city. The league, a loose federation of about 100 trading cities, conducted military operations against those who interfered with its commerce.

Important progress in trade has been made during the last two centuries. Important developments in the technology of manufacturing, transportation, and communications made possible a rapid expansion of world commerce in the eighteenth and nineteenth centuries. The Industrial Revolution, which marked the change from hand to machine methods of production, increased the volume of goods. The development of the steam engine increased the speed of transportation many times over. Communications were perfected with the development of the telegraph and the oceanic cable. In the twentieth century, the development of new types of motive power and the airplane further stimulated commerce. Great improvements also took place in communication, especially with the perfection of radio.

Recent world trade. The trade of the world in the years just before the Second World War gravitated around the five major industrial nations—the United States, Great Britain, Germany, France, and Japan.

Because of their relatively high national incomes, these five nations were good customers of the smaller trading countries, and of those parts of the world which specialize in supplying raw materials.

As a result of the war notable changes have taken place in the relative importance of the great trading nations. Germany and Japan were defeated, and their productive capacity badly shattered by bombing or other military action. As was indicated in Chap. 13, the United States emerged from the Second World War with its economic position vastly enhanced. Great Britain has made remarkable progress in increasing her trade over prewar, but French trade has been slow in recovering from the effects of war and occupation. Canada has gained in relative importance as a commercial nation.

The flow of trade between nations is large now, but it is far from sufficient to maximize the level of real incomes throughout the world. However, world commerce was active in the years immediately after the Second World War. In 1948, the dollar value of international trade was estimated by our Commerce Department at $51 billion, a record level. This was a 6 per cent gain in dollar value over 1947, although a 3 to 4 per cent decline in the physical quantity of goods exchanged. The increase in prices from 1947 to 1948 more than compensated for a decline in the physical volume of trade. After the First World War there also was a spurt in world commerce. In both periods, extensive American export surpluses, financed largely by gifts and loans, helped swell the volume of commerce. We noted in the last chapter the importance of the various American aid programs after the Second World War.

The $51 billion estimate for 1948 world trade was obtained by adding the estimated exports of all nations. Of this sum, American exports were $12.6 billion, a decline of 18 per cent in value and 23 per cent in volume from 1947. However, even the 1948 figure was almost four times the dollar value of exports in the late 1930's.

Foreign commerce is of paramount importance to every major nation. The relative importance varies considerably, however. In the case of Great Britain or Belgium, trade is essential if the population is to be kept alive. A substantial volume of trade is necessary for a tolerable standard of living. The United States, in contrast, is not so dependent on trade for maintenance of a decent standard of living. However, as our economy is now organized it is doubtful whether we can have full employment for a prolonged period without a large volume of exports,

unless the government provides jobs by means of a major spending program.

The commerce of the world fluctuates considerably in both value and real terms over the course of the business cycle. The physical volume of trade, for example, declined by one-fourth between 1929 and 1933, the trough of the great depression. It rose by more than one-half from 1921, a depression year, to the peak boom year of 1929. A decline during depressions naturally would occur, as the level of production and consumption recedes in the leading trading nations. The decline usually is intensified, however, by the clamor for protection which develops during a depression. Both labor and industry often seek higher tariffs during recessions in order to prevent competition from foreign-made goods.

The changing position of the United States in regard to foreign commerce is of importance to the entire world. As we accept a larger volume of imports, the world can buy more from us. At present our foreign trade, in relation to our national income, is smaller than that of many other countries. Whereas the commerce of some nations, including both imports and exports, equals at least half of national income, our trade is only about an eighth of United States' national income.[1] In some prewar years, the foreign trade of Norway and the Netherlands, including both exports and imports, was 80 per cent of national income, and the trade of Belgium, Austria, and Finland has approached 75 per cent. The trade of Great Britain, France, Australia, and Canada has topped 40 per cent of national income. The rich domestic American market is a far greater lure to most of our manufacturers than their foreign markets. For example, 1948 retail sales in the United States amounted to $130 billion, more than ten times our export sales of $12.6 billion.

These figures do not tell the full story, however. We must not underestimate the importance of our foreign trade. Some of our industries, such as machine tools and some types of agriculture, are highly dependent on exports. Some sections of the United States, such as the cotton-producing states, are more affected by fluctuations in foreign trade than other parts of the nation. During the period immediately after the Second World War, the number of American jobs directly dependent

[1] To express imports and exports combined as a proportion of national income is a convenient way of indicating the total size of these items. It should not be taken to imply that imports and exports account for, or cause, that proportion of our national income.

on export sales varied between 3,000,000 and 5,000,000. A few decades ago our economy could absorb minor fluctuations in exports of manufactured goods without too severe effects at home. However, we shall be increasingly dependent on trade in the future to maintain domestic prosperity.

As we have indicated, the status of world commerce will depend to an important degree on the trade policies of the United States. The world must sell in the rich American market if maximum prosperity is to be maintained. For example, the economy of Denmark would receive an important stimulant if it could sell in the United States each year an amount of butter equivalent to only ½ per cent of total American consumption. This is not an isolated example. A return to a policy of high tariffs by the United States would be a major economic disaster for the world.

But what about our own position? If we are to export in the future the volume of goods and services necessary to maintain a high level of employment, we must increase the volume of our imports. An alternative, of course, would be to give goods away. During recent years, our volume of imports has lagged far behind exports, although the relationship improved following the critical period just after the Second World War. The level at which American exports eventually settle, however, will be determined largely by the amount of goods and services the United States buys from other countries. This brings us back to the elementary principle, so true yet so often rejected, that we must import if we would export.

Determinants of a nation's international trade. What determines the specific commodities which a nation imports or exports? A wide variety of factors are involved. In general, however, a nation imports those goods which it cannot produce, or which it can produce only at high cost. It exports those items which it can produce most efficiently. These would be the considerations if purely economic factors governed the trade policies of a nation. However, political and military considerations sometimes influence what shall be imported or exported.

A general rule for deciding the components of a country's trade is given by the law of comparative advantage, which states: A country benefits most from its foreign commerce when it exports those commodities which it can produce with the greatest comparative advantage or the least comparative disadvantage. This means that a nation will import

those items it produces with the least comparative advantage or at the greatest comparative disadvantage.[2]

Geographic factors often determine the relative advantage a nation has over other countries. For example, Alaska might produce bananas in hothouses, but it certainly would be at a disadvantage as compared with Central American countries in producing this commodity. The northerly climate of Alaska is responsible for its disadvantage in growing bananas. However, that territory has an advantage in salmon fishing. It should trade salmon for bananas. The presence of deposits of certain minerals in some areas, and their absence in others, is responsible also for the relative advantage or disadvantage of particular nations in trade.

A nation can gain an advantage over other countries through superior technology. This has long been true in regard to the United States in the manufacture of machinery and vehicles, and many other products. The Swiss are renowned as superior technicians in the watchmaking field. The English take the lead in the making of fine ceramic products.

The economies of some countries have been highly dependent on large exports of commodities in which they specialize. Danish butter, Luxemburg steel, Brazilian coffee, Canadian wheat, Australian wool, and Venezuelan oil are examples. Before the Second World War, the Japanese exported large quantities of silk. The levels of employment and income in these nations were largely determined by the price of their products in world markets.

Some of the highly specialized producers have been confronted with grave problems when the boom phase of the business cycle has turned downward. At such a time the temptation becomes very great to save home markets for domestic manufacturers. The trade of the world suffers as more nations adopt such a policy.

Protective Tariffs versus Tariffs for Revenue

Tariffs and other trade restrictions. A tariff is defined as a special kind of tax levied when goods cross international borders. We can speak either of revenue tariffs or protective tariffs. The rates of revenue tariffs are set so low they will not impede the importation of goods to an

[2] For a fuller explanation of the law of comparative advantage, see Umbreit, Myron H., Elgin F. Hunt, and Charles V. Kinter, "Fundamentals of Economics," McGraw-Hill Book Company, Inc., New York, 1948, pp. 283–287.

important degree. Otherwise, such tariffs would not produce substantial revenues. The rates of protective tariffs, on the other hand, are designed to prevent, or at least reduce, the importation of goods which would compete with domestic producers. They are set so high that foreign producers cannot pay them and still meet domestic prices.

Protective tariffs can be looked at from another point of view. They are subsidies paid by consumers to domestic producers. The amount of the subsidy is the difference between the price paid to a domestic seller and the price of the imported article in the absence of a protective tariff. As a substitute for protective tariffs, a strong case can be made for outright payment of subsidies by the government to those industries which cannot meet foreign competition. All the cards would then be on the table, whereas now the average citizen does not recognize the real nature of the "protection" being given home producers. Moreover, the consumer would be able to buy at the low price set by the foreign seller.

Tariffs, including our own, must be kept low if world trade is to prosper. It is not possible, of course, to remove tariffs suddenly when they have been in force for many years. Employment and property rights have been established under the protection of long-prevailing tariffs. However, they should be lowered after fair warning, and after a period of time adequate for the required adjustments.

Tariff systems. Considerable differences exist between the tariff systems of the various trading nations. Some tariff systems are quite simple in that they call for a flat ad valorem rate on all imports regardless of type or country of origin. An ad valorem rate is one which is a percentage of the value of the commodity imported. In contrast, the tariff systems of some nations are exceedingly complex. Different rates are applied to specific commodities, and preferences from a rate standpoint are given to goods originating in certain countries. Some complex systems call for specific duties as well as those levied on an ad valorem basis. A specific duty is levied on some definite physical unit of measurement; for example, the importer may pay so much per pound. Let us examine in more detail some different tariff systems:

1. Single or Unilinear Tariffs. A system of single or unilinear tariffs calls for one rate of tariff on each article regardless of where it originates. Except for minor differences such as preferences granted to Cuba, the United States traditionally has adhered to a unilinear tariff system.

2. Maximum and Minimum Tariffs. The laws of some nations set

up a maximum and minimum level of tariffs, and allow tariff authorities to determine the specific rates which apply. Such a system permits bargaining for tariff concessions. It also sets the stage for the granting of preferential duties to closely allied nations.

A large number of nations have adopted maximum and minimum schedules. In fact, a drift away from unilinear tariffs to various types of multilinear schedules was characteristic of the period between the two world wars. Some of the British Commonwealth nations, France, Spain, and various Central European countries are among those who adopted maximum and minimum tariffs. Canada, for example, granted its lowest tariffs to other British Commonwealth nations. A standard rate schedule was levied on imports from nations with which Canada had made trade agreements. The maximum schedule, used for bargaining purposes, applied to imports from all other nations.

3. General and Conventional Tariffs. Some countries have a general system of tariffs applicable to all countries except those with whom tariff treaties have been formulated. Thus the general level of tariffs can be modified by treaty or convention. This often results in a wide variety of rates on the same commodity, depending upon where it originates. Tariff authorities have power under this system to establish rates through negotiation, without the limitation of maximum or minimum rates.

Other trade prohibitions. Some nations carry protective tariffs to such an extreme that importation of specific goods becomes impossible. Outright prohibition of imports often is decreed where a state monopoly exists in the sale of a certain commodity. France has at times forbidden the importation of matches, tobacco, and playing cards. Canada has tried to protect its dairy industry by prohibiting the importation of oleomargarine or other butter substitutes. The United States at various times exercised strict control over imports of animals, plants, and certain food products because of the fear that plant and animal diseases would be brought into this country.

Export duties. Our discussion so far has concerned tariffs levied when goods were imported. However, some nations long have used export duties as a means of raising revenue. A tax on exports most frequently is found in nations which specialize in the production of some important mineral or agricultural product, although China has used a general export tax as a revenue measure. Chile has taxed shipments of nitrates out of the country. Brazil has taxed coffee and rubber exports. The

Malay States have levied an export duty on tin. Spain and Portugal have taxed cork exports.

In general, export duties have not been of great consequence in world trade. During the 1930's, competition for foreign trade was so keen that they were not feasible. Domestic producers objected because they increased the difficulty of meeting price competition abroad. Chile's export duties on nitrates encouraged the manufacture of synthetic nitrates in other nations. The Constitution of the United States forbids export duties.

Other methods of controlling imports and exports. The protective tariff is a powerful weapon for controlling the level of imports. It is a weapon which must be used with discretion, however, because of the danger of retaliation from other nations whose export business has been injured. However, there are other devices which accomplish the same result in keeping out foreign goods. These include foreign-exchange controls, quota systems, and currency devaluation. Such devices have been most frequently used by nations whose international payments were out of balance and which felt required to hold down imports. Quota systems and exchange controls can be used to keep down nonessential imports while permitting the importation of items held to be in the national interest. Currency devaluation most often has been used to encourage exports rather than to discourage imports, although it has the latter effect also. As we noted in Chap. 13, the International Monetary Fund, the International Trade Organization, and other world organizations are designed to help remove such barriers to world commerce.

Let us examine some of these restrictive devices. Exchange control is a method of holding down imports to a volume which can be paid for with the available amount of foreign exchange. It is a rationing device. Importers are allowed only that amount of foreign funds that has been generated by the sale of goods abroad or by foreign borrowing. The device is more than a method of keeping a nation's trade in balance with the rest of the world. It is a means of maintaining balance with every other nation. It also gives the authorities other important powers over trade. By retaining its power to allocate foreign exchange, a government can determine what is imported, from where it comes, and who is allowed to import. Importation of essential raw materials or military supplies can be encouraged, while the bringing in of luxury goods can be discouraged.

Quota systems can be used with much the same objectives in mind as when control is exercised over foreign exchange. A nation using quotas can assign portions of its import requirements to different suppliers, or it can determine in which country it will concentrate its buying. Thus it has an important weapon in winning tariff concessions from other countries. Quotas can be increased or decreased in order to conform to the availability of foreign exchange.

Currency devaluation is a method of stimulating exports and discouraging imports. It makes domestic funds cheaper relatively to other currencies in foreign-exchange markets. This, of course, makes foreign currencies more expensive to domestic importers.

Let us take a purely hypothetical case to illustrate the effect of currency devaluation in stimulating exports and discouraging imports. Assume that at a particular time the following rate of exchange existed between American, English, and Dutch currencies:

$$1 \text{ pound} = \$4 = 10 \text{ guilders}$$

A British citizen, we shall suppose, wishes to purchase a radio which is available in the United States for $40 or in Holland for 100 guilders. In either case, he must give up 10 British pounds to get the radio. It is a matter of indifference to the Englishman where he buys the radio, assuming identical transport costs.

Now let us assume that the United States devalues the dollar to one-half of its former value in order to stimulate exports. We will further suppose that efforts are successful, at least temporarily, to hold down American domestic prices. The rates of exchange between the three currencies now become:

$$1 \text{ pound} = \$8 = 10 \text{ guilders}$$

The Englishman now should have little difficulty in making up his mind where to buy the radio, which can be had in the United States for $40 or in Holland for 100 guilders. He now will have to give up only 5 British pounds if he buys the radio in the United States, whereas he must still part with 10 pounds if he acquires it in the Netherlands.

The example, of course, is an extreme one, but currency devaluation to a lesser degree occurred frequently during the 1930's when world trade shrank and most nations struggled with large domestic unemployment. Devaluation by one nation often was followed by devalua-

tion by others. The net result was a further shrinkage of world commerce.

The effect on imports of currency devaluation also can be seen from the example. Suppose a fine English fabric cost 1 British pound a yard. Before the devaluation, the equivalent American price was $4 a yard. After the devaluation, Americans must give up $8 to acquire 1 English pound, so the new price of the fabric becomes $8 a yard in the United States. It is quite easy to understand that British manufacturers of the fabric for the American trade would thoroughly disapprove of currency devaluation by the United States.

Growing American dependence on foreign trade. As already indicated, foreign trade is becoming of increasing importance to the United States despite our relatively favored situation as compared with other nations. The United States has been blessed with an abundance of natural resources. Most raw materials have been available within our own national boundaries. Exceptions have been natural rubber, coffee, a few minerals, and various agricultural products not suited to the temperate zone. Because of our high degree of self-sufficiency, we have not been nearly so dependent on foreign trade as have most other nations. Since we did not have to sell abroad in order to buy foods and scarce materials, our own rich domestic market offered the best of all sales opportunities. A few of our industries, of course, have for generations sold much of their output abroad, but they are exceptions.

This situation is changing rapidly. Some of our basic industrial raw materials, including iron, lead, and zinc, are inadequate to meet our domestic requirements for many more years. Our reserves of bauxite and asbestos appear to have a short life. Our petroleum and copper resources were drawn upon heavily during the Second World War. The timber supply of the United States has been depleted badly. A growing list of essential items must be imported in ever greater amounts.

Our study of the world economy indicated that a growing volume of imports by the United States would be beneficial to other nations. More imports also are becoming essential to the United States. We are not yet a "have-not" country, but we are drifting in that direction. However, despite our growing dependence on trade, the American public will not yet accept the sacrifices that often must be made if a nation is to enjoy a flourishing international commerce. Somebody usually is hurt by foreign competition when trade increases, and he rushes to his

congressman with a plea for a higher import duty on his commodity, although he may believe in free trade for everyone else.

We saw this happen after the Second World War when the sellers' market both at home and abroad changed into a buyers' market. Among the producers who asked for protection were watch manufacturers, New England fishermen, grape growers, shoe manufacturers, and textile manufacturers. The list is by no means complete. It is merely designed to show how diverse are the groups who clamor for protection. The manufacturers were by no means the only ones who turned to the tariff makers. Organized labor, fearing loss of jobs because of the importation of foreign goods, urged protection. Perhaps in time our domestic economy can be better geared to a high level of foreign trade. We will then make the goods and services which we can produce most efficiently, and import our other requirements.

International trade policies of the United States before 1934. The international trade policies of the United States had assumed rather definite characteristics in the years before 1934. These characteristics are worth analyzing because of the major changes which have since taken place. They are as follows:

1. UNCOMPROMISING PROTECTION. This was the cornerstone of our tariff policy. The rates established by the Hawley-Smoot tariff law of 1930 climaxed a 70-year upward trend.

2. EQUALITY OF TREATMENT. Our import duties played no favorites except for the quotas assigned to Cuba and elsewhere in inconsequential amounts. Our tariffs have otherwise applied to all nations without discrimination.

3. TARIFF AUTONOMY. This was another cornerstone of our tariff policy. Congress gave little heed to the effect on other nations or on world trade when our tariff rates were set.

4. ENCOURAGEMENT OF EXPORTS. Our government gave considerable aid to businessmen in finding markets abroad by supplying informational services of various kinds.

5. FREE ENTERPRISE IN TRADE. Our foreign commerce was carried on almost entirely by private businessmen. This has meant that sometimes individual American businessmen had to deal with government agencies which held monopolies of foreign trade in other countries.

In summary, our pre-1934 foreign trade policy was highly individualistic. Our tariffs were established to provide the degree of pro-

tection held to be necessary for American industry without considering the effects of such duties on other nations. Since the foreign trade of the United States was small in relation to the American domestic economy, there was not the fear of retaliation that often kept the tariff schedules of other nations in line.

The deepening of the great depression after 1930 brought a reorientation of American thinking on many economic matters. International commerce was among them, although we did not act wisely in regard to trade until several years had elapsed. Our first action with the coming of the depression was the Hawley-Smoot tariff of 1930. It is generally agreed that this law contributed to the intensity of the world-wide depression because of its throttling effect on international commerce. The stagnation of United States industries which depended heavily on exports helped to awaken Americans to the importance of commerce. It was seen that we had to export if we hoped to have full employment at home. Many Americans were astute enough to understand that the default of large obligations owed to us by foreigners was due in large part to our reluctance to import. It is not surprising that the United States, the world's greatest economic power, assumed the leadership in reviving world trade.

Reciprocal trade agreements. The Reciprocal Trade Agreements Act of 1934 marked a major turning point in American international trade policy. This Act, fostered by Secretary of State Cordell Hull, permitted our State Department to negotiate trade treaties with other nations. Under these treaties each country reduced its tariffs on a specified list of commodities. A noteworthy feature of the treaties was that they contained an unconditional most-favored-nation clause. This meant that tariff reductions arranged by the United States and the other party to each treaty were extended to all other nations which did not discriminate against American commerce. More than thirty reciprocal trade treaties were signed.

The Act empowered the President of the United States to negotiate reductions in American tariffs up to 50 per cent of prevailing rates. Tariff cuts attributable to the trade agreements averaged about 30 per cent from the record levels prevailing under the Hawley-Smoot Act of 1930. Perhaps still more important, the Reciprocal Trade Agreement program was of great consequence in breaking our long-practiced policy of rigid protection. The Act has come up periodically for renewal.

Free Trade versus Mercantilism

Possible trade policies. The attitude of nations toward world trade has varied considerably in different periods of economic history. For example, mercantilism, or close government regulation of commerce in order to secure an export balance, was the prevailing doctrine in the seventeenth and eighteenth centuries. During most of the nineteenth century and into the twentieth century, free trade, or trade carried on with a minimum of governmental restriction, was practiced. In the period between the world wars, there was a strong drift back toward a modern version of mercantilism. Our Reciprocal Trade Treaty program, the International Trade Organization, the World Bank, and the International Monetary Fund, have helped to arrest this backward step. Let us examine the two extremes in international trade policies.

Free trade. A policy of free trade would call for a minimum of government interference with trade. Private businessmen would buy and sell abroad without close governmental regulation or restriction. Tariffs, if levied at all, would be solely to secure revenue.

Free trade was the basic policy of the British during the nineteenth century when Great Britain was the world's leading trading nation. The British fleet kept open the lifelines of trade, and furnished protection to British merchants throughout the world. Britain was the leading exporter of manufactured products, and the leading market for imported raw materials and foodstuffs. London was the financial capital of the world. The prosperity of Great Britain during the nineteenth century is hailed as testimony to the wisdom of her trade policies.

In a world free from war or fear of war, free trade appears most likely to maximize the benefits of an international division of labor. It should, accordingly, maximize living standards. Few nations have felt justified after the first decade of this century in remaining entirely dependent on foreign sources of supply for essential goods if it could be avoided. Flourishing domestic industries which can be converted to production of war goods have been held essential to national security.

The stimulation of the international division of labor is only one of the many strong arguments which can be cited for free trade. However, this argument deserves some elaboration. Free trade enables each nation to concentrate on the production of the commodities for whose pro-

duction it is best adapted through geographical location, natural resources, or national aptitudes developed through long training. Such concentration, it is presumed, will result in lower production costs because of increased efficiency.

Many other arguments for free trade really are arguments against the harmful effects of tariffs. It is pointed out that tariffs benefit specific industries and not the general public. In fact, high import duties usually enable domestic producers to obtain higher prices than otherwise would be possible. In so far as this occurs, the protected industries benefit at the expense of consumers. The uncertainties created by high tariffs cannot be overlooked. Uneconomic industries, built up behind a tariff wall, may be destroyed through sudden reduction of rates. More likely, however, is the possibility that industries dependent on tariffs will use every political pressure possible to retain protection long after it can no longer be justified for purely economic reasons.

The danger of retaliation from other nations when tariffs are imposed is in itself an argument for free trade. Other nations will not stand idly by when one important trading country erects barriers. They also will resort to protection. When nations check the flow of imports, they automatically retard exports. A lower volume of world trade is inevitable, and all nations suffer economic loss.

Mercantilism. Mercantilism is a very old doctrine. Its modern version is called economic nationalism. The fundamental objective of mercantilism is to sell as much abroad as possible while holding imports to a minimum. The older mercantilists sought to build up a store of precious metals by selling abroad more than they bought because, according to advocates of mercantilism, money, not goods, is wealth. The twentieth-century economic nationalists are not adverse to building up a store of precious metals, but they sometimes have imposed rigid controls on trade in order to achieve other objectives. Among these are preservation of home markets, maintenance of high domestic prices and employment, the dumping abroad of domestic surpluses which cannot be sold at high, government supported prices, the building up of self-sufficiency from a military standpoint, and the accumulation of strategic war materials.

We can see that mercantilism would be characterized by (1) high tariffs or other means of holding down imports, and (2) efforts to sell

more abroad than is imported. Let us examine these objectives in more detail.

1. Holding Down Imports. Protective tariffs, of course, are one of the most effective methods of holding down imports. Germany developed a synthetic-rubber industry before the Second World War behind the protection of a high tariff on natural rubber. We have noted that there are other effective methods for restricting imports. Among them are the setting of import quotas for particular products, or for the goods of specific nations, the rationing of foreign exchange, and the making of barter agreements with other nations. Under such agreements a nation barters specific goods for certain items produced in another country.

2. Expanding Exports. A wide assortment of devices have been used by nations to expand exports. Among them are export subsidies of various kinds. This usually means that a domestic surplus is sold abroad for whatever price it will bring, with the government paying the exporter the difference between the price he gets and the domestic price.

Dumping, or the sale of a good in foreign markets at a price below cost of production or below the domestic price, has long been practiced in foreign trade. It is sometimes practiced by business enterprises as a method of getting rid of troublesome domestic surpluses. It has been considered as a type of unfair competition, however, and has often been halted by importing nations by specific tariffs against goods that were being dumped. The United States is among the nations that have provided for antidumping duties in its tariff legislation.

Currency devaluation is another method for encouraging exports, but it is one which we have already explained.

During the 1930's, the practice of export subsidies or bounties was used by a number of exporting countries. Support programs kept domestic prices above those in the world market. Domestic consumers would not buy all that was produced under the stimulant of a high support price. In order to unload surpluses abroad and thereby maintain prices and employment at home, various types of export subsidies were granted. They took many forms, but in general they made up part or all of the difference between the domestic price and the world price. In practice, a specific payment was usually made to home producers for every unit exported.

Protection is an essential characteristic of both mercantilism and modern economic nationalism. It calls for the use of tariffs and other

devices to reduce or eliminate foreign competition for domestic industry. Let us examine some of the arguments most often cited for protection. Some are very old, but they still are advanced by those who want to reduce competition for domestic producers.

1. Military Preparedness. The importance of self-sufficiency in a war-threatened world has already been noted. Long supply lines are difficult to protect during a war. Germany was blockaded during both the First and Second World Wars. Great Britain had difficulty in keeping the sea lanes open, and even the United States experienced important losses from enemy submarine action.

Because modern wars have so often been a contest of production, most major powers feel required to maintain a well-diversified domestic industry, even at high cost. This often means that home industries are protected by high tariffs against destructive competition from more favorably situated foreign producers. This same thinking prevails in regard to essential minerals and foodstuffs. The development of domestic sources of supply is held to be sound policy even at high cost.

This line of reasons has undoubted force in a world where war is a constant threat. It has become clear that a flourishing international trade, so essential to improvement of standards, can only be developed to full fruition in a peaceful world.

2. Infant-industry Argument. According to the infant-industry argument, tariff protection is appropriate while new industries are small and therefore subject to high costs. It is assumed that when they become established their costs will drop, so that they can compete with foreign producers without tariff protection. Their argument is theoretically valid. It would be much more forceful, however, if records indicated that infant industries ever were willing to admit they have grown up and have become strong enough to face foreign competition.

The experiences of the United States after the Napoleonic Wars illustrate the possible advantages of a policy of protecting infant industries. Manufactured goods were difficult to obtain from normal European suppliers because of blockades and counterblockades. Moreover, England, France, and other European nations were concentrating on the production of military goods. Hence, small industries sprang up in the United States. Due to small volume, lack of "know-how," absence of auxiliary industries, and relatively expensive labor, these frequently

operated at high cost. After Waterloo, our infant industries were threatened with extinction by a flood of foreign-made goods. Often these goods could undersell American products because they could be manufactured cheaper. However, it was evident that European manufacturers were alarmed at the possible loss of the growing American market, and were willing even to sell at a loss when necessary to destroy their new competitors. It is not difficult to see that our national policy at that time would have called for protection.

During both the First and Second World Wars, new industries developed in parts of the world which previously had concentrated on the production of raw materials or foodstuffs. This was true in such widely scattered areas as South America, India, Australia, and South Africa. Moreover, some nations heretofore regarded as backward have embarked upon a deliberate policy of industrialization as a method of raising living standards. The pressure for protection became strong in both postwar periods when European, American, and even Japanese producers could again service foreign customers.

3. Protection of American Living Standards. The argument often is advanced that tariffs are necessary to protect American living standards. It is contended that a flood of imported goods, produced by poorly paid foreign workers, would make impossible the maintenance of American wage scales. Forced to work at wage rates competitive with those in Europe and Asia, living standards of American workers would be impaired.

The argument overlooks the fundamental reason why high wages can be paid in the United States. Output per worker in the United States generally exceeds that of workers anywhere else, because of our greater use of capital equipment and our better methods.

4. Equalizing Costs of Production. The notion has crept into the tariff laws of some nations, including our own, that tariff rates should be set at levels which would equalize domestic costs of production with those abroad. This argument has popular notes of appeal because it is suggestive of fair play. A moment's thought, however, reveals the fallacy. The sole incentive for buying goods abroad would be their availability at lower cost than at home. All gains from international trade would be wiped out if every nation levied its tariffs on such a basis.

Customs Unions

We have noted some of the steps which have been taken to encourage trade in recent years. These have included the reciprocal trade treaty program of the United States. It was seen that this program marked an important step in progress because trade treaties negotiated by the United States contained a most-favored-nation clause which extended to other nations whatever tariff cuts had been agreed upon. In Chap. 13, we noted the important work of the International Trade Organization and other international bodies which foster commerce directly or indirectly. There is another method of stimulating trade, particularly appropriate for contiguous nations with closely knit economies. It is the formation of customs unions. This is a direct attack on tariffs and other restrictions which stifle regional trade.

The importance of regional trade can hardly be overestimated in some areas of the world. This is true in Europe, where political and economic boundaries do not necessarily coincide. A forceful lesson in the necessity of regional trade was given after the Second World War when recovery in Europe was slowed by the sluggishness of intra-European commerce. This was due in part, of course, to the existence of the Iron Curtain, but trade lagged even in the west. Tariff barriers and other restrictions were maintained in order to spur reconstruction of domestic industries. Because of varying degrees of inflation in different countries, the maintenance of barriers was defended until monetary reform could be accomplished. Plagued by shortages of foreign exchange, some nations restricted imports pending the development of exportable surpluses. As a result of European trade barriers, some nations faced unemployment because they could not find customers for their exports. At the same time, neighboring nations suffered from low living standards because of a dearth of goods and services.

A customs union can take many forms. In general, it is an agreement between two or more nations to remove trade barriers between them and to adopt a common policy toward international trade. If countries A and B decide to form a customs union, tariffs and other trade restrictions between them will be eliminated. Goods can be transported across their mutual borders without collection of duties. Only at their borders

with other nations will tariff barriers and other restrictions be maintained.

A customs union can become effective at once when an agreement has been reached, or it can be developed by stages. For example, the union could at first apply only to specific goods, and gradually be expanded to cover all commodities.

The idea of a customs union for all of Europe has been widely discussed. We have seen that the economic power of the United States can be attributed in part to the enormous mass market resulting from the absence of tariff barriers over a wide geographical area. It is agreed generally that Europe also could benefit in much the same manner from closer integration of its agricultural and industrial areas.

Progress toward a general European customs union has taken the form of greater economic collaboration between certain nations. The Benelux Customs Union, linking the Netherlands, Luxemburg, and Belgium, was the first to become an accomplished fact. France and Italy also took important steps toward joining their economies. Norway, Sweden, Denmark, and Iceland are working toward a Scandinavian Customs Union. Encouragement has been given by the United States to the formation of customs unions in Europe. It is felt that the development of intra-European trade is necessary if the continent is to become self-supporting.

International Commerce of the United States

The composition of American foreign trade. A few facts and figures will indicate the nature of American foreign trade and its importance relative to the remainder of our economy. Finished manufactured goods have recently constituted the largest proportion of our exports. They constituted in excess of 60 per cent of our total merchandise sales abroad at one stage of the postwar period. The percentage, as well as the amount, was swelled by the destruction of manufacturing capacity outside of the United States, during the Second World War. However, for several decades there has been an increasing trend of American exports toward finished or semimanufactured goods. In the earlier stages of our national history, most of our exports were raw materials and foodstuffs. Such items still bulk large in our export sales, but they have become of lesser relative importance.

Our imports in the early postwar period were retarded by the low level of production throughout the world. They rose as production was revived, and reached $7.1 billion in 1948, a record high to that time. Our most important type of imports recently has been crude materials. This group has constituted nearly one-third of the total in the postwar period. Semimanufactured items, finished manufactures, crude foodstuffs, and manufactured foodstuffs follow in roughly that order, although the relationship between these latter groups may vary somewhat from one period to another. As might be expected, our imports of crude materials fluctuate sharply with the progress of the business cycle. During booms we are excellent customers for foreign producers of raw materials. Our purchases are drastically reduced during depressions. Other classes of imports reflect our changing domestic economic situation, but not to such an important degree. Our average imports of crude materials may be expected to rise in the future.

The relative importance of foreign trade to our economy changes during the course of the business cycle. Exports were a little less than 7 per cent of our gross national product in 1929. They were only a little more than 4 per cent in 1932 and 1933. In 1947 they were around 8 per cent, but they had fallen to somewhat above 6 per cent in 1948. Our imports declined from somewhat below 6 per cent of gross national product in 1929 to only 3¾ per cent in 1932 and 1933. They were about 4 per cent in 1947 and 1948.

Conclusions

The difficulties natural to the movement of goods across political boundaries present no insurmountable problem to nations really desirous of expanding world commerce. Such bodies as the International Trade Organization, the World Bank, and the International Monetary Fund can do much to smooth the flow of trade. As a nation's commerce grows, a corps of specialists becomes available. More and more business organizations employ persons facile in languages and in the habits and customs of foreign countries. In short, the technical problems of commerce can be worked out easily when the advantages of commerce become apparent.

Such factors as geographical location, natural resources, and national aptitudes determine the composition of the foreign trade of a nation. A

country should export what it can produce most advantageously, and import those goods and services in which it has the greatest comparative disadvantage. If nations would give free play to this principle, a powerful stimulant would be given to rising standards of living for the whole world.

A powerful educational program showing the advantages of a flourishing trade would be helpful in promoting an understanding of the fundamental relationship between imports and exports. Foreign trade has been less important to the United States relative to its domestic economy than to any other major economic power. However, as the natural resources of the United States become depleted, this country naturally will want to import more. Already the growing necessity of exports for maintaining domestic employment has resulted in a wider appreciation by Americans of foreign commerce. The development of the reciprocal trade treaty program provides an example of the change in American thinking. The leadership provided by the United States in developing the program of the International Trade Organization is another example. The United States has progressed far from its old policy of economic isolation in trade matters. Continued progress in this direction will be the best contribution Americans can make to a flourishing world commerce.

Assuming that an international division of labor is desirable, a low tariff policy by all nations would best promote the economic well-being of the world. In a world closely linked by fast transportation and instantaneous communication, every nation most benefits when the prosperity of the world is the greatest. Raw material producers would then find ready markets at satisfactory prices. Industrial nations would find buyers for their manufactured goods. As all nations accept the principle that trade will promote world prosperity, the conflicting interests of various nations will be minimized.

Several factors account for the changing character of international trade. One is the growing industrialization in areas which formerly concentrated on the production of raw materials. This can be attributed to fear of war, fear of depression, and efforts to raise living standards. As more and more nations have industrialized, manufactured goods have played a lesser role in world commerce. The development of synthetics has been responsible for the declining importance of particular commodities such as silk, natural rubber, and nitrates.

The hold of mercantilism on the world's economic thinking in this century can be explained by the tremendous uncertainty of recent decades. Two world wars and a major depression in a generation have built up a desire for self-sufficiency among nations. The economists and political leaders of many nations may have been willing to admit that free trade would best promote higher living standards throughout the world, but nevertheless they have built tariff walls around their own borders. Why? They know that a well-diversified domestic industry and domestic sources of supply for essential materials are mandatory for national security in case of war. They feel that higher prices, resulting from stiff tariffs, are unimportant compared with the advantages of a domestic economy that will not stall in case of an enemy blockade.

We have also noted the dangers of extreme specialization in a world which has not solved the problem of business depression. A nation which specializes in the production of a particular commodity for the export trade may find its living standard greatly impaired if its foreign markets shrink.

It is evident that the case for protection and the development of a diversified domestic industry disappears to the degree that world political and economic stability can be achieved. In a peaceful, stable world, the advantages of free trade will be greatest.

When a nation has long adhered to protection, it hardly dares reduce its tariffs immediately and drastically. The best it can do is to announce a program of reduction to be accomplished over a period of time. A sudden cut of tariffs would destroy high-cost industries which have been built up behind a wall of protection. Enormous losses of capital and of employment opportunities would be inevitable. However, a shift of productive factors could be made to more efficient industries over a period of time, if sufficient warning of tariff reductions was given.

We have demonstrated the importance of international trade both to the United States and the remainder of the world. The shift of the United States away from economic isolationism and toward internationalism has been a progressive step for the world. This shift, which became evident with the reciprocal trade treaty program in 1934, has continued into the postwar period. A return to extreme economic nationalism by the United States would be a disaster for the world. However, it is becoming clear that the United States will never go back to the

pre-1934 type of thinking in regard to international trade. We are increasingly recognizing the importance of foreign trade in maintaining a high level of domestic employment. We also realize that we must purchase many essential materials abroad. Further, we are beginning to recognize that not only our economic prosperity but also our political security depend to a large extent on the maintenance of tolerable economic conditions in other countries.

Review Questions

1. What advantages can accrue to a nation from its international trade?
2. Describe briefly the foreign trade of the United States.
3. Discuss the relative importance of foreign trade to the American economy.
4. What are the principal differences which distinguish foreign from domestic trade?
5. What determines the products which a nation should export?
6. Why is foreign trade of increasing importance to the United States?
7. Describe the pre-1934 attitude of the United States toward international trade. Is the American attitude still the same?
8. Discuss the reciprocal trade treaty program.
9. What alternative foreign trade policies might a nation adopt?
10. What methods can be adopted to encourage foreign trade?
11. Distinguish between protective tariffs and those designed to produce revenue for the government.
12. State all the reasons you can why a nation might want to attain self-sufficiency from an economic standpoint.

Problems

1. Make a list of the American industries that would suffer most from a contraction of our exports.

2. List all the synthetic products that are important industrial raw materials. Which of these replaced natural commodities? Where were the natural items produced?

3. The assertion sometimes is made that we lost a golden opportunity, immediately after the Second World War, to get rid of our tariffs. It is contended that few businessmen or labor leaders would have complained if tariffs had been abolished then. Employment was high and eager buyers were ready to take anything that could be produced. Would this have been the correct time to eliminate our tariffs? If so, should we have acted by ourselves or should we have urged other nations to do likewise? What would have been the reaction of other nations to such proposals, if made in the early postwar period? Would it be harder or easier now to get all nations to follow us if we were to remove all tariffs?

4. List all the arguments you can for free trade, and all you can for protection. Which case appears to be the stronger? Can you visualize any situation where protection might be more advantageous for a particular nation?

Suggested Readings

Adams, Walter, and Leland E. Traywick: "Readings in Economics," The Macmillan Company, New York, 1948, Chaps. 27, 28.

Bye, Raymond T., and William W. Hewett: "Applied Economics," F. S. Crofts & Co., New York, 1947, Chap. 16.

Patterson, S. Howard, and Karl W. H. Scholz: "Economic Problems of Modern Life," McGraw-Hill Book Company, Inc., New York, 1948, Chap. 12.

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PART FIVE

Problems of Income and Economic Security

We seek economic stability, flexibility, and progress in order to achieve higher standards of living and greater security for the largest number of people. Standards of living for the masses depend not only on the total national output of goods, but also on the way in which this output is divided up. Since the average man receives most of his income from his labor, his standard of living depends directly upon his success in selling his labor at a satisfactory price. If, because of misfortune or old age, the average man cannot sell his labor, his income shrinks or even disappears unless the government comes to his aid.

Part Five deals with certain problems which affect the income and economic security of individuals. These problems relate to economic inequality, the labor market, and economic (social) security.

15. Economic Inequality

The two preceding chapters have dealt with ways in which foreign trade and investment might be expanded so as to make a greater contribution to economic stability and progress. In the present chapter we shall shift our attention to the problem of economic inequality. We shall examine this problem, and attempt to find ways of dealing with it which will also contribute to economic stability and progress.

The Nature of Economic Inequality

Economic inequality is of two types, namely, inequality of income and inequality of wealth. Though these two types are related, they show marked differences.

Inequalities in the distribution of wealth are much greater than inequalities in the distribution of income. While a few people own fabulous amounts of wealth, millions of others possess almost none. On the other hand, almost anyone who is willing and able to work can, in normal times, receive enough income to live in a fair degree of comfort. Though the total amount of income received from wealth, or property, is considerable, by far the greater part of the national income consists of payments received for personal services. Every free person controls his own services, and he can, therefore, receive as income whatever these services are worth in the market.

Inequalities of wealth and income among individuals or families will be our chief concern in this chapter. However, we shall have occasion to refer to two other aspects of the unequal distribution of wealth and income, namely, differences among the various regions of the country, and differences among occupations.

Why Economic Inequality Is a Problem

The relation of inequality to poverty. It is obvious that, assuming any given total income for the nation, if some people have incomes that are larger than the national average others must have incomes that are below the average. The greater the number of people who have large incomes, and the larger these incomes are, the greater must be the number of people who have rather small incomes. Actually the differences are very great at the extremes. At the top of the economic ladder are a few very wealthy people who receive most of their income from property. At the bottom of the ladder are those who suffer from extreme poverty. The latter exceed by many times the number of the very wealthy, but they too, except in periods of economic depression, represent a very small part of the total population.

If the national income of the United States could be divided up equally, without any reduction in the total, poverty could be completely wiped out. Had incomes been equal in 1948, every man, woman, and child in the country would have received between $1,400 and $1,500. This means that each family of three would have had an income of more than $4,200, while a family of four would have received between $5,600 and $6,000. However, most people are aware that there are very serious obstacles to a perfectly equal division of income. One of these obstacles is the fact that a perfectly equal division of income would reduce incentives and would therefore result in a reduction of the total amount of income to be divided.

Inequality and social justice. It is clear that if a substantial part of the wealth and income of a country is concentrated in the hands of a small minority, the problem of poverty is intensified. However, even if extreme poverty could be wiped out, great differences in wealth and income would still constitute a serious social problem. Those who had rather small incomes would desire more, and great numbers of such people would feel that it was unjust that they should have so little compared with their more fortunate fellow citizens.

This sense of injustice at the distribution of income is likely to be especially strong when workers on small wages compare their own lot with the lot of those who possess inherited fortunes, and who can therefore live in luxury with little or no personal effort. People on small

incomes are less likely to resent the large incomes of others if it is felt that such incomes are the result of useful work, and the possession of unusual abilities or skills.

Economic inequality often results in unjust differences in the treatment of citizens when they come before the courts. In theory, all citizens of a democracy have equal rights under the law. However, it takes money to hire good lawyers. In practice, therefore, a rich man who is accused of crime often has a much better chance of acquittal than a poor man in similar circumstances.

Economic inequality results in unequal opportunities as between the rich and poor. This inequality of opportunity seems especially unjust in the case of children. A rich man's son is likely to go to college even though he has such small abilities that he can benefit very little. On the other hand, a poor man's son may be denied the privilege even though his abilities are very great.

Economic inequality and social stratification. In so far as economic inequality effectively limits the opportunities of the poor, it tends to bring about social stratification. People in the lower income groups find that it is difficult to move into the better paid occupations. The son of the rich man is likely to get the best available training, and he enters the professions or business under the most favorable circumstances. On the other hand, the son of the common laborer or the carpenter, denied these opportunities, is likely to follow in the footsteps of his father and become a common laborer or, at most, enter some skilled trade.

Economic inequality and social waste. It is sometimes maintained that one of the great evils of economic inequality is the social "waste" that results from the production of luxuries for the wealthy. The production of such luxuries may require a great amount of labor and materials. Wealthy people purchase these luxuries at high prices, because to such people money means very little. However, their utility to the purchasers is small compared with the resources required for their production. If these resources could be used, instead, to produce goods urgently needed by people with small incomes, they would contribute much more to the sum total of human satisfactions.

According to some writers, most of the expenditures of the very wealthy represent "conspicuous consumption." This is the epithet Thorstein Veblen applied to expenditures made for the principal purpose of impressing others with the wealth and importance of the spender.

Economic inequality and the business cycle. There is not much agreement among economists as to the effect of economic inequality on the business cycle. Some consider it a negligible or very minor factor. Others, however, rate it as of major importance.

The more naïve theories that explain depressions in terms of inequality of incomes are not to be taken very seriously. One such explanation runs as follows: The working people of the country receive as wages only part of the money for which the products of industry are sold. As a result, they do not receive enough income in a given period of time to buy the entire output of their labor. The rest of the money received for the products of industry is paid out to property owners as interest, rent, and profits. If all this property income were spent, the total output of goods would still be taken off the market. However, many property owners have such large incomes that they save more than they spend. This means that the aggregate amount of money spent on goods tends always to be less than the value of the goods produced, and, therefore, production and employment tend constantly to shrink.

The above argument has one great weakness. It overlooks the fact that when people save they do not normally hoard their savings. Instead they invest them; that is to say, directly or indirectly they spend them for new machines, factories, office buildings, or other productive equipment. Income used for the purchase of new investment goods is just as truly spent as income used to buy consumption goods. As long as the total amount of income received from the sale of goods is spent for *either* consumption or investment, the aggregate money demand for goods will be sufficient to take off the market the aggregate output of the economy. As long as this condition prevails, production will not contract and unemployment will not develop. Another way of expressing this idea is to say that as long as investment is equal to saving, the economy will remain in equilibrium.

However, the late eminent English economist, John Maynard Keynes, argued that as incomes and standards of living rise there is a tendency for savings constantly to exceed investment. Statistical studies show that people in the higher income groups save a larger proportion of their incomes than people in the lower groups. This leads us to believe that a rise in the average level of incomes would cause saving to increase faster than consumption expenditures. If the increased amounts saved were invested, no problem would arise. However, Lord Keynes believed

that in a wealthy and progressive nation, investment opportunities are not likely to expand as fast as saving. As a result, a rise in saving brings a contraction of total expenditures. The aggregate demand for goods falls, and tends to remain at a lower level; and this results in a chronic condition of unemployment.

If Keynes's analysis is correct, a substantial degree of economic inequality would greatly intensify the problem of unemployment. Since people in the high income groups save a much larger proportion of their incomes than those in the low and middle income groups, the greater the inequality of incomes, the stronger will be the tendency toward "oversaving." One writer, Kenneth E. Boulding, goes so far as to say, "only a rich society can afford to be equalitarian. A rich society *must* be equalitarian or it will spill its riches in unemployment." [1]

The fact that people with large incomes save, absolutely, and proportionately to their incomes, much more than those with small incomes is indicated clearly by the 1948 *Survey of Consumer Finances* conducted by the Board of Governors of the Federal Reserve System.[2] This survey shows that the tenth of the spending units [3] having the highest incomes in 1947 received only 33 per cent of the aggregate income of all spending units, yet this group accounted for 77 per cent of net personal savings. The highest two-tenths of spending units accounted for 93 per cent of net personal savings. On the other hand, the three lowest tenths of income receivers actually *dissaved,* that is, they spent more money than they received as income.

The Social Advantages of Economic Inequality

Large incomes as a necessary source of savings and capital. In the preceding paragraph reference was made to the danger of oversaving. There is also, however, the possibility of undersaving.

To operate efficiently, a modern industrial economy requires tremendous amounts of capital. Unless vast sums are forthcoming to replace obsolete equipment and to expand productive capacity, standards of living will remain static and employment opportunities will fail to

[1] Boulding, Kenneth E., "The Economics of Peace," Prentice-Hall, Inc., New York, 1945, p. 11.

[2] *Federal Reserve Bulletin,* August, 1948, p. 923.

[3] "Spending units" include both families and single individuals.

expand to meet the needs of a growing population. This will harm the working classes even more than it will the wealthy. In the past the need for new capital was largely met from the savings of those in the higher income brackets. Since people in the lower and middle income brackets save comparatively little, had income been more evenly distributed, less capital would have been available, and industrial expansion in this country would have been much slower.

Today personal savings furnish a smaller part than formerly of the total demands of industry for capital. To a large extent this development is a result of the high surtaxes which, in recent years, have been placed on incomes in the upper brackets. If upper bracket incomes should be still further reduced, the adverse effect on personal saving might seriously jeopardize economic progress, preventing that expansion of industry which is necessary to furnish increasing opportunities for employment.

It is sometimes maintained that personal savings by people in the upper income brackets are no longer necessary to provide our economy with adequate capital. Indeed, if we agree with Keynes and his followers, the real danger which we face is oversaving. In support of the belief that personal saving by the well-to-do is no longer important, it may be noted that, in recent years, institutions like investment trusts, building and loan associations, and insurance companies have been successful in accumulating large amounts of capital by bringing together the funds of great numbers of small savers. It may also be noted that business corporations, to a larger extent than ever before, have been meeting their capital needs out of profits retained in the business.

However, in spite of the trend toward "institutional saving," it seems probable that the disappearance of individual incomes sufficiently large to permit substantial savings would have serious adverse effects on our economy. It is not at all certain that the other sources of saving would be adequate to replace the decline of individual saving. In any case, our economic system would lose something of its flexible and progressive character. Institutions, even such institutions as established business corporations, tend to be conservative. They are not free to take the risks that many individuals can and will take. If we had to depend entirely on institutional saving as a source of capital, it would become increasingly difficult to start any kind of new enterprise which involved a large element of risk.

Large fortunes as the source of endowments for socially useful institutions. Another defense of economic inequality is the contention that

large fortunes fulfill a desirable function by providing funds for the endowment of socially useful institutions like universities, museums, hospitals, and foundations devoted to scientific research.

While this defense of inequality should not be overstressed, it undoubtedly contains an important element of truth. To be sure, it would be possible for the government to provide all the institutions mentioned. On the other hand, when institutions are set up by the government they are not likely to have the same degree of freedom, nor the same degree of flexibility, as they often possess under private control.

Compare, for example, privately endowed universities with state universities. Though some of our state universities are great centers of learning, they are apt to be handicapped by the fact that they must provide mass education. On the other hand, well-endowed private schools can often limit their enrollment to the number of students they can handle well. They are, therefore, in a better position to experiment, or to reserve a substantial portion of their resources for research projects. Though the privately endowed universities are by no means entirely free from undesirable pressures, they often have more independence than state schools, and are therefore better able to concentrate effectively on the important business of providing education and advancing knowledge.

The relation of inequality to economic incentives. The strongest argument for economic inequality is that some degree of inequality is necessary if economic incentives are to serve as a stimulus to production.

An industrial economy like ours cannot operate efficiently unless there are great numbers of well-trained workers, both in the skilled trades and in the professions. It is largely the expectation of receiving higher incomes than the general run of workers that induces individuals to undergo the expense and effort necessary to enter these occupations. It is also the expectation of higher incomes that induces men to exert their best efforts on the job in order to win promotion. Again, it is the hope of more wealth and income that induces entrepreneurs to accept the risks of loss, and the other burdens incident to the organization of new business enterprises.

There are idealists who believe that human society could be organized so that individuals would exert their best productive efforts without the income or profit motive. They believe that other motives could be substituted which would be quite as effective as the profit motive. Of course it must be granted that even in our present society the productive activi-

ties of individuals are influenced by other factors than the desire for economic betterment. Nevertheless, it is pretty clear that economic betterment is the dominant motive behind most productive activity. Though other motives can and do supplement the profit motive, it seems highly unrealistic to suppose that they could adequately replace it. Without substantial economic incentives, and the degree of inequality necessary to permit them, there is reason to believe that there would be a serious shrinkage in the total output of our economy.

In passing it might be noted that the government of Soviet Russia has made no attempt to abandon economic rewards as a device for stimulating production. On the contrary, it has made systematic use of such rewards in its attempts to expand output.

Factors Which Account for Economic Inequality

Wage and salary differences. Wages, including salaries, are prices; they are the prices paid for human services, and like other prices they are subject to the forces of supply and demand. Though competition in labor markets is imperfect, and though some degree of monopoly is not uncommon, wage differences between occupations can be largely explained in terms of supply and demand. If there is a strong demand for workers in a certain trade, and if supply is restricted because entry into the trade is difficult, wages will be relatively high. Entry into a trade or profession may be difficult because of artificial barriers imposed by a labor union or the government. In the long run, however, the most effective barriers against entry into a given occupation are the education, training, and special abilities required.

All workers may be divided into a large number of *noncompeting groups,* and each of these groups has a different wage level. Unskilled workers cannot compete with skilled or professional workers; neither can any group of skilled or professional workers compete with any other such group.

Factors that determine individual earning power. Sometimes there is a strong demand for the services of a particular individual because he has a unique reputation. Such an individual, since he has a monopoly of his own services, may be able to demand a very high wage or salary. Actors, singers, athletes, and even professional men frequently find themselves in this position.

In general the wage income which an individual receives for his services depends directly on two factors: (1) the usual rate of pay in the occupation for which he qualifies, and (2) any special demand which he can create for his own services as distinguished from those of other individuals in the same occupation.

The success of an individual in qualifying for a well-paid occupation and in building up a demand for his own services depends on many factors. Among these are the effort he puts forth and his aptitudes, which largely determine the ease and success with which he can acquire skill, knowledge, and understanding. Equally important, however, is his environment; for environment, broadly speaking, includes family and community influences, educational opportunities, and on-the-job experiences.

Differences in property ownership and property incomes. Differences in personal earning power are only part of the explanation of economic inequality. The other part of the explanation is to be found in the factors which cause differences in the amount of property held by individuals.

To understand why some people own vast accumulations of wealth, while others own little or none at all, we need first some knowledge of the laws and customs which regulate and limit the acquisition, transfer, and ownership of property. In other words, we need to understand what is sometimes called the institution of private property.

To understand the institution of private property fully, we would have to delve into social and legal history quite beyond the scope of this book. For our present purposes it will suffice to say that under our social system the state provides ways by which private ownership of property may be acquired. Further, once such ownership has been acquired, the state protects the owner in his right to the exclusive use and enjoyment of his own property.

We commonly use the word "property" as a synonym for wealth. Sometimes, however, the word is used in a narrower sense, to refer to ownership rights rather than to the actual material goods which are owned. There are several ways by which an individual can acquire property. Perhaps the most common method is to purchase durable consumers' goods or capital goods with money saved out of income. Individuals who have good salaries or who receive substantial business profits may be able to acquire considerable amounts of property through saving. A second way of acquiring large amounts of property is to speculate successfully in land, securities, or commodities. However, the method of

acquiring property which contributes most to increasing and perpetuating economic inequality is inheritance. Once a man has acquired wealth, he can pass it on to his children. This puts them in a favorable position to acquire still more wealth which they, in turn, can pass on to their children.

Once a man possesses a substantial amount of property it becomes an important source of income. Loans and security investments yield interest and dividends, real estate yields rent, copyrights and patents bring in royalties, and ownership of successful business enterprises results in profits.

Property incomes have important social functions in bringing about the efficient use in production of the community's resources. For example, businessmen who can make the most productive use of land or capital can bid it away from other users, because they can afford to offer more rent or a higher rate of interest. Also, the fact that wealth is a source of income induces its owners to conserve it and to attempt to increase it.

The Extent of Inequality

The unequal distribution of wealth. Our knowledge of just how the wealth of the community is distributed is rather limited and vague. We know enough, however, to be certain that wealth is distributed more unequally than income. One difficulty in getting statistical information about the distribution of wealth is the difficulty of estimating the value of properties which people hold. A second difficulty is that these property values are constantly changing. A third difficulty is the unwillingness of many people to divulge their private financial status.

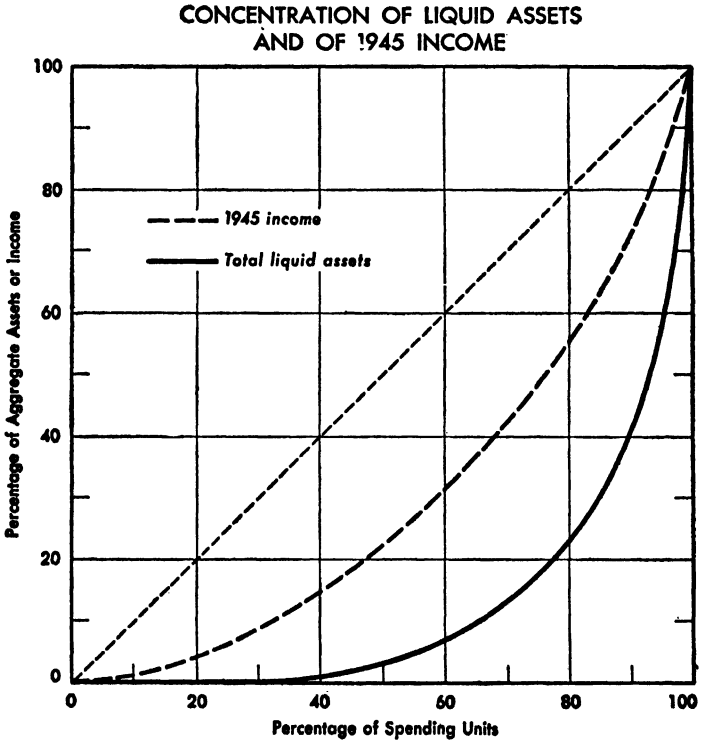
In 1927, Professor W. I. King attempted to determine the distribution of wealth in the United States by surveying the size of estates left at death in two representative states, Massachusetts and Wisconsin. He concluded that the 2 per cent of the people who held $50,000 or more of wealth owned 40 per cent of the total wealth of the country. On the other hand, the 65 per cent of the people who held less than $3,500 of wealth owned only 15 per cent of the total wealth.

While Professor King's study throws some light on the probable nature of the distribution of wealth, its value is somewhat limited. There is no certainty that the distribution of wealth among individuals at death corresponds very closely to the distribution among the living. Also, there

have doubtless been changes in the distribution of wealth since 1927. Except, however, for the tendency of higher estate taxes to cut down extremely large fortunes, there is no reason to suppose that such changes have been radical.

Though we have no very accurate information about the distribution of wealth in general, a recent study by the Bureau of Agricultural Economics throws light on the distribution of an important kind of wealth, namely, *liquid assets.*[4] As used in this study "liquid assets" refer to personal holdings of United States Government bonds, savings accounts, and checking accounts.

The graph below is taken from the study just mentioned. The solid line represents the distribution of liquid assets among spending units in 1945. The heavy broken line represents the distribution of income. The light broken line is the line of equal distribution.



U.S. Department of Agriculture, Bureau of Agricultural Economics.

[4] "National Survey of Liquid Asset Holdings, Spending, and Saving," Bureau of Agricultural Economics, Washington, D.C., June, 1946.

The curves in this graph are sometimes called Lorenz curves. They indicate graphically the degree of inequality in the distribution of wealth or income. If income, for example, were distributed equally, 20 per cent of the spending units would have 20 per cent of the income, 40 per cent of the units would have 40 per cent of the income, and so on. This is indicated by the light dotted line, which is a curve showing equal distribution of income because it is straight. The greater the curvature of a Lorenz curve, the greater is the inequality of distribution.

The heavy dotted line indicates that income is very unequally distributed. The 20 per cent of spending units with the lowest income had, in 1945, only about 4 per cent of the aggregate income, while the highest 20 per cent had 45 per cent of the income. However, the solid line indicates that liquid assets are even more unequally distributed than income. The 20 per cent of spending units with the smallest amount of liquid assets had practically no liquid assets at all. At the other extreme, the 20 per cent of spending units with the largest amount of liquid assets owned 77 per cent of the total amount of such assets.

Inequality in the distribution of income. As already indicated, our knowledge of the distribution of income is much more adequate than our knowledge of the distribution of wealth. We have fairly reliable estimates of differences of incomes between industries, between geographical regions, and between individuals and families.

Wage differences between industries are considerable. For example, in March, 1949, the average hourly wage of workers engaged in the automobile industry was $1.69, while the average hourly wage in tobacco manufacturing was $1.02.[5]

Regional differences in income are also considerable. It is common knowledge that per capita income in the United States is considerably higher than in most other countries. However, even in the United States there are important regional differences. Based on averages of the ratios for 1919 to 1921 and 1934 to 1938, Simon Kuznets found that per capita income in different states varied widely.[6] For example, in Mississippi per capita income was 40 per cent of the national average, while in New York State it was 162 per cent.

[5] *Survey of Current Business,* March, 1949.

[6] KUZNETS, SIMON, "National Income: A Summary of Findings," National Bureau of Economic Research, New York, 1946.

The southern and southeastern states have been, and still are, a low-income area. There is some evidence, however, that regional differences in the United States are diminishing. Comparing the present with 1929, per capita income in the south has increased by a substantially greater percentage than per capita income in the country as a whole.

For the purposes of the present chapter the most important aspect of inequality is the unequal distribution of income among individuals, families, or "spending units."

The following table presents data for the year 1947. It divides spending units into groups according to size of incomes. For each group it shows (1) the percentage of all spending units represented by the group, basing the classification on income before Federal income taxes; (2) the percentage of aggregate income which each group received; and (3) the percentage of all spending units which each group would contain if instead of being based on income before taxes, the classification were based on income after payment of income taxes. Personal income after payment of taxes is called disposable income.

Table 39. Distribution of Spending Units and Money Incomes in 1947, before and after Federal Income Taxes

Annual money income	*Per cent, before taxes, of spending units in each group* *	*Per cent, before taxes, of aggregate money income* †	*Per cent, after taxes, of spending units in each group* †
Under $1,000	14	2	15
$1,000–$1,999	22	10	25
2,000– 2,999	23	17	25
3,000– 3,999	17	18	17
4,000– 4,999	10	13	8
5,000– 7,499	9	16	7
7,500 and over	5	24	3
All income groups	100	100	100

* *Federal Reserve Bulletin*, June, 1948, p. 651.

† *Ibid.*, August, 1948, p. 924.

Two facts should be especially noted in the above table. First, inequality is great between the highest and lowest income groups. The 14 per cent of the spending units with incomes under $1,000 received, before taxes, only 2 per cent of aggregate income, while the 5 per cent with incomes over $7,500 received 24 per cent of aggregate income. Second, income taxes substantially reduce incomes at the upper levels. Of the spending units which had incomes of $7,500 and over before taxes, 40 per cent dropped into a lower income group after paying income taxes.

To get a fairly complete picture of the effect of taxes on the distribution of income it would be necessary to classify income receivers above the $7,500 level, and to determine the effect of taxes on each group. The following statistics, however, give a rough idea of how taxes change the picture at higher income levels. In 1947, 46 per cent of all taxpayers in the $7,500 and over group had tax liabilities of from $1,000 to $1,999. Forty-two per cent had tax liabilities of over $2,000; and of these, 14 per cent had tax liabilities of over $5,000.[7] When incomes become really large, taxes cut them down drastically. Though substantial reductions in income taxes have taken place since the war, by the time a man's income reaches $50,000 something like half of it goes to the tax collectors.[8]

It is not possible to make accurate estimates of changes in the distribution of income over the last twenty or more years. One difficulty is that different investigations have employed different methods of gathering and interpreting data. It appears, however, that no very radical changes have taken place.

Though there has been no radical change in the distribution of income, the living standards of nearly all important groups in the population have risen substantially since the 1930's. There has also been, it is true, a great rise in the cost of living. However, the average rise in income per capita has been even greater. This rise in per capita income is principally the direct result of two factors: (1) the disappearance of any important amount of unemployment, and (2) the rise in hourly wage rates.

Economic inequality is clearly not a simple problem. As has been

[7] *Federal Reserve Bulletin*, August, 1948, p. 924.

[8] The exact amount will vary with his dependents and with whether he reports individually or jointly with his wife.

pointed out, inequality has social advantages as well as disadvantages. Many careful students of the problem believe that our present income surtaxes, in combination with estate and inheritance taxes, go as far as is desirable in leveling off wealth and income at the higher levels. They believe that any further attempt to reduce large incomes would "kill the goose that lays the golden egg." Effort and enterprise would be discouraged to such an extent that the divisible product of the economy would shrink; and in the long run the working classes would lose rather than benefit.

Whether we accept this point of view or not, it merits serious consideration. However, the distance which it is wise to go in leveling off large fortunes and incomes depends partly on the methods employed.

Possible Standards for the Division of Wealth and Income

It is safe to say that there is no simple basis for the distribution of wealth and income which, in practice, would be satisfactory.

Most of the writers who have sought an ideal standard of distribution have been primarily concerned with *justice*. There is, however, no such thing as absolute justice. Justice or fairness is a human concept which means somewhat different things to different people. To some, a just distribution of wealth or income would be an equal distribution; to others, it would be a distribution in proportion to need; to still others, it would be a distribution proportionate to effort or productivity.

However, abstract justice is by no means the only factor to consider in seeking a wise basis for distribution. It is equally important to consider the effects which the distribution of wealth and income have on the organization of our economy and, especially, on incentives to productive effort. In the long run, it may be much better for everyone that wealth and income should be distributed in such a way as to provide adequate economic incentives than that it should be distributed on some basis intended to meet the demands of an abstract concept of justice.

There are two major objections to complete equality as a basis for the distribution of wealth and income. In the first place, equality would seem unjust to most people because it would remove all relation between income on the one hand and effort or productivity on the other hand. In the second place, since everyone would share alike, regardless

of his contribution to output, it would remove all economic incentives to productive effort. The same objections would apply to a system of distribution based on *need.* In addition, need is something which can seldom be measured very accurately.

Effort, or economic productivity, would be a much more satisfactory criterion on which to base distribution, both because it would make a stronger appeal to the public's sense of justice, and because it would provide economic incentives by relating wealth and income to productive effort.

However, neither the effort nor the productivity of an individual can be measured with any accuracy. "Effort" is a psychological quantity which, strictly speaking, is not subject to measurement; while the difficulty of measuring productivity is that most production is carried on jointly by a number of workers in conjunction with land and capital, and in an absolute sense there is no way of determining how much product should be attributed to labor and how much to land or capital. Without all three factors, nothing could be produced. In theory, it is possible to find the productivity of labor *at the margin.* In practice, however, even this is difficult.

A Program for Meeting the Problem of Economic Inequality

In proposing a program for dealing with economic inequality we must recognize its social advantages as well as its social disadvantages. The removal of all economic inequality would not be a satisfactory solution of the problem. We have noted that, without inequalities, there could be no economic incentives to production. We have also noted that economic inequality tends to increase the aggregate amount of personal savings, and that it contributes to the flexibility and the progressive character of our economy.

It seems clear that any practical program for meeting the problem of economic inequality must represent a common-sense compromise among several objectives. The major factors which must be taken into account are the following: (1) the need of individuals and families, at the lower income levels, for an adequate standard of living; (2) the sense of justice of the public; and (3) the need for maintaining and expanding the national output of goods and services by providing adequate capital and adequate economic incentives.

The authors believe that the most satisfactory solution of the problem of inequality is to be found in the application of the four following policies: (1) reducing somewhat further the extremes of inequality, especially by raising incomes at the lowest levels; (2) making a greater effort to equalize opportunities, especially educational opportunities; (3) doing everything possible to create a closer relationship between income on the one hand and productive effort and efficiency on the other; (4) developing a program of economic education, designed to give the public a better understanding of the economic advantages which are possible only if a substantial degree of inequality is permitted.

The reduction of gross inequalities of wealth and income. A further reduction of gross or extreme inequalities of wealth and income would have substantial advantages. The masses of the people would be more willing to accept our economic order, and to recognize it as a reasonably just system. Inequalities of opportunity and political power would be somewhat reduced, as well as the trend toward social stratification. The social waste resulting from the production of expensive luxuries would also be reduced. Whether or not cyclical fluctuations of business would be substantially decreased is not certain, but it is possible that they might be.

Probably the simplest and most effective method for leveling down large fortunes and incomes is the imposition of estate taxes and income taxes. We have already gone a long way in applying this method, and it is doubtful that we should go further. It is probable, however, that we could modify present tax laws so that they would be fairer, and so that they would have a less repressive effect on business initiative. Some aspects of this problem have been discussed in the chapter on taxation. It is also probable that the income and estate taxes which we already have will, in time, result in a further leveling down of large fortunes and incomes.

The authors strongly oppose the proposal of some writers that inheritance be completely or largely eliminated. We believe that people in all income groups value the right to bequeath property to their children. For many people, the strongest incentive to productive activity is the accumulation of property for the benefit of their heirs. Furthermore, elimination of inheritance would mean that most property would fall into the hands of the government. The result would be the replace-

ment of our free-enterprise system by a socialized economy. We oppose this because we believe that our free-enterprise system will, in the long run, provide the greatest benefits to all classes in our population.

Though there is undoubtedly something to be said in favor of reducing fortunes and incomes that are extremely large, a far more important problem is to increase incomes that are extremely low. There are several approaches to this problem, all of which should be utilized. First, our educational system should be developed to give more training to those young people whose education is now inadequate to make them efficient workers. Second, scientific and technical progress should be encouraged to increase the total output of our economy, and thus to raise standards of living for all. Third, the social-security program should be extended to give all workers a certain amount of protection against loss of income for reasons beyond their control.

The problems involved in creating a satisfactory social-security program are discussed in another chapter. At this point we shall merely note that such a program should fulfill three requirements. First, it should be reasonably broad and fair in its coverage. Second, it should offer protection against extreme hardship, but should not make idleness attractive. Third, it should not put an undue strain upon the economic resources of the community.

The equalization of economic opportunities. If the public felt that everyone had an equal chance in the economic struggle, one great source of discontent with our present social system would be removed. Of course, perfect equality of opportunity is a goal which cannot possibly be achieved. There are methods, however, by which we could approach closer to it than we now are. Any reduction of gross economic inequalities, or any increase in standards of living at the lower income levels, is a step in the direction of equalizing opportunities for the coming generation of children.

One of the most effective ways of equalizing opportunities would be to remove the financial barriers which prevent many young people of ability from continuing their schooling through college or university. The GI Bill of Rights has made it possible for millions of ex-servicemen to get a higher education. In the long run it would probably be well worth the cost to apply a modified version of this plan to civilian youth.

It probably would not be wise for the Federal government to subsi-

dize the higher education of all young people regardless of their abilities. However, those with superior abilities and a creditable record of achievement should not be prevented from getting an education merely for lack of funds. To allow this to happen is not only unjust; it is also a great waste of the human resources of the nation.

Relating wealth and income to productive efficiency. It is desirable to relate wealth and income to productive efficiency whenever possible. This has two advantages. In the first place, it helps to satisfy the public's sense of justice. People seldom resent the possession of wealth by others if they feel that it has been earned. In the second place, wealth and income must be related to productive efficiency if they are to serve as economic incentives.

One argument for breaking up large estates by heavy taxation is that this reduces the number of the "idle rich," that is, the number of people who can receive a substantial income without making any personal contribution to the output of the economy.

Many people believe that in levying income taxes a distinction should be made between income from property and income from services. They believe that income from services should be taxed at a lower rate than income from property, on the theory that service incomes are a reward for effort, while property incomes are not. While there is something to be said for this point of view, it must not be forgotten that property incomes also perform economic functions. They induce people to lend and invest, and to accept the risks which are unavoidable in carrying on productive enterprises.

Attacking the problem of inequality through economic education of the public. One of the reasons for the popularity of "share-the-wealth" programs is that most people do not clearly understand either the economic functions performed by property incomes, or the social benefits which result indirectly from some degree of economic inequality.

The masses of the people do not fully understand that if we made it impossible for individuals to accumulate wealth or to receive substantial incomes, economic incentives would be seriously reduced, with the result that there would be much less production, and much less income to divide up. They do not understand that if business profits were largely taxed away, or turned over to labor in wage increases, entrepreneurs would have no incentive to undertake new enterprises; and that there-

fore economic activity would stagnate, production would fail to rise, and employment opportunities would fail to expand. They do not realize that ultimately the chief sufferers from the destruction of business profits would be, not the owners of business, but the masses of the workers. Neither do they realize that it would be possible to tax away such a large proportion of private wealth and income as to bring about the gradual socialization of most business activities. This would follow because private savings would no longer be sufficient to maintain and expand the productive equipment of the economy. Moreover, if estate taxes rose to extremely high levels, in order to collect them the government would have to take over a large part of the real wealth of the community.

If we are to maintain the essential characteristics of a free-enterprise economy, with all its social advantages, the public must be given a better understanding of the nature of such a system. Among other things, it must see the necessity for a substantial amount of economic inequality, and the benefits to be derived from such inequality.

This means that every effort must be made to increase the effectiveness of economic education, and to broaden its scope. We must not only seek to improve the teaching of economics in schools and colleges, but we must also seek to reach the larger numbers who do not come into contact with economics in the classroom.

Certain organizations, of which the Committee for Economic Development is an outstanding example, are doing excellent work in analyzing and interpreting current economic problems, in pointing out wise and practical solutions, and in publicizing their findings. The great difficulty, however, is to reach enough people, and to explain to them the nature of our economic system in terms which they can readily understand.

Review Questions

1. Explain the relation of economic inequality to each of the following: (1) poverty; (2) social justice; (3) social stratification; (4) social waste; (5) the business cycle.

2. Why does economic inequality encourage the accumulation of capital?

3. Do you think that an equal division of wealth and income would reduce the total output of the economy? Why, or why not?

4. Explain as fully as you can why incomes differ among individuals and families.
5. How can differences in the ownership of property be explained?
6. Why is income distributed somewhat less unequally than property?
7. Which is distributed more unequally, income or liquid assets?
8. How important are the differences of income which exist between regions and between industries?
9. In 1947 what proportion of "spending units" had incomes under $1,000? Over $7,500? How were these proportions changed after the payment of income taxes?
10. What difficulties do we encounter when we seek to determine the most just way in which to distribute wealth and income?
11. What three major factors should be taken into account in any attempt to determine the distribution of wealth and income which would be socially most desirable?
12. Should estate taxes and income surtaxes be increased, or should they be reduced? Defend your answer.
13. What methods would you suggest for increasing incomes at the lowest levels? For equalizing economic opportunities? For bringing about a closer relationship between productive efficiency and the possession of wealth and income?
14. How might better economic education of the public contribute toward solving the problem of economic inequality?

Problems

1. In a well-known economics text the following statement appears: [9]

"Hence, the first requirement of equality of opportunity would seem to be a thoroughgoing federal estate tax, to prevent the inheritance of large fortunes by individuals and insure their use in the interests of all. If this tax is to do its full share in reducing inequalities, it must take a large proportion of great estates, leaving only a moderate provision for direct dependents. . . ."

Do you agree with this statement? Defend your point of view.

[9] Gemmill, Paul F., and Ralph H. Blodgett, "Economics: Principles and Problems," Harper & Brothers, New York, 1948, Part 5, p. 530.

2. In a little book published during the depression, and intended by its authors to outline a program for achieving prosperity and plenty, the following statement appears: [10]

> We must again make it possible to exchange labor and goods. It can be done, if, instead of producing goods for profit, that is, to make money, we distribute goods as a service. . . . If people were not interested in making money, they would not have to destroy goods, or pay low wages, or make war. It would not matter whether the dollar bills and checks which we use as counters in exchange were made to earn interest.

Do you think this statement is a contribution to the sound economic education of the public? Why, or why not?

Suggested Readings

Bye, Raymond T., and William W. Hewett: "Applied Economics," F. S. Crofts & Co., New York, 1947, Chaps. 21–23.

Bye, Raymond T., and William W. Hewett: "Getting and Earning," F. S. Crofts & Co., New York, 1937.

Federal Reserve Bulletin, "Survey of Consumer Finances," Board of Governors of the Federal Reserve System, Washington, D.C. This study was published in four installments in the June, July, August, and September issues of the *Bulletin* in 1948.

Gemmill, Paul F., and Ralph H. Blodgett: "Economics: Principles and Problems," Harper & Brothers, New York, 1948, Chaps. 27, 28.

Patterson, S. Howard, and Karl W. H. Scholz: "Economic Problems of Modern Life," McGraw-Hill Book Company, Inc., 1948, Chaps. 28, 29.

[10] Goslin, Ryllis Alexander, and Omar Pancoast Goslin, "Rich Man, Poor Man," Harper & Brothers, New York, 1935, pp. 45–46.

16. Labor Problems

Before we begin our study of labor problems certain points should be made clear. Labor cannot be considered as simply an impersonal factor of production. It is now quite popular for many who study economic problems to consider society as a sort of mechanistic organization which can be made to react in one way or another simply by pushing the proper button. We will not make much progress in understanding labor problems if we adopt such an attitude.

In studying labor we must never forget that workers are human beings who are seeking to better their conditions. Laborers must be free to act in any way that they consider best for themselves. However, workers may not always possess sufficient information to act in their own interests, and the fact that they have human feelings and ambitions may result in their exploitation. Scheming politicians, unscrupulous labor leaders, or ruthless managers may induce workers to adopt attitudes or accept conditions which are harmful to them in the long run.

Often the nature of labor problems depends less on the actual condition of the workers than it does on what they think. Workers often have very definite ideas about their jobs, their government, their economic status and their chances of advancement. These factors determine not only the nature of labor problems but also the solutions.

Though we cannot treat labor as just an impersonal factor of production, neither can we, in studying it, ignore basic economic principles. The price of labor, for example, is a cost to an employer which must be weighed just as the cost of any other factor. Moreover, labor costs are a significant portion of total production costs, since wage earners receive 60 to 70 per cent of national income. The outlay for labor reaches 80 per cent of the total production costs in some industries.

Any factor that receives such a significant share of production must conform to certain general requirements if our free-enterprise system is

to function. Labor must be as flexible and mobile as the other factors. It must observe the tenets of free and fair competition. While labor is the human factor and deserves special consideration, there is also a human element in capital, land, and management. These factors are owned by humans; they also are entitled to compensation for their services.

The labor problem. It is common practice to assume that all labor difficulties can be resolved into a common basic problem. The issue, however, is not so simple, because the labor problem varies from time to time, from place to place, and from industry to industry. Security may be the basic issue at one period or in one industry. Elsewhere and at another time disputes may concern wages, working conditions, and the right to organize. Still other issues may concern equality before the law, and economic policies pursued by government in such varied fields as immigration, tariffs, taxation, housing, and the like. Each issue may create dissension between labor and capital, or between labor and the government. One factor, however, is common to all labor issues, namely, the disharmony between employees and management.

It is necessary to study the more common causes of controversy if we are to understand labor problems. Our analysis will be limited to (1) the nature of labor and the necessity for organization; (2) the history and accomplishments of labor unions; and (3) the basic problems relating to labor. Our objective will be to seek satisfying answers to the following questions: (1) What measures may be adopted to improve the welfare of labor? (2) To what extent will these measures promote or retard the general welfare? Our study will be based on the hypothesis that measures that lead to inflexibility of labor, that is, to the *inability of workers to adjust themselves to changing conditions,* will harm labor itself.

Since most people are workers or are dependent on workers, it is clear that labor has the largest stake of any group in the promotion of the general welfare. It is clear, therefore, that labor's position cannot really be improved through any measures which do not contribute to the welfare of the nation as a whole.

What is labor? Before the varied and complex issues which relate to labor are discussed, it is necessary to define the term labor. Labor includes all those who perform services for pay. This definition includes farm laborers, and workers in factories, mines, offices, and the transport

industries. It includes paid managerial workers. It also covers teachers, doctors, lawyers, and ministers, in fact, all professional people. However, we must not confuse this broad definition of labor with that given by labor leaders. Such leaders, while sometimes implying that all labor is included in their definition, have usually meant only organized labor. The labor movement, to these leaders, is concerned chiefly with how to secure more for organized groups.

It is vital to our discussion to recall that only recently have labor leaders been greatly concerned about the conditions under which unskilled labor works. Most of this interest dates from 1935, when the Committee for Industrial Organization was formed. Prior to this time, labor leaders usually were satisfied if they could secure what they desired for their skilled groups. Sometimes they even sided with employers in discouraging unskilled labor from organizing. This attitude was natural from a practical point of view, for most labor leaders were not concerned with idealistic schemes for aiding all mankind. Their prestige and their jobs depended upon their ability to secure higher wages, better working conditions, and shorter hours for their own union members. The skilled workers who made up these unions were chiefly interested in immediate gains for themselves. Moreover, most labor leaders had been skilled workers themselves, and consequently they did not worry too much about labor conditions in general.

In spite of this lack of interest on the part of organized labor, the position of unskilled workers improved greatly over the years. Much of the progress which was made by the unskilled resulted from the fact that labor was a scarce factor in the United States. Employers often were forced to bid against each other for labor, and this caused many employers to improve working conditions, increase wages, and shorten hours, in order to keep their labor force intact. Management often realized that it was good business to improve the lot of the unskilled worker, in order to increase his efficiency and his morale. Governments passed laws in his behalf, and in some cases these laws were bitterly contested by organized labor. Welfare groups also aided. Thus it was that the conditions under which unorganized labor worked gradually improved. Labor leaders often insist that the condition of workers has been improved only through the efforts of organized labor. Clearly this is not correct. Undoubtedly the greatest single factor in raising real

wages has been the increase in productivity made possible by technological progress.

Is organization necessary? The fact that the position of the unorganized laborer has been improved must not be taken as an argument against organization. It is self-evident that the worker standing alone is weak. In many instances he has no property and little if any savings. He is almost entirely dependent upon his wages. Since he must eat to live, he cannot wait until the proper job is offered. He must take what he can get and work under the conditions prevailing in the industry. Some other worker often is willing to take his place if he objects to wages or working conditions. It is because of factors like these that it is necessary for labor to organize.

Our modern industrial society creates conditions which the worker feels he can meet only through organization. With the introduction of mass-production industries, machines have often replaced men. This process has made skill less necessary in some fields, and so has gradually reduced the number of skilled workers. Because under present conditions an apprentice sometimes can become an expert operator in a few days, it is easy to replace any particular worker. Frequently young men are preferred to older men, and so age becomes a vital factor in the ability to earn a living. Because of such conditions, the worker often discovers that he has little influence in determining his wages or conditions of work. He, therefore, seeks to secure by collective action that which appears to be denied to him because of his inability to deal individually with management.

The organization movement. The attempt by labor to organize in the United States was fraught with many difficulties. While organization has been accomplished, it has been accompanied by much strife and misunderstanding. Unscrupulous leaders both in management and in labor have not hesitated to commit or encourage acts of violence. Even when the government has been forced to take a hand, it has at times, for political reasons, favored one group over another.

In spite of the sordid side of its development unionism has made great progress. Prior to the Civil War, various labor movements were discernible in the United States. In the early 1800's many local craft unions existed. Some unions even formed political parties and elected their own candidates during the latter 1820's and early 1830's. However, political action was not generally successful. Some labor leaders, there-

fore, began to think in terms of securing economic advantages only, and many unions abandoned their political activities. These early unions were not well entrenched and they often lost their power during a business depression.

Because of the failure of labor to secure gains by political action, various Utopian schemes originating in Europe were transplanted to the United States. Between 1840 and 1850, for example, Robert Owen founded a cooperative colony at New Harmony, Indiana. Other groups calling themselves "Associationists" were formed, and such men as Horace Greeley and Ralph Waldo Emerson proposed various cooperative schemes to aid workers.[1]

These schemes, however, soon were found to be impractical. With increased prosperity in the early 1850's labor was again scarce and the condition of the workers improved. In this period some skilled trades were able to form unions on a national scale, and a few of these associations became permanent. The Civil War served as a further impetus to unionization. In spite of the depression which followed the war, and which for a time seriously restricted the activities of unions, the idea of a national organization of all workers gained increasing support.

Knights of Labor, 1869–1900. The outstanding manifestation of the desire on the part of labor to operate on a national scale came in 1869 with the organization of the Knights of Labor. Prior to this time only single craft unions were organized on a national scale. The tailors of Philadelphia, however, were dissatisfied with this type of organization and determined to create a union in which every other group could participate. Thus the Knights of Labor took form. It was idealistic from the beginning. Among other goals, it wanted to substitute cooperation for individual ownership, and by this means to secure for the worker a larger share of the wealth he created.

The Knights hoped to secure their objectives by political action. This proved to be a great weakness, because the various groups within the organization had different ideas as to what labor desired. Many of the Knights' objectives were so idealistic that they could not be carried out. The individual member wanted something in the present, not a worker's Utopia which could be reached only in the distant future. In

[1] PERLMAN, SELIG, "A History of Trade Unionism in the United States," The Macmillan Company, New York, 1922, pp. 20–30.

consequence the movement was accompanied by many strikes, fomented by those who wished to secure gains at once. In addition there was much dissatisfaction within the membership because the leaders disagreed as to objectives.

The depression in 1893, together with dissatisfaction, mismanagement of many of the cooperative ventures, and inadequate funds, caused this movement to disintegrate. Its membership had been on the decline since 1886.

American Federation of Labor: 1886– . The failure of the Knights of Labor, which was largely a movement of unskilled workers, did not harm to any great degree the movement by national craft unions to form a general federation. Many craft unions were not in sympathy with the objectives of the Knights of Labor. They realized, however, that some sort of national organization was desirable. In this period they discovered that management was forming strong associations to deal with unions. They were also keenly aware of the progress of large-scale machine operation. The movement to integrate business was also widespread, and this led to the rise of large corporations. Moreover, improvements in transportation widened the area of the market and made corporations truly nation-wide in character.

As early as 1881 several national craft unions had formed a federation, but it was not until 1886 that the American Federation of Labor was actually established, with Samuel Gompers as its first president. Gompers remained in office practically the entire period until his death in 1924.

The federation tried to keep out of political controversies. After weathering the depression of 1893, and taking a nonpartisan attitude during the free silver campaign in 1896, the federation made good progress. AFL leaders claimed their success was based on craft autonomy, plus their reliance on securing economic gains in the present rather than advocating schemes which could only be realized in the distant future. This attitude may have kept the AFL alive, but it also, as we have seen, fostered craft unionism at the expense of unskilled labor.

The craft-union movement grew rapidly during World War I. When the war broke out, Gompers, as president of the AFL, pledged cooperation in promoting the war effort. Labor leaders and management worked side by side in winning the war. As production increased and profits soared, management granted wage increases asked by organized groups.

Organized labor was recognized as a vital force, and workers were willing to join unions in increasing numbers. In this period, unions were established in new industries among packinghouse workers, textile workers, railroad workers, Federal employees, teachers, and others. Another trend was also discernible, namely, that unskilled or semiskilled workers were forming unions. Some of these workers were associated with the AFL, while others organized unions without such affiliation.

By 1920 the organized union movement consisted of the AFL, the Railroad Brotherhoods, and unaffiliated unions. There were more than 4,000,000 members in the AFL unions, and almost 1,000,000 in the railroad brotherhoods and other nonaffiliated unions.

The rise of unions and the increase in membership during the First World War led labor leaders to believe that they were now in the saddle and could increase their gains. They were rudely shocked, however, to discover that much of the cooperation between management and labor ceased when the war was over. This rift was due in part to the fact that management was confronted with a high labor turnover, absenteeism, and strikes in the postwar period. Furthermore, the prosperity in the 1920's made many workers feel that they could secure benefits without joining unions. Between 1920 and 1932 membership in labor unions fell about 40 per cent.

While many external factors contributed to the decline of union power in this period, the unions themselves were in part to blame. Craft unionism was not well fitted to an industrial system in which a large part of the labor force consisted of unskilled workers in mass-production industries. Then, too, the trend toward centralization of power in the AFL unions tended to stifle democratic procedures, and affiliated unions were often dissatisfied with the policies of national leaders. Left-wing minorities sought to control some unions, and this gave unionism a bad name. Graft and racketeering appeared, as gangsters moved into certain unions. Further, jurisdictional disputes caused many labor sympathizers to turn away from the labor movement.

During the period 1920 to 1932 some union leaders advocated policies which were resented by a large part of the public. The Railroad Brotherhoods proposed that the government take over the railroads, and the coal miners wanted nationalization of the mines. In 1924, the AFL actively supported La Follette in his presidential campaign on a third-party ticket, thus reversing its policy of avoiding party affiliations and

of electing friends of labor to office regardless of their party connections.

With the coming of the depression in 1929, the attitude of workers changed. Being out of work and forced to depend upon relief, many workers thought that only through unionization could they better their condition. With the election in 1932 of an administration that was ready to aid the worker, the picture changed, and labor was in the saddle again.

The Committee for Industrial Organization. The impetus given labor by the New Deal was keenly felt in fields dominated by unskilled or semiskilled workers. Such mass-production industries as steel, rubber, and automobiles were organized, and membership in nonaffiliated unions increased rapidly. Officers of the AFL, while authorizing unionization of certain mass-production industries, sought to keep them under the control of crafts. They refused charters to new unions unless they were craft unions. This policy irked those who sought autonomy for unions of the unskilled and semiskilled. In 1935, under the leadership of John L. Lewis, the opponents of strict craft unionism formed the Committee for Industrial Organization, and pushed the organization of workers in mass-production industries. In 1936 the AFL leaders, faced with the prospect of losing their power, suspended every union then in the AFL which had cooperated with the CIO. These suspended unions, however, were not adversely affected by this action. They continued to grow. By the fall of 1937 the CIO had enrolled thirty-two national unions with a membership of over 3,000,000 workers.

The rise of the CIO divided labor and caused much rivalry. Frequently labor unions engaged in jurisdictional strikes, as unions even within the same federation fought for members, while management and the public suffered.

Our review of the labor movement has pointed out how unions were developed. History shows that unions have prospered when they used business methods to secure immediate gains, and when employment and production were at a high level. We noted that until the early 1930's the movement was largely confined to skilled workers, and that gains were sometimes made at the expense of the unskilled and unorganized. It was not until 1932 that labor became a really important force in national politics, and sought to secure by government assistance benefits which it had won previously by business methods. In the years following, unskilled labor was organized into powerful unions.

In order to understand how rapidly union membership has grown, we should recall that in the early 1930's organized labor was at a low ebb. Even after several years of increased union activity, total union membership in 1935 was only about 3.5 million. However, growth was rapid in this period, so that by 1940 union membership had risen to over 8 million. By 1947 it was estimated that the total had passed 14 million and was still rising.

Government and the Labor Movement

Another aspect of the labor problem must be weighed before we consider the basic issues which must be discussed by all students of labor. We have discussed the rise of unions, but little has been said about the aids given to unions, or to unorganized workers, by government.

The first real assertion of political power by labor resulted, as we have seen, from the activity of the Knights of Labor. This organization favored the establishment of the 8-hour day, workmen's compensation laws, income and inheritance taxes, the establishment of cooperatives, and a confiscatory tax on all land rent so that the public rather than private owners would benefit from increased land income. It also favored public ownership of railways, gas and water plants, and coal mines. Such a program could not fail to win some support, and in many states parts of this program were enacted into law. Moreover, in the early 1880's Congress began investigating labor conditions. As a result, the Bureau of Labor was established in 1883.

The primary problems confronting labor leaders in this period, however, were not those relating to improvement of working conditions. Rather, the chief issues were the legality of unions and the extent of their legal rights. These issues could be determined only by organizing unions and by carrying on strikes. Many of the legal questions involved grew out of the common-law doctrines of conspiracy and of the restraint of trade.

The doctrine of conspiracy affects management and labor combinations alike, and had been a source of controversy long before unions became significant in the United States. Under this doctrine many actions which may be legal for an individual are illegal if done through agreement by a group. For example, the English courts usually held that attempts of workers to raise wages or improve working conditions by

joint action were illegal. In earlier times the governing classes of England were generally opposed to attempts to raise wages. In 1350, after the pestilence known as the Black death so depleted the population that wages rose rapidly, Parliament passed a law forbidding anyone from paying wages higher than a "just price." Labor was also strictly regulated during the Mercantilistic period. In the eighteenth century Parliament strengthened the common law doctrine of conspiracy by passing a series of acts which forbade various groups of workers to combine to raise their wages or lessen their hours. Finally, in 1800, it enacted the Anti-combination Act, which made it a criminal offence for laborers to combine for these purposes. This law, however, was gradually modified during the next century, and finally the right of workers to organize to protect their legitimate interests was fully established.

The common law of England was the basis for many earlier court decisions in the United States. In 1842, in a famous decision, the doctrine of conspiracy was stated by Chief Justice Shaw of Massachusetts as follows: "Conspiracy is a combination of two or more persons, by some concerted action, to accomplish some purpose not in itself criminal or unlawful, by criminal or unlawful means." [2] In spite of this definition of conspiracy, Justice Shaw indicated in the same decision his belief that combinations of workers to protect their legitimate interests were legal. However, it was many years before most courts recognized the legality of organized action by workers for such purposes as increasing wages or shortening hours.

The Sherman Antitrust Act was passed in 1890. It was not directed against labor unions, but rather against monopolies or trusts. However, it stated that "every contract, combination in the form of trust, or otherwise, or conspiracy in restraint of trade . . . is hereby declared to be illegal."

In 1895, it was held that the action of labor in the Pullman strike [3] was a conspiracy in restraint of trade within the meaning of the Sherman Act. In 1908, in the famous Danbury Hatters' case,[4] the Supreme Court ruled that the action of the union in seeking to boycott a product was an unlawful conspiracy in restraint of trade. Since the boycott was illegal, every act employed to promote it was illegal. In several other

[2] *Commonwealth v. Hunt,* Metcalf Reports III, Mass., 1842.

[3] *In re* Debs, 158 U.S. 564, 1895.

[4] *Loewe v. Lawlor,* 208 U.S. 274, 1908.

cases, the decisions of the Supreme Court convinced organized labor that the Sherman Act endangered its cause.

By 1914 agitation by both business and labor against the Sherman Act had reached a stage where modification of this law was possible. Consequently, Congress passed the Clayton Act, which contained several sections relating to labor. The Act declared that "the labor of a human being is not a commodity or article of commerce." It stated that "nothing contained in the Anti-Trust laws shall be construed to forbid the operation of labor unions." It also stated that nothing in the Act should be construed to restrain individual members of unions from carrying out legitimate objectives. Also, the Act restricted, or at least sought to clarify the use of, court injunctions. Labor leaders hailed these gains as complete victory. In fact, some considered the Clayton Act to be the Magna Charta of labor. Yet all this law purported to do was to state that labor could organize and carry on lawful activities.

In the early 1920's, labor leaders began to see what a hollow victory they had won. In a series of decisions the courts ruled against unions by declaring against certain types of boycott. The courts also ruled against certain types of picketing. In fact, union leaders claimed that by their decisions the courts had applied the antitrust laws more rigidly to unions than to industry.

Labor leaders determined, therefore, to secure new legislation, and in 1932 the Norris–La Guardia Act, often called the Anti-injunction Act, was passed. The Act imposed restrictions upon the Federal courts by defining the conditions under which they might issue injunctions against labor unions. The Act also specifically declared lawful certain acts of labor which courts in earlier periods had declared to be conspiracy. While the new Act was designed to give organized labor more privileges, labor still maintained that the courts had too much power.

Our study to this point indicates that labor unions were confronted with two basic problems. In the early days, the right to organize was at stake. The issue of whether strikes and boycotts constituted illegal conspiracies in restraint of trade still had to be settled. Later, when this basic right had been recognized, there was still the question of what activities a union could legally engage in. This issue was bitterly fought as unions sought to secure what they considered to be equality before the law.

Labor and the New Deal

While we have reviewed to this point only Federal laws that were passed in behalf of labor, we must remember that prior to 1933 many states had enacted prolabor legislation. In this period of political development, the states'-rights doctrine was still in the ascendancy, and many politicians believed that most labor controversies were subject to state and not Federal control. It therefore became the duty of the states to solve the problems of labor. The Federal government could act only when such disputes interfered with interstate commerce, the use of the mails, or some other function exclusively delegated to the Federal government.

Gradually, however, Federal labor legislation expanded. In 1917, for example, Congress passed the Adamson Act regulating the hours of work on railroads. During the First World War, a War Labor Policies Board and a War Labor Board were created. In 1920 the Transportation Act was passed, and under it the United States Railway Board ruled that railroad companies had no right to interfere with their employees' free choice of bargaining representatives. When this ruling was nullified, Congress passed the Railway Labor Act in 1926, upholding the action of the Board.

It can be seen, therefore, that by 1932 labor had gained much through Federal legislation. Its greatest gains, however, were to come under the New Deal. Time and space will not suffice to consider all of the gains made by labor. A mere recital of some of the more important provisions of New Deal labor legislation will indicate the scope of these gains. Thus, Section 7(a) of the National Industrial Recovery Act of 1933 gave labor important concessions by stating that employees shall have the right to organize and bargain collectively free from interference, restraint, or coercion of employers. The Act also stated that no employee shall be required to refrain from joining a union of his choosing, or be required to join a company union as a condition of employment. In 1934 Congress passed Resolution No. 44 which empowered the President to appoint a National Labor Relations Board, which would hold elections to decide which of several rival unions should be recognized as the legal bargaining representative of the employees in a given plant. It was also

to hold hearings on alleged violations of the law. Other boards for particular industries were set up to aid in enforcement of Section 7(a).

In the enforcement of this law the principle became established that the privileges of employers could be restricted. It became unlawful for employers to present their side of a controversy directly to the workers, or to persuade them not to join unions. Such action was regarded as interference with the right of the workers to organize freely.

When the National Industrial Recovery Act was declared unconstitutional in 1935, Congress passed the National Labor Relations Act which contained most of the provisions of Section 7(a). The philosophy now was that industrial peace could be secured only if employers recognized that unions were necessary and then dealt with them in good faith. Since many labor organizations were supposed to be weak, it became the function of the government to restrict anyone who might use antiunion tactics. It was also the function of government to conduct elections to determine who was to represent the employees in bargaining, and to see to it that employers did not engage in unfair labor practices.

In addition to the laws already enumerated, Congress in 1936 passed the Byrnes Anti-strike-breaking Act. This law made punishable by fine the transportation of strikebreakers in interstate commerce. The government also set up machinery to mediate or arbitrate disputes which arose between employers and employees. A mediation service was created, and in many cases mediation or arbitration was successful.

The belief had long been held by some that disputes could be reduced by raising labor to an equal status with management. This proved to be incorrect. Instead of preventing strikes, the National Labor Relations Act apparently increased them, as various groups sought to secure advantages. The added power given labor led to certain abuses. In a few cases unscrupulous individuals took over unions for private gains. There was also an increased tendency for politicians to play upon the prejudices of labor in an effort to gain power. It is not unlikely that many strikes came from this source.

The Second World War again brought a period of cooperation between management and labor, but the demand of labor for more benefits caused an increase in strikes in the postwar period, when prices rose and restrictions were lifted. Even during the war labor pursued an aggressive policy to secure for itself whatever gains were possible. This policy won

many benefits, because demand was so great that many industrialists were willing to purchase labor peace at any price.

Some of labor's postwar gains may be attributed to the new economic theory which had been adopted by many administration leaders. We pointed out in Chap. 2 that the Keynesian theory of a mature economy was widely accepted during the 1930's. With the end of the war many believed that our economy would again become stagnant. This fear was expressed in a report to the President which stated that a depression within a few months after the war was inevitable unless purchasing power could be kept high. It was predicted that at least 8,000,000 would be unemployed within 8 months after the war. Acting upon this report, the President suggested that wages be increased in order to give the worker the same amount of take-home pay after the war as had been received by him during the war period. It was supposed that this increase in purchasing power would mitigate the effects of the depression.

It appears to be the rule that labor efficiency declines after every war. In the main this is not labor's fault, but whatever the cause, a reduction in man-hour output tends to raise costs and prices. Wages usually climb after a war, when controls are lifted and the pent-up demand of the public begins to assert itself. As prices advance, labor seeks still higher wages, and a price spiral is generated.

It was perhaps natural that labor leaders, encouraged by some of th advisers of the President, should demand higher wages, shorter hours, more security, and better working conditions. Since many of these demands were accompanied by strikes, postwar production lagged and the consumer was unable to secure the goods which he demanded. The danger of strikes in such basic industries as the railroads and the coal mines almost forced the nation into economic chaos. The demands of labor leaders in some cases were unreasonable. Furthermore, labor leaders sometimes refused to discuss their demands until the strike was actually in progress. Thus a breathless nation waited until certain all-powerful labor leaders considered that it was a proper time to bargain.

Many leaders in industry and government realized that labor was in a very favorable position, and that labor leaders were sometimes using their new power for purposes contrary to the public welfare. This led to a demand for curbs on the unbridled power of labor leaders. When a Republican Congress was elected in 1946, the demand increased and

finally, over the veto of the President, Congress passed the Taft-Hartley Act of 1947.

The Taft-Hartley Act of 1947. Whatever the merits or demerits of the Taft-Hartley Act, which was bitterly opposed by labor leaders, its provisions were based on the philosophy that since labor had been granted certain privileges it must accept comparable responsibilities. Under the National Labor Relations Act, or the Wagner Act, employees were given the right to organize and select representatives of their own choosing. Furthermore, it was declared to be an unfair labor practice for the employer to interfere in any way in the organization of unions. Organizers were free to use various kinds of pressure to force employees to join unions. Furthermore, labor leaders could demand that elections be held to determine a bargaining unit, and once it was determined employers were required to bargain with that union in good faith. The result was, as one authority puts it, that the Wagner Act, which was designed as an instrument of labor peace, became a weapon of war.[5] The act created controversies and raised questions where none had been before. It forced the employer into the position of being an opponent of labor, whereas under the law he had no voice in the proceedings. Moreover, employees found that union leaders, the National Labor Relations Board, or even employers and union representatives could barter away their rights. Thus, under the Wagner Act employees found that, while as individuals they were supposed to have more rights, actually they were often forced to accept the dictates of an aggressive minority which was able to win an election and thus secure the right to bargain. The realization that the Wagner Act was causing controversies and confusion led to a demand for changes in the law. The Taft-Hartley Act was the remedy enacted by Congress.

Naturally any act that passes Congress is subject to controversy and compromise. Some provisions of this Act should probably be revised. The same was true of the Wagner Act. We do not expect in a democracy that all phases of any Act passed by Congress will be perfect. Our democratic process is one of revision and compromise, trial and error, and further revision. In the attempt to correct the difficulties which resulted from the operation of the Wagner Act, the Taft-Hartley bill was formu-

[5] FITZPATRICK, BERNARD H., "Understanding Labor," McGraw-Hill Book Company, Inc., New York, 1945, p. 110.

lated. Its official name was the "Labor-Management Relations Act." The preamble to the Act stated in part that "strife which interferes with the normal flow of commerce, and full production, can be avoided or substantially minimized if employers, employees, and labor organizations each recognize under the law one another's legitimate rights; and above all that each party recognizes that neither party has any rights in its relations with any other to engage in acts or practices which jeopardize the public health, safety or interest."

The purpose of the Act was stated as follows: "To prescribe the legitimate rights of both employers and employees in their relations affecting commerce, to provide orderly and peaceful procedures for preventing the interference of either with the legitimate rights of the other, to protect the rights of individual employees in their relations with labor organizations." The law further stated that its purpose was to define and proscribe practices on the part of labor and management which affect commerce adversely, and to protect the rights of the public in connection with labor disputes.

It can be seen that the law retained for labor many of the rights it gained under the National Labor Relations Act. Congress, however, realized that because of these rights, some labor leaders had taken advantage of employers as well as of individual employees. The Act, therefore, sought to prevent such activities, and to place responsibilities and limitations on unions.

The Act specifically stated that some strikes and some industrial disputes result from the refusal of employers to recognize the right of employees to organize and bargain collectively. It therefore specified that employees shall be protected in their freedom of association, of self-organization, and in selecting representatives of their own choosing to negotiate for them. The National Labor Relations Board was continued, but it was enlarged to five members instead of three. This Board was given many powers to protect rights of employees, unions, and employers.

The law stated that the individual employee shall have the right to join or refrain from joining any organization. In this respect it modified the National Labor Relations Act as interpreted by the National Labor Relations Board, the unions, and the courts. However, the individual remained free in this respect only in so far as he was not affected by agreements which required membership in a labor organization as a

condition of employment. How much freedom this gives the individual employee remains to be seen.

The Act defined unfair labor practices, and enumerated all of the practices which were considered unfair in the National Labor Relations Act. However, the Act also enumerated unfair labor or union practices. This was new, and it is this portion of the Act that was bitterly resented by many labor leaders. For example, it became unlawful to cause or attempt to cause an employer to discriminate against an employee. Keen students of labor problems wondered whether employees were finding it difficult to make decisions of their own. Prior to the passage of the NLRA employers often harassed them, and after the passage of the Act union leaders used similar tactics. Under the Taft-Hartley law neither an employer nor a union leader could force the individual employee to refrain from joining a union. Nor could they force him to join a union, unless a majority of the employees voted in favor of a union shop. It is difficult, as a practical matter, to see how the individual employee can resist the pressure of organized labor any more than he could resist the pressure of management. The Taft-Hartley Act specified certain rights which may on occasion stand him in good stead.

Labor unions could also be accused of unfair labor practices if they refused to bargain collectively with an employer. This provision was inserted to force labor to live up to the same rules imposed upon employers under the NLRA. Certain kinds of secondary boycotts were also considered unfair labor practices, such as forcing anyone to refrain from doing business with a firm whose employees are on a strike.

Other practices that are forbidden in this law are: forcing an employer to recognize a union unless it has been certified as a bargaining unit; forcing employers to bargain with one union if another has been chosen; forcing the employer to assign work to one craft rather than another; and requiring employers to pay for services not performed. The law also states that initiation dues into a union shall not be excessive, and it requires that unions bargain in good faith.

It can be seen that these restrictions are not severe. They are simply the kind of practices that one should expect in business. It seems strange, therefore, that union leaders should have opposed this Act so violently and charged it with being a "slave labor" act.

The Act also extended the conciliation service, and voiced the hope that employers and unions would utilize it. Other portions of the Act

specified the conditions under which unions may be sued, defined illegal boycotts, restricted unions from making political contributions, and created a joint committee to study basic problems affecting friendly labor relations and productivity. This committee was to report to Congress so that the law could be amended in the interest of the general welfare.

The Act also contained certain stipulations respecting closed-shop contracts. Such contracts could not be written or renewed in the future. Union-shop contracts, however, were permitted, but only after a majority of workers in an affected plant agree to a union shop. Under the union shop an employee need not, as under the closed shop, be a member of the union when he is hired. However, he must join the union within a specified time after he starts work. The act required financial reports from unions which wish to use the services of the NLRB. Finally, union officials had to sign affidavits denying membership in the Communist party before the union could use the services of the Board. Under this provision the Board has ruled that before an affiliated union can carry a case to the Board, the national officials of that union must sign such affidavits.

Employers gained under the Taft-Hartley Act, since they have greater freedom in discharging employees. All in all, employers have certain rights restored to them, while unions must assume greater responsibilities, and are restricted in some of their actions. The resentment of labor leaders, because of the restrictions, led them to campaign against all members of Congress who had voted for this bill over the President's veto. During the 1948 campaign, President Truman pledged that if re-elected he would seek to repeal the Taft-Hartley Act.

Our brief review of the labor movement has indicated that labor organizations in an earlier period were at a distinct disadvantage. Their early struggle was to secure equality before the law, especially in respect to their right to organize and use the strike as a weapon to enforce their demands. Later the injunction was employed against them, but in time restrictions were put upon its use. Finally, under provisions of Section 7(a) of the National Industrial Recovery Act, and later under the National Labor Relations Act, labor unions secured distinct advantages in bargaining with employers. These advantages gave unions too much power. As a result, in many cases the public and even the government suffered when labor leaders asserted their power. In 1947, the Taft-

Hartley bill was passed in order to curb some of the powers of unions, and force them to assume more responsibilities.

It is not yet clear just what kind of act is needed to secure proper relations between labor and management in order to foster industrial peace. What should be clear to every student of economics is that no special group can be allowed to dictate economic policy for its own purposes, if democracy is to survive. Labor leaders as well as management must realize that power brings responsibility, and that the public welfare transcends the demands of any group.

With this introduction of labor history in mind we are prepared to study certain issues which relate to the labor problem.

Basic Problems Relating to Labor

Our discussion of the rise of labor unions, and of the attempt by the government first to aid them and then to curb their power, was necessary in order to understand two basic groups of problems. One group is legal and the other is economic. These two problem groups, however, are not mutually exclusive, since legal problems arise because of economic issues and vice versa. Some legal problems, moreover, arise because of misunderstanding or of disagreement over basic rights and privileges. Others arise because labor leaders insist that unions have all of the rights and privileges granted to an individual acting in his own behalf. In other areas of our economic system it is generally agreed that power brings responsibility. Because union leaders are reluctant to admit this, certain union practices have brought legal problems in their wake.

Union practices. It is generally conceded that certain union practices are economically harmful and require legal redress. One such practice is to compel employers to hire unnecessary labor. The musicians' union may require that musicians be employed simply to stand by, either when recordings are played or other musicians are performing. In the trucking business, farmers who enter a produce market with their trucks may be forced to pay for the services of a driver, even though the driver is not used. The so-called "feather-bedding" practices in railroads also fall in this category. Similar practices are used in the building trades. It must be self-evident that services paid for but not rendered can only result in higher costs and higher prices.

A second practice is to establish prices for the sole purpose of protecting the amount of employment. In the milk industry, the housewife must pay approximately the same price for a quart of milk whether it is delivered to her home or purchased in a store. There is, of course, a slight differential, but this is considered to be so small that the average housewife will accept home delivery rather than go to a store. As a result of this practice, commissions on store-delivered milk are relatively high. In fact, those who make wholesale deliveries earn an income that may be several times that of the average milkman. This differential in earnings apparently is not resented by the milkman, on the theory that the higher commissions prevent stores from reducing the price of milk enough below home delivery to induce the housewife to buy at the store. In this manner the milkman's job is protected.

A third practice is action by a union to prevent the use of improved materials or more efficient production methods. This practice is notorious in the building and construction industries, but has been used in others where workmen fear greater efficiency would reduce employment.

A fourth harmful practice is to restrict membership in unions. In some cases only relatives or friends may join. Also, the total may be limited. A fifth practice is to issue only temporary work permits except to a favored few, and then to charge large fees for a renewal of these permits. This latter practice has been widely used in certain unions.

A sixth practice is compelling producers or users to pay for the privilege of having certain equipment installed. In some cases no union man will install the item unless the proper fee has been paid to the union. More direct methods of securing payments are used if racketeers have control of the union.

A seventh union practice which is extremely harmful to the public is the interunion or jurisdictional dispute. In such disputes no controversy concerning wages, working conditions, or the like may be at stake. It may simply be a question of which union is to perform certain tasks. In such disputes the employer may be ruined or the public suffer great inconveniences. Yet no basic issue is being solved to better the status of the laborer.

Finally, an issue of long standing still remains to be solved. That is the question of boycotts. The courts have not been consistent in defining this issue. Some writers in seeking to solve this issue have divided boycotts into two divisions, namely, primary and secondary. A primary

boycott is one in which only those directly involved participate. Examples are picketing by members of a union in a strike, or refusal by members of a union on strike to purchase goods of the producer against whom the strike is directed. In contrast, the participants in a secondary boycott are not directly concerned in a dispute.

In general, a secondary boycott is the exertion of economic power against an employer not involved in a labor dispute. The objective of the pressure is to force him to influence an employer directly involved to grant union demands. As has been pointed out, the courts have had no consistent policy toward such boycotts. While some distinction between a primary and secondary boycott can be made, the legality or illegality of boycotts is difficult to determine.

Since the Norris–La Guardia Anti-injunction Act was passed in 1932, Federal courts have been reluctant to issue injunctions against boycotts. In fact, courts have in several cases implied that most practices of this nature by unions are legal, since it is the union's purpose simply to strengthen its bargaining position. Since the elimination of competition between union- and nonunion-made goods is claimed to be legal, all acts performed by unions in securing this objective are presumed to be legal. We have seen that some attempt was made in the Taft-Hartley Act to clarify this issue.

Some Problems of Union Organization and Union Policy

Another series of issues relate to union organization and policy, and the effect of these on labor flexibility, or the power of workers to make adjustments to changing conditions.

Size, and union organization. The first basic issue relates to the question of size as it affects union organization. One of the significant lessons of history is that bigness reduces the ability of an organization to adjust itself to changing conditions. This lesson has been clearly demonstrated in respect to governments and business. The attempt of governments to organize all groups into one large economic unit sometimes has led to dictatorship and to war. In business the result has sometimes been stagnation.

It is now generally agreed that any economic group must be prevented from getting too much power if our free-enterprise system is to survive. What these limits of power are cannot be stated in specific terms, for

they will vary as between industries and types of organization. However, it would not be for the general welfare to allow all of the automobile manufacturers to combine and form one organization. The same is true in regard to steel, oil, or any of our basic industries. It is generally recognized that such combinations would produce greater evils than any possible benefits that could be gained by eliminating whatever wastes there are in competition.

However, the danger of mere size has not been learned in regard to labor unions, for there the trend has been to concentrate labor's power into larger and larger units. Little consideration has been given to the fact that, because labor is human, it is all the more necessary to halt any trend that would force free men to submit to large centralized organizations, no matter how worthy.

The first issue, therefore, is whether union organization should be allowed to attain such a size that the individual is submerged. There are many arguments in favor of large unions. Among these are the need to secure unity of action in bargaining, the need for ample funds, and the necessity of securing competent leadership and staffs if the union is to bargain successfully. It is also maintained that a union's jurisdiction must embrace as wide a scope as does that of management. Hence, industry-wide union organization is necessary.

Critics maintain that unions have gone beyond management in forming nation-wide combinations. The miners' union, for example, presents a united front in both the hard and soft coal industries, in spite of the fact that these mines are owned by various corporations. The Railroad Brotherhoods and many other unions extend beyond the boundaries that are controlled by any single management. Many of these unions exert a degree of monopoly power which, if possessed and used by management, would be condemned under the Sherman Antitrust Act.

Some critics insist that monopoly, no matter where found, must be either destroyed or regulated. They assert that monopolies in labor can only lead to monopolies in industry and eventually to socialization of industry. Under the pressure of the demands of labor, management would have no recourse but to standardize wages and working conditions, on terms dictated by labor. This practice would undoubtedly bring exploitation of consumers. Such action, critics insist, can only lead to a static and inflexible economy which in the long run would harm labor. It would also force increasing government intervention.

Critics present a further argument. They assert that labor leaders are reluctant to assume responsibilities commensurate with their power. In the past, at least, some labor leaders have failed in this respect, and have used their power to promote their own purposes without regard to the general welfare of the workers and the public. Unless labor leaders as well as management assume responsibilities commensurate with their power, our economic system will cease to function in the interest of the general welfare.

Union policies. Various union policies limit the freedom of workers and their ability to make adjustments to changing conditions. For example, it is maintained that many unions do not have free elections at definite periods. This allows union leadership to assume dictatorial powers which may be wielded contrary to the wishes of the workers and contrary to the public welfare.

In many unions members dare not criticize official action for fear of being suspended. In some unions a member may be expelled if the executive board decides he has not acted in an approved manner. A union member thus expelled probably could not secure work in his field; hence suspension from the union is the equivalent of an economic death sentence. Critics insist that no group should have the power to suspend a member except for certain well-defined offenses. Here, then, is an issue that must be given careful consideration, for this practice still prevails in some unions.

Another issue concerns the closed shop. Labor leaders consider that the closed shop is necessary if discipline is to be enforced. Critics, however, object to the closed shop because it forces a free citizen to join a union. Such coercion is held to be contrary to the American way of life.

Labor leaders have argued in favor of the closed shop because they maintain that only by organization has labor's welfare been improved. Hence, all laborers should share the risks and contribute to the securing of these gains. There is much to be said in favor of this viewpoint. Nevertheless, because certain benefits accrue, the student should never close his eyes to possible evils. The Taft-Hartley Act outlawed the closed shop, but permitted the so-called union shop. Where a union shop exists, new employees must join the union within a specified time.

Still another issue relates to the requirement in some unions that all members contribute to political action funds. Labor leaders insist that

they must elect representatives favorable to labor, and that all members should help meet the expenses. Critics assert that labor leaders should not attempt to regulate the political life of labor. They insist that the individual should have the right to make up his own mind in respect to his party affiliations and the candidates for whom he votes.

Union organization. Finally, a series of issues arises which, although they indirectly relate to union organization, still are part of the general problem of control of unions. These concern the conduct of strikes and picketing. The issue here is: What responsibility shall unions assume for acts committed by their members when they are on strike, or when they are on the picket line? The courts are not clear. The fact must be faced that law and order must prevail to protect property and individuals. The issue here is whether, during a strike, labor has more rights than it possesses when not on strike.

We cannot discuss the implications of these issues at this point. It is sufficient to point out that very serious problems relating to union organization, policies, and practices are still with us. The manner in which they are settled will determine to a large degree whether the labor market will retain sufficient flexibility to serve the general welfare.

Labor Productivity

One of the most significant problems related to labor is how to increase productivity per man-hour. We know that the productivity of labor has risen greatly over the years. How much of this increase can be attributed to labor, as the result of greater knowledge, greater skill, or harder work? How much of it must be attributed to other causes? Have real wages increased in proportion to the increase in the output of labor?

Some experts maintain that it is difficult to increase the productive efficiency of the worker.[6] They point out that the net increase per man-hour is affected by many factors other than an increase in worker efficiency. Suppose data are presented showing that at one time the average output per man in a certain industry was 25 units per man-hour worked, while at a later time in the same industry the output per

[6] See National Industrial Conference Board, Inc., "Studies in Business Policy," No. 15: "Measuring Labor's Productivity," Jan. 17, 1946.

man-hour was 50 units. It is clear that the productivity per man-hour has doubled. But does this higher productivity mean that the worker has become more skilled, or that he works harder, or is the greater output due to greater managerial "know-how" or better machines? A rearrangement of the plant, a change in hours worked, the use of more power, or new machinery installations may make it possible for a worker to double his output with less skill and less physical or mental effort than was required before. It appears clear, therefore, that increases in man-hour productivity may not measure increases in labor efficiency at all. It would be a mistake to use such data to argue that labor productivity has increased in the sense that the increase can be attributed primarily to labor.

The fact that increases in output per man-hour have come at the very time when the actual amount of physical effort has declined has led many students to the conclusion that it is the increase in *capital investment* per man employed that accounts largely for the increased productivity. If this is true, an increase in the standard of living can only come by increasing the amount of capital per worker. This conclusion contains certain implications which must be carefully considered. Since wages are determined by bargaining, unions may secure such a large share of the total revenue of some industries that management will be unable to attract capital. Without additional capital, productivity cannot be increased; hence wages cannot be raised without an increase in capital.

If this conclusion is correct, then it can be seen that our standards of living may decline if wages increase too fast under the pressure of organized labor. The result would be a rapid rise in prices which would restrict consumption. Further, the money wages of workers would rise, but not necessarily their real wages. Much of the increase in wages in recent years has been a delusion, because prices have risen too. Moreover, some of our experts maintain that the chances are poor for further increasing the amount of capital per worker. If this is correct, we can only conclude that wages cannot be advanced rapidly in most industries in the future, without affecting prices and thereby adversely affecting consumption, employment, and standards of living.

It is clear, therefore, that if it is chiefly by new investment that real wages can be increased, labor will suffer if such investment is discouraged by the insistence that the entire fruits of progress go to labor.

Labor leaders, therefore, should consider carefully the long-run effects of their demands for repeated wage increases. This pessimistic view of a rapid increase in wages is not accepted by all writers. We have pointed out that many of our economists look forward to much growth in our country, and that because of this growth they expect that the demand for capital will be enormous. If their expectations are realized, over-all productivity will increase and the worker can and will achieve a higher standard of living. It must be understood, however, that this objective can be achieved only if those who supply the capital can secure a rate of return which they consider to be sufficient to warrant further investment. This rate need not be excessive but it must be attractive.

Another fact must be considered. Much of the growth of unions and of the power of labor leaders is due to the tangible results which have been produced. A labor leader who can point to higher wages, better working conditions, shorter hours, and more security stands an excellent chance of remaining in office. Suppose, however, that such gains in the future should be relatively minor. Will the average employee still continue to put his faith in organization, or will he be inclined to depend upon the enforcement of his rights by legal means under the shield of government? Labor leaders fear he will turn away from the union unless he can see continued concrete benefits in membership.

Inflexibility of labor. A second basic factor affecting productivity and wages, and hence labor's standard of living, is the inflexibility of labor. It is a common characteristic of all individuals to resist change. Labor is no exception. Yet it is resistance to change that often prevents progress and hence prevents an increase in the standard of living. Many workers are willing to work at one job only and to do that job in a certain way. The worker resists any change in methods of production. In many trades, the most notorious of which are the construction industries, such resistance has resulted in high costs. Partly as a result of these high costs, the building trades have often suffered from excessive unemployment, and hence low annual incomes for workers, even though hourly rates were high.

Geographical immobility of labor. A further factor is the geographical immobility of labor. Every human being is tied to a community by various bonds. These ties must be recognized, but every effort must be made to encourage labor to move to those communities which have the greatest demand for labor. A revival of that pioneering spirit which animated the

frontiersman would do much to increase standards of living. The problem is to make the average laborer aware of the opportunities elsewhere. Fortunately a start has been made through the establishment of employment services. However, much still remains to be accomplished. Any increase in the geographical mobility of labor will raise living standards.

Hours of labor. A third problem which affects productivity and wage income is the hours in the working week. Enlightened management has now accepted the fact that lengthy hours of work may decrease rather than increase output. The government has also recognized this situation, and has passed the Wages and Hours Act to prevent excessive hours of labor. Primarily because of fear of "working themselves out of a job," many laborers have subscribed to the "spread the work" or short work week. The effect of the length of the working week on productivity is one to be determined scientifically. It may be politically expedient for politicians and labor leaders to advocate a 20- or 30-hour week, but in most industries such a short working week may not be economically feasible, or it will lead to a severe decrease in output. The length of the work week must be considered first of all from an economic point of view, and the conclusions reached must be based upon a careful understanding of basic facts as they relate to the worker's output. Often the worker must choose between more leisure and more income.

Foreign competition. A fourth factor affecting standards of living, especially in the United States, relates to the competition which labor faces from the outside world. Over the years we may expect that management and labor all over the world will adopt many American methods of production. With such knowledge at their command they will produce goods in competition with the American worker. If the worker in this country insists on hours and conditions which place management at a disadvantage with producers in other countries, foreign labor will gain at the expense of the American worker. Labor leaders and management have often advocated tariff walls to protect the so-called American standard of living. We now know that such barriers are no solution. Here is a serious problem which labor must face if it is to increase, or even maintain, its standard of living.

Economic security. A final problem relating to productivity is the question of economic security. This is so significant that a chapter will be devoted to its analysis. At this point, however, some of the implications of economic security should be noted. It must be understood that

economic security has a price, although it may produce many benefits which may lead to greater output. Unless greater security leads to a rise in output sufficient to meet its cost, the result will be a lowering of the standard of living. For example, unless output is increased, if old-age benefits cause retired people to consume more goods, workers still on the job must consume less. Many economists are convinced, however, that economic security will more than pay for itself, and that therefore from an economic point of view it is worth the price.

Legal problems. If the worker is to achieve a higher standard of living, he must not only have the opportunity to work under the most efficient working conditions. He must also be assured that his legal rights are being protected. We have discovered that he has many rights in respect to organization and union activity. The state has allowed him to strike and to use many tactics in carrying out strikes. The average employee, however, must have further legal rights. He must be assured that he is free both from the power of the employer and of the labor leader. We have seen that labor leaders assume that labor is free if it is organized. However, some labor leaders are tyrants, and so individual employees must have protection against them. We have discovered that one of the purposes of the Taft-Hartley Act was to assure the individual employee more rights. It must be clear, however, that whatever legal rights the worker achieves he must be prepared to accept the responsibilities that go with them.

Labor participation in management. So far we have stressed problems which must be solved if labor is to increase its standard of living. While the emphasis has been upon wages, a standard of living includes such factors as hours and conditions of work, and whatever else affects the laborer in securing a living. Another factor must be considered. If labor is to secure its highest productivity, it must be supervised by an intelligent and efficient management. It does labor little good to work hard or work long hours if it is not wisely directed. Hence management policies are of vital concern to labor. This question often is asked: To what extent shall labor, which after all has a vital stake in production, have a voice in management? If labor is given a voice in management, what responsibilities shall it assume?

Management in the main has resisted the suggestion that labor share in production policies. One argument is that labor would determine policies, but the owners would bear the consequences if the policies

proved to be unwise. Another is that efficient management requires undivided authority. Much can be said for this point of view, but labor should not be required to accept low pay or tolerate bad working conditions because of the inefficiency of management.

Both labor and management have usually considered this question from the aspect of their own advantage. Too much heat and too little light have made this vital subject controversial, whereas it should be weighed in the light of its effect on national welfare. Since many labor leaders are dedicated to resisting change, they are likely not to favor the use of new methods to increase productivity. Further, they often assume that management is reaping great profits when this is not true. In some industries, such as the railroads, the demands of labor have been such that no cooperation of labor in management would be possible. In the railroad field labor would be forced to make some sacrifices in the short run in order to reestablish the industry on a sound basis. This is also true in other industries.

Management itself has not always been farsighted in adopting scientific aids. In some instances management has not called upon labor for aid, or taken it into its confidence, when installing new equipment or experimenting with new devices. Labor probably would aid in solving management's problems if management showed a more cooperative attitude in such cases.

Proposed Solutions of the Problems of Labor

Our survey has pointed out that two main issues must be considered when labor is being discussed. These are (1) the nature, purpose, and functions of labor organization; (2) wage rates and their determination. It was discovered, however, that before these two issues could be discussed, one vital problem must be kept in mind, namely, that labor as a factor of production must remain reasonably flexible. Labor must be able to adjust itself to changes in our economic system. We noted that labor has the largest stake in our economic progress, that labor is free, and that it therefore occupies a preferred economic position. Yet, it was pointed out, labor has not taken full advantage of its opportunities, and in consequence has lower standards of living than it might otherwise have achieved.

We based this conclusion on the fact that a prime objective of many

labor leaders has appeared to be to resist change. We noted that in their attempt to retain gains made, leaders have refused to adopt new methods for fear that labor would be harmed. Yet, all must recognize that we live in a dynamic society, which is characterized by change, and constant adjustments to these changes are necessary if we are to make progress. The solution for many of labor's problems, then, appears to lie in making union organization more flexible.

The need for change in union organizational policy. Unions have been criticized for unwieldy size, monopoly, failure to provide for free elections, inability of members to criticize leaders, the closed shop, political action, strikes, make-work policies, and the like. The effect of union organization and union policies on labor's welfare must be weighed. We have noted that critics insist that certain aspects of union policy do not serve the long-run interests of labor. Careful consideration should be given to such criticisms. One important task of those who would solve the labor problem is to analyze all union activities to determine which are wise, and which should be abandoned or modified.

Needed changes in union policies toward wages. Some of the most basic labor problems relate to wages and their determination. While wage issues cannot be entirely separated from questions of union organization and practice, yet they require special treatment because many people grossly misunderstand the nature of wages. We have pointed out that the wage issue relates to the question of productivity, to the flexibility and mobility of labor, to competition from other countries, and, finally, to the attainment of economic security.

One wage problem results from the fact that in many instances wages have become inflexible. For example, wage rates usually can be changed only by negotiation and bargaining, with labor leaders insisting on increases in periods of rising prices, and resisting decreases when prices are declining. Such a policy indicates a misunderstanding of the nature of wages. Basically, wages represent purchasing power; hence real wages and not money wages are significant. To insist on always holding the line on money wages in the face of a declining demand accompanied by lower prices is to invite unemployment and loss of income for labor. Labor must be encouraged to think in terms of real wages instead of money wages, for it is *purchasing power* that determines the standard of living. A flexible wage policy, therefore, is essential in aiding labor to further its welfare.

A second wage problem relates to differences in wages. Since the rise of mass-production industries, there has been a trend toward establishing uniform wage rates for all who work at similar jobs. Much has been accomplished by scientific job analysis, incentive wage plans, and the like, but in many fields a single wage scale is adopted that applies to all who do the same kind of work. A wage scale of this nature encourages mediocrity, for output will tend to be determined by the pace of the poorest worker. More study should be devoted in such industries to the determination of a wage scale which will reward the worker on the basis of individual ability. Since basically all wages arise from productivity, those who produce more should be paid more.

A third wage problem is whether it is possible and desirable to guarantee workers certain minimum annual wages. If labor is to be used most efficiently, and if waste is to be reduced, especially that due to unemployment, some system must be devised that will encourage management to utilize labor at all times. There is no better kind of security than assured employment. With this in mind, a few business enterprises have adopted plans which guarantee workers a minimum amount of wages or employment annually. In a later chapter these plans will be examined. At this point, only a few of their basic principles will be noted. These are as follows:

1. Management guarantees to the worker a minimum income for a period of time. Sometimes this may be for three to six months, but more often for a year or longer.

2. Some plans allow for wage-incentive or profit-sharing programs, to encourage the worker to produce at his greatest capacity.

3. Some plans guarantee employment rather than a definite amount of wages.

It can be seen that basically these plans seek to aid the worker, and still retain some flexibility as far as his wages are concerned. Yet it must be understood that guaranteed wage plans can succeed only under certain conditions. These plans cannot in themselves prevent depressions, and therefore they are not substitutes for other policies designed to maintain the level of employment. Neither are they a substitute for social security, especially as it relates to accident and old-age insurance. However, they may be integrated with social security, and contribute something to the moderation of cyclical fluctuations.

The great contribution to society of annual wage plans, where they

are practical, is that they save man power. Industries adopting such programs must stabilize their manufacturing procedures. By this method they can produce with fewer men, and avoid layoffs on short notice, or the necessity of hiring and training new men for short peak periods, all costly procedures. Extensive overtime also is reduced.

A fourth wage problem grows out of attempts to encourage labor efficiency and effort by enabling labor to share in the profits and losses of a company.[7] Some companies have discovered that their total wage bill remains fairly constant in relation to the value of sales. In other words, the wage bill varies with sales. In order to encourage efficient production, some few companies have allocated a certain portion of their gross income to wages. They have then advised labor what this portion is, and have allowed labor to determine how it should be divided. If labor, for example, is allocated 10 per cent of the total sales, and if this is divided among 1,000 men, each will secure a certain amount. Now suppose that labor by increasing its efficiency can do the work with only 900 men, and suppose that sales remain the same. Then each of these 900 men would receive more. It is true that 100 men would no longer be needed. However, in a period of prosperity enough men would leave their jobs voluntarily to take care of this problem. Wages are flexible under such an arrangement, since they vary with sales, and they also provide an incentive for the worker to try harder. Programs of this sort should be studied carefully to determine how they can be expanded to benefit labor and aid the public.

Before we conclude our study, one other point should be made clear. We have stressed the need for flexibility if labor is to secure its proper share of the national income. We have emphasized that every effort should be made to foster competition as an effective regulator. We should be aware of the fact, however, that there are many economists who now believe that competition is no longer a very effective force in the economy. We must now ask: Suppose competition is no longer an effective force in the market, and suppose further, that the other factors are inflexible, should labor then remain the only flexible factor?[8]

The answer to this question by those who have no faith in competition

[7] KING, W. I., "The Keys to Prosperity," Constitution and Free Enterprise Foundation, New York, 1948, Chap. 19, pp. 211–220.

[8] DILLARD, DUDLEY, "The Economics of John Maynard Keynes," Prentice-Hall, Inc., New York, 1948, pp. 216–222.

is distinctly no. They insist that labor need not be flexible in order that the economy operate successfully. They maintain, rather, that the government, by instituting a proper fiscal policy, can so regulate the economy that labor can enjoy full employment without the necessity for making many of the adjustments which have been proposed. In fact, if the economy is mature or if competition fails to function effectively, the only recourse left is some type of government action. Students of labor, therefore, must consider this possibility. Many of the proposals which have been advanced to correct the unstable factors in our economy are designed to make it unnecessary for labor to adjust itself fully to changing conditions.

While this point of view has many adherents, and while it must not be dismissed lightly, there still appears to be great merit in seeking to organize the labor market in such a way that it can make adjustments to changing conditions. If possible the government should aid workers in making the necessary adjustments, without stifling competition as an effective force in our free-enterprise system.

Conclusions

Our study of labor problems has been directed primarily to those conditions which have prevented labor from securing the greatest benefits from organization. We have pointed out that labor must organize if it is to achieve maximum benefits. Yet, organization in itself, no matter how worthy its purpose, cannot achieve beneficial results if shortsighted and mistaken policies are used. We have examined certain policies which are contrary to the long-run interests of labor. We have not emphasized the beneficial results which organization produces. We have indicated that labor, like any other factor of production, can only achieve maximum efficiency by remaining flexible, that is, by adjusting itself to changes as they occur. We found that many union practices tended to prevent labor from making such adjustments, and we insisted that such practices were not only preventing the economy from functioning properly but were actually harming labor itself.

The need for careful regulation of unions was stressed, for a union is simply an organization of men, and must be treated as such. When we understand that every organization, no matter how worthy its objective, must subject itself to the public interest, then we will appreciate

the need for careful supervision of unions. As was pointed out, most corporations are intended to promote the well-being of the organizers. As a result, management has often failed to understand its responsibility to the public. It was necessary for government to regulate these corporations, and carefully define their rights and duties in the interest of the general welfare. This procedure must also apply to unions.

The second aspect of our study related to wages and wage practices. Here again emphasis was placed upon those policies which are not in the long run to the interest of labor. We stressed the need for flexibility in wages, since any attempt to impede adjustments prevents the system from functioning for the greatest benefit of all.

In this chapter, no mention was made of the great conciliation services instituted by the government, nor was stress placed on the possibility that compulsory arbitration measures may be required if labor and management cannot settle their own differences. Since both labor and management are against compulsory arbitration, we have assumed that they will try to achieve harmony without compulsion. However, neither labor nor management can rule it out. We have also paid little attention to the valuable employment services now furnished by the government. Likewise, the valuable services given by the various bureaus in the Department of Labor have not been mentioned. These and other significant topics relating to labor have been omitted because of the space limitations imposed by an attempt to deal with labor problems in a single chapter.

Our survey indicates that many problems relating to labor remain to be solved. Some of them will remain until other problems in our economy are settled. Yet labor leaders, by using wise policies and by exercising foresight, can do much to promote the general welfare of labor while at the same time placing the whole economy on a more stable basis.

Review Questions

1. What is the labor problem?
2. What is labor in the economic sense? Is this the meaning implied when labor leaders speak of labor? Why or why not?
3. Why is labor organization necessary? Describe briefly the problems labor leaders encountered when they first sought to organize labor.

4. What is the difference between the AFL and the CIO?

5. In what ways has the government aided the labor movement?

6. What was the basic philosophy of those who advocated the Taft-Hartley Act? Did this act accomplish its objectives? Why or why not?

7. Can labor problems be divided into those that are legal and those that are economic? If so, give examples of each type.

8. What is the difference between a union practice and a union policy? Illustrate each.

9. What are the ways in which labor inflexibility is manifested?

10. If American labor is in danger of foreign competition, how can this problem be solved?

11. What solutions do the authors propose for the labor problem? Will these solutions lead to labor flexibility?

Problems

1. One of the most serious problems affecting labor is that of immobility, that is, inability of labor to change from one job to another or, more significant, to move from one community to another as demands shift from area to area. Our problem is how to stimulate mobility, especially of this latter sort. Some writers suggest that many of the measures adopted to aid labor reduce mobility. In the past immobility of labor was attributed to lack of knowledge, the financial costs involved in moving, community attachments, and the like. Today, however, there are additional barriers to mobility such as unemployment compensation, union barriers, seniority privileges, pensions, and group insurance.

Do you think that these new so-called barriers are preventing mobility and thus defeating their own purpose of aiding workers? If you do, what remedies would you suggest? If you do not, what arguments can you present to defend your position that these factors do not decrease mobility? Do you think that the value of these measures more than offsets any possible decrease in mobility? Why or why not?

2. Professor Slichter, in a study published by the Chicago Association of Commerce and Industry in 1947, maintains that there are seven principal criteria used in negotiating wage changes. These are (1) the minimum necessities of workers; (2) changes in the cost of living; (3) maintenance of take-

home pay in the face of reduction of hours; (4) changes in the productivity of labor; (5) the ability (or inability) of the employer to pay; (6) the alleged effect of higher or lower wages upon consumer purchasing power and employment; (7) the wages paid in other industries or places. He states: "The first of these criteria is particularly important in administering minimum wage legislation, but is also frequently used by unions in wage negotiations. The third criterion is used only by unions. The remaining five criteria are used by both employers and unions."

Point out the significance of each of these criteria in wage negotiations. Which do you think should be given the most weight?

3. Willfred I. King, in his book "The Keys to Prosperity," published by the Constitution and Free Enterprise Foundation in 1948, discusses the share of labor in any new spending by business, individuals, or government. He states:

> The indications are, indeed, that, whether the labor supply is free or monopolized, whether government plays a major or a minor role, whether industry is prosperous or in the depths of depression, the nation's wage and salary total tends to absorb about 64½ per cent of the aggregate of net spending power available. . . . It appears, furthermore, that, under such circumstances, struggles by employees to enlarge their percentage of the nation's supply of new spending power are foredoomed to failure, and succeed only in creating strife and hatred, and lowering the national income and with it their own total pay. (Pp. 163–164.)

All through his study on wage relations, Dr. King points out that the data show that labor's share tends to remain fairly constant.

Do you conclude from this analysis that unions are unnecessary? Why or why not?

4. Dr. King also reaches this conclusion:

> In practice, moreover, when new spending power shrinks, employment also shrinks. However, it must be remembered that, if wages and other prices were all perfectly flexible, a shrinkage in the volume of new spending power would cause no decline in either the volume of physical production or the volume of employment. . . . In reality, however, no such flexibility does exist. Production does stop. Unemployment does appear. . . . (P. 175.)

a. Explain why, if wages and prices were perfectly flexible, a reduction of spending power would not reduce production or employment.

b. How might wages and other factors of production be made more flexible?

5. Recently 175 guards in a certain plant went on a strike and established a picket line. Other union workers not involved would not cross this picket line, so they were forced to be idle. This plant employed about 30,000

workers. Other companies were dependent upon the output of this plant. Because they could not secure this output, they were forced to close their doors, and this affected another 400,000 workers who were not involved in the strike.

a. Without considering the issue, but simply assuming that either management or labor was at fault for allowing conditions to develop which affected so many workers not directly concerned, would you be in favor of some law which would prevent a strike of this nature? Why or why not?

b. If you believe such a law should be passed, what should be the nature of this law?

c. If you believe no law should be passed, what methods would you suggest for preventing a situation of this sort?

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1921	*Duplex Printing Press Company v. Deering*	254 U.S. 443
1923	*Adkins v. Children's Hospital*	261 U.S. 525
1937	*West Coast Hotel v. Parrish*	300 U.S. 379
1938	*National Labor Relations Board v. Fansteel Corporation*	306 U.S. 240
1940	*Apex Hosiery Company v. Leader*	310 U.S. 469
1941	*United States v. International Hod Carriers*	313 U.S. 539
1941	*United States v. Building and Construction Trades Council*	313 U.S. 539
1943	*United States v. American Federation of Musicians*	318 U.S. 741
1945	*Allen Bradley Company v. Local No. 3, International Brotherhood of Electrical Workers*	318 U.S. 797
1945	*Hunt v. Crumbock*	329 U.S. 821

17. Social Security and the Problem of Personal Hardship

Despite the comparatively high degree of economic well-being in the United States, not everyone can accumulate enough to cope with all the financial problems he may have to face. Relatively few are self-supporting in old age or have large enough savings to last through a prolonged business depression. The economic insecurity of the individual has been intensified by our industrial civilization with its millions of urban workers entirely dependent upon their jobs. It is not surprising that collective action to cope with personal hardship should be undertaken on a large scale.

Most western nations have tried to cope with personal hardship through the establishment of a social-security program which provides old-age pensions, temporary income for the unemployed, and various benefits for the unfortunate members of society. In the United States, the social-security program is comparatively new, and many proposals for expansion are being advanced. Because of the war and postwar inflation, benefits under the government plan are very inadequate. Labor unions and other organizations have urged that private employers assume greater responsibility toward their workers in regard to disability and old age.

Our task in this chapter will be to examine the Federal system of social security and also to study some of the methods used by private enterprise to meet the problem of personal hardship. We also must weigh the costs of additional benefits against the burden they will place on our Treasury. It will be our purpose to investigate whether public or private security programs increase or decrease the stability of our economy.

The urge toward security. The turbulent times of recent decades have generated a strong drive among peoples everywhere to attain security. A world-wide depression throughout the 1930's, followed by the Second World War, created great personal hardships from which few escaped. The rise of the European dictatorships during the 1930's can be attributed in large measure to the desire for economic security. In nations where democratic processes were widely cherished, the people swept into power those leaders who agreed to expand social-security programs or otherwise to protect the individual against the hardships which periodically appear in an industrial society. The American social-security system was established during the great depression.

Our social-security program appears to be entering a new and interesting phase. During the years before the Second World War, we went through the initial stages of establishing a program. Evolution of the Federal system was interrupted during the war years, but the clamor for expansion has been intensified since V-J Day. There also has been a demand for insurance against additional hazards. Health and disability insurance have been high on the list. Free medical and dental care are wanted by some and condemned by others. In the area of unemployment insurance, larger benefits and a longer period of payments are demanded. The individual wants protection from the economic hazards of old age, unemployment, and sickness, and he turns to government to get it. It is an entirely different type of thinking from that of only a few decades earlier, when the individual accepted for himself the responsibility of providing protection against economic hazards.

There has been another interesting phase of our urge to achieve security. Many of our business concerns have voluntarily made provision for their employees who retire or become disabled. We shall discuss some of these plans. However, a number of the large American labor unions have heeded the desire of their members for more protection against economic hazards. They have presented demands for pension and retirement plans and for other benefits to go to sick or disabled workers. John L. Lewis and the pension plan of the United Mine Workers were front-page news in the early postwar period. The success of the UMW in winning this program encouraged other unions to go after something similar in the way of industry-financed plans. Philip Murray, President of the United Steel Workers, and Walter Reuther,

President of the United Automobile Workers, were among the labor leaders to win employer-financed pension and retirement plans in major mass-production industries. Walter Reuther, speaking before a national educational conference, presented his argument in these terms: "Every year management puts aside as normal operating costs a budget for replacement and maintenance. It is just as legitimate to set aside money to put its workers in good health. Industry must recognize its responsibility to the people it employs as well as to the property it employs."

Mr. Reuther's statement does injustice to the large number of employers who have voluntarily assumed an increasing responsibility for the welfare of their workers. As we shall see, private-welfare plans have made important progress in industry. Such a statement by a top-flight labor leader also emphasizes the efforts of many Americans to shift to others the responsibility for economic welfare. It implies that there is some magic well from which more and more benefits can be drawn without the necessity of hard work.

The clamor from the unions for industry-financed security measures has often brought the question from outsiders: Do we need a greatly expanded Federal old-age insurance if millions of employees, represented by the unions, go after industry-financed retirement plans? The unions say that they need and want both types of assistance. They argue that the government should provide a minimum level of income for the aged, and that upon labor falls the obligation of winning whatever supplementary programs can be obtained. On the other hand, some industrial leaders have advocated increased social security benefits in order to absorb part of the load strong unions have tried to force on employers.

The necessity of maintaining perspective in our urge to achieve security becomes apparent. There is no doubt that society must act to mitigate the hardship of its less fortunate members. Events of the past three or four decades have demonstrated that many deserving persons appear to be helpless in the face of depression and other kinds of economic disaster. On the other hand there is real danger that pressure groups, playing upon the desire for security, can push through programs which are beyond the capacity of our economy to carry and still make progress toward a higher standard of living. The tax burden would then be so heavy that it would crush the spirit of enterprise.

World social-security systems. The clamor for more social security has not been confined to the United States. In fact, the United States is still

far behind many other nations in the scope of its coverage. All over the world people have been turning to government to protect them from the hazards of everyday life. An examination of trends in other nations will be useful in formulating opinions in regard to the proper scope of our own program.

The expansion of social-security systems has been rapid in the years following the Second World War. Let us examine briefly the provisions adopted in a few other nations.

GREAT BRITAIN. The British have provided a "cradle-to-the-grave" program. When a baby is born, the mother gets $16. If she has to give up a job, the mother also receives $7.20 a week for 13 weeks. The government also pays $1 per week for each child after the first until the child is 15 years old. Everybody in Britain receives free medical and dental care. An unemployed worker receives cash aid for 26 weeks, and a cash benefit up to a year if sick. Retirement pay of $5.20 a week starts for men at the age of 65 and for women at 60. The dependents of a worker receive an $80 funeral grant when he dies. In addition, they are paid pensions.

The cost of the British social-security system is enormous. The outlay has reached $3.5 billion a year, or more than 25 per cent of all government expenditures, and is still rising. Workers, employers, and the government all contribute to the cost, with more than half coming from the general tax funds. Everybody in Britain from 16 to 65 years old pays a weekly social-security premium ranging from 45 cents to $1.25. The average worker pays about $1, and employers add an average of about 85 cents to each employee's contribution. The tax on individuals is collected on payrolls except in the case of the self-employed, who have a stamp plan.

FRANCE. The French social-security system provides pensions for workers starting at 60. There also are pensions for invalids, widows, and orphans. French mothers get complete medical care. The government allows a cash bonus when the first child is born, and increasing amounts are paid for each additional child. Workers contribute up to $64 a year. This does not provide for unemployment benefits, which are paid out of general treasury funds.

GERMANY. A social-security system providing sickness aid, accident insurance, and unemployment pay was revived by occupation authorities in all zones. Pensions begin at 65 years of age, and the minimum allow-

ance has been $46.80 a month in the United States zone. The contribution of workers to the social-security program ranges upward to $106 a year. Employers contribute 10 per cent of payrolls on the average.

RUSSIA. Pensions for men begin at 60, and for women at 55. There are pensions for invalids, widows, and orphans. The state provides state medical care, funeral payments, disability pay, cash allowances for children, and bonuses for babies. Workers are taxed an average of 6.5 per cent of wages. Both rates and benefits, however, vary from industry to industry. No provision exists for unemployment insurance.

ARGENTINA. Workers pay 8 per cent of earnings and employers contribute 11 per cent of payrolls. Proceeds of a 1 per cent retail sales tax supplement the social-security fund. The program includes maternity care, disability pay, and pensions for the aged, invalids, and widows.

URUGUAY. This country has provided one of the most complete social-security systems in the western hemisphere. Workers can retire at 50 on pensions ranging up to about $2,000 a year. Medical care and hospitalization are free to the poor. Workers pay 5 to 8 per cent of their wages in social-security taxes. Employers contribute 8 to 12 per cent of payrolls.

OTHER NATIONS. Broad social-security programs can be found in many other nations. Belgium's system calls for a 23.5 per cent tax on payrolls. New Zealand's coverage has long been regarded as one of the most comprehensive in the world. Sweden has increased old-age pensions and introduced a compulsory health-insurance program. Italy, the Netherlands, Switzerland, Mexico, Australia, and Canada are other nations with broad provisions for protecting the individual against many economic hazards.

Certain trends have become evident in recent social-security legislation abroad. There has been a tendency to sever the connection between the payment of benefits and the need for these benefits. Every individual is eligible in many countries regardless of his financial circumstances. Another development, already indicated, is the tendency to make benefits more liberal. The scale of benefits in some countries appears to have reached dangerous proportions. The demand for more social security in the United States indicates that this country also may be faced with the same problem. Still another trend abroad is the appearance of regulations limiting the right of employers to discharge workers, except with the employee's consent or with the approval of a government bureau.

In some cases, termination of employment is possible only upon payment of large indemnities. Such regulations have an adverse effect on productivity, in so far as they prevent the discharge of inefficient workers, or delay the retirement of incapacitated or elderly employees.

The social-security system of the United States will be described in detail later in the chapter, but it should be said here that the American program is less extensive and relatively much less expensive than that of many other nations. In contrast to the much larger payments made in other countries, American workers have been contributing up to $45 a year, and employers up to $135 per worker a year. Recent proposals for broadening coverage and expanding benefits would require contributions up to $264 a year by workers, with employers matching the increased payments of their employees.

Advocates of more social security often call attention to the relatively smaller outlays made by the United States. However, one is tempted to ask: Is that bad? A dynamic and growing nation such as ours may not need such an expanded program as would be required in a more mature economy. We shall weigh this question as we progress in this chapter.

The problem of social security in the United States. The sheer magnitude of a social-security system adequate for a nation of 150 million persons creates a multitude of baffling problems. Let us tabulate some of them.

1. How broad should the coverage of our Federal social-security program be? Should everyone be included or only those where conditions of employment facilitate the collection of payroll taxes and the building up of work records?

2. What kinds of aid should our social-security program provide? Should we confine our coverage to old-age pensions, unemployment compensation, and the few other benefits included in our present system? Or should our program be expanded to new forms of aid, such as health and disability insurance, as President Truman has urged?

3. How large should benefits be?

4. How large a percentage of our national income do we wish to devote to social security? For example, we would be devoting almost 10 per cent of our national income to social security if all proposed benefits were provided. If our prosperity and income declined, the percentage would be even larger.

5. Should our program be expanded now, or should we wait until our tax burden is lighter?

6. Can we rely more on private agencies instead of increasing the scope of Federal assistance?

This array of problems is obviously of the greatest importance to our economy. Humanitarian considerations call for a program broad enough to provide adequately for all who must have assistance. There is, however, a limit to what our economy can stand in view of all the other financial obligations our government has assumed. We must reach a suitable compromise.

The instability of the world's economy in recent decades has increased the difficulty of finding solutions for these problems. Vivid memories of past depressions, and fear of future ones, have helped generate pressure for collective action in behalf of the individual. The general level of prosperity rises during booms and ebbs during depressions. Those few with stable positions may experience no undue hardship during a depression. In fact, their real incomes may rise, because lower prices more than offset declines in dollar incomes from wages, salaries, or property incomes. However, those who experience unemployment may undergo much privation. The problem of human suffering during a depression was dramatized for Americans when about 13 million of our workers were unemployed at the trough of the great depression of the 1930's.

The business cycle, however, is not entirely to blame for economic privation. Other reasons may make the personal resources of individuals inadequate to cope with the economic problems they encounter. Accident or old age may prevent a worker from performing accustomed duties. Sometimes a change in the technology of a particular industry will eliminate the employment upon which he has depended for many years. The depletion of natural resources in a particular area may result in "stranded" populations whose resources are inadequate for moving to areas where economic prospects are more promising. Lower prices for agricultural products may make the earning of a livelihood impossible in poorer farming areas. There are many such reasons why it has become accepted practice for an advanced society sometimes to extend a helping hand to its more unfortunate members.

Various agencies, both public and private, have been mobilized to cope with the problem of personal hardship. The Federal program usually receives most attention, but the role of the private sector of our

economy must not be overlooked. A large number of private companies have done much to provide for their own workers through pension systems, guaranteed employment programs, and help for those incapacitated by sickness or accident. Some employers have tried to help workers get more of a stake in our economy by aiding them to acquire stock in the companies where they work. Very little will be said in this chapter about community and private charities. However, they bulk large, and their efforts have been important in relieving human suffering.

Provision for economic hazards by individuals. We must be cautious in our study of social security not to give the impression that everyone must depend upon help from government or from an employer to meet economic hazards. Many millions of persons have provided for themselves through savings or insurance programs. The nearly $160 billion of life insurance in force in the United States indicates that millions of men and women have acted to provide for their dependents. Savings accounts, various private disability programs, and retirement income policies held by individuals in private companies indicate that not all feel they must turn to government for aid.

Because the addition of health insurance to the social-security program has been suggested, it is interesting to note the remarkable growth in volume and extent of voluntary health insurance during the past decade. There were recently about 18,700,000 persons protected by insurance companies and fraternal societies against loss of income due to temporary disability resulting from sickness or accident. About 19,000,000 have insurance against hospital expense, 14,000,000 against surgical expense, and 1,800,000 against medical expense. These figures are only for coverage provided by private insurance companies and fraternal societies, and do not include many millions protected by employee plans, mutual benefit associations, union plans, and other systems of voluntary coverage.

The United States has an excellent private insurance system which can provide coverage for almost any type of hazard. It is possible to secure coverage in small amounts, or to arrange payments on a weekly basis to reduce the burden for those having low incomes. Despite the excellent facilities available for the individual who wishes to provide for his own needs, the demand for an extension of Federal social security has gained momentum.

The American Social-security System

Summary of our program. A major step toward meeting the problem of personal hardship in the American economy was taken when the Social Security Act was passed in 1935. This legislation set up on a nation-wide basis a system for providing assistance to the aged, and others whose resources are inadequate to cope with the economic problems they may encounter. We shall examine the American system in some detail.

The program is divided into three main areas: (1) public assistance to those who require it; (2) old-age and survivors' insurance to provide an income for persons who have reached the retirement age, as well as their survivors; (3) a program of unemployment insurance operated through the states in connection with the Federal government. General supervision is exercised by the Social Security Administration, one of the four major branches of the Federal Security Agency under the Federal Security Administrator. The administration of the Social Security program requires the performance of the following functions:

1. Approval of state plans for old-age assistance, aid to dependent children, and aid to the blind. The Social Security Administration reviews the various state plans for carrying out provisions of the aid program. The state plans are either accepted or rejected on the basis of their compliance with Federal legislation.

2. Approval of payment by the Treasury of Federal old-age and survivors' benefits, and lump sum payments to individuals.

3. Approval or rejection of state unemployment compensation laws as being in accord with Federal legislation. Grants are certified to the states for administration of unemployment compensation.

The public assistance program. Under our social-security setup, grants are made by the Federal government to the states for old-age assistance. Payments to old people under the program are made on the basis of need. They are not the same as the Federal old-age insurance payments, which are related in amount to the number of years of work in insured occupations. The Federal government supplies one-half of the total amount paid under approved state plans, but limits its contribution to $20. Thus the states are restricted to payments of $40 a month for each individual. If a state wishes to pay more, the excess must come from the

state treasury. An allowance is made for expenses equal to 5 per cent of the Federal assistance. Thus the maximum Federal subsidy under this old-age assistance program would be one-half of $40, or $20, plus 5 per cent of $20, or $1, a total of $21 per person. A residence requirement exists in most states.

Other grants made to states by the Federal government under the public assistance program include the following: (1) aid to dependent children; (2) payments for maternal and child care; (3) public health work, special consideration being given to rural areas and other areas suffering from economic distress; (4) aid to the needy blind.

Old-age and survivors' insurance. The Social Security Act established a program for the payment of pensions to retired workers in insured occupations, and to their dependents. Upon reaching the age of 65 years, the worker is eligible for retirement under the social-security program, and his life pension begins at that time.

Three elements determine the amount of the payments. The total obtained through applying each of them to his work record constitutes the monthly income an individual receives. The elements are:

1. Forty per cent of the first $50 or less of average monthly earnings. Therefore, a person who has received at least $50 in average monthly earnings gets a monthly income for this element of $20.

2. Ten per cent of the remainder of the average monthly earnings which are counted in computing benefits. The maximum counted earnings are $3,000 a year, or $250 a month. If a person had received the maximum amount of monthly earnings, he would get a monthly pension under this second element of 10 per cent of $200, or $20 a month, in addition to 40 per cent of the first $50 of average monthly earnings.

3. Length of service. This portion of the pension is obtained by adding the allowances made under the first two elements, taking 1 per cent of this sum, and multiplying the 1 per cent by the number of years of employment in occupations covered by the social-security program.

As an example of how this third provision works, let us take the case of a person who had been employed in an insured occupation for 30 years. He had earned an average of $250 a month. As already pointed out, he would have a monthly income of $20 based on the first element and $20 based on the second, a total of $40. One per cent of $40 is 40 cents. The 40 cents is multiplied by 30, the number of years of service. Thus he would get an additional monthly income of $12 under

this third element. His total monthly income would therefore be $52. This is regarded as his primary or basic benefit.

In addition to the basic benefit, allowances are made for the dependents the insured worker may have. These are as follows:

Wife's benefit. A wife's benefit is equal to one-half her husband's benefit, less any benefit she may be receiving in her own right under the social-security program. A wife's benefit is receivable until her husband dies.

Child's benefit. A payment equal to one-half a parent's benefit is paid for each dependent child, unmarried and less than 18 years old.

Widow's benefit. The widow of an insured worker is entitled to receive a benefit equal to three-fourths of her husband's benefit.

The old-age and survivors' program is set up on insurance principles, and provides a life income for insured workers, the amount being based on the earnings and length of service of the individual worker. The minimum amount that can be paid is $10 a month; the maximum is $85. Certain kinds of workers are not covered by the program. Those specifically excluded are domestic servants, farm workers, casual workers, government employees, employees of educational and philanthropic institutions, and seamen in United States waters.

How is the retirement program financed? Anyone employed in an insured occupation knows the answer, at least in part, because he has noted that certain deductions were made from his pay check for social security. The law provides that covered employees pay a tax of 1½ per cent on the first $3,000 of their annual earnings, to be deducted by the employer. In addition, employers must match the contributions of employees by paying a tax equal to 1½ per cent of their payrolls. The law at first provided that these taxes should be increased over a span of years to 3 per cent on employers and 3 per cent on employees, but Congress postponed these increases several times.

The fact that not all occupations are covered by the annuity program means that certain individuals are not eligible to receive pensions. Such persons are provided for under the public assistance program. As the student will recall, the Federal government helps the states to finance the making of payments to aged and handicapped persons who need assistance. Persons eligible to receive such pensions include, in addition to uncovered workers, those insured workers whose pensions are inadequate.

Unemployment insurance. In dealing with unemployment insurance, the Social Security Act has three main provisions: state aid, a tax on employers, and Federal supervision of unemployment reserve funds. The Federal tax levied on employers provides the funds for financing state unemployment compensation programs. All states have provided for unemployment insurance under the Federal program.

The Federal law imposes a tax on payrolls of 3 per cent in cases where eight or more workers are employed during at least 20 weeks of each year. In cases where employers have contributed to state unemployment funds, their payments are deductible from the Federal tax up to 90 per cent of the contribution to the state fund. Thus unemployment insurance is set up and conducted by the states, but state programs conform to standards established under Federal legislation. Each state, however, determines the amount of unemployment compensation and the number of weeks that benefits will be paid. Such matters as eligibility and waiting time before payments can be made also are left to determination by the states.

The various state plans, as might be expected, are by no means uniform. The maximum period of benefit payments recently varied from 14 to 26 weeks. Minimum weekly benefits vary from $3 to $10, and the maximum benefits range from $15 to $28. While the payments in most states provide an extremely helpful income for persons who must find new employment, neither the amount nor duration of payment is adequate for the prolonged unemployment of major depressions. Moreover, the reserves of the system in every state would become exhausted in a major depression such as occurred in the 1930's.

Appraisal of the United States social-security program. Several criticisms of our present system have been made, and these are the basis of various proposals for broadening our social-security program.

One criticism of the system is that coverage under the old-age provisions is too limited. As we have noted, not all salary and wage workers are insured. Notable exceptions are the self-employed, agricultural workers, domestic servants, and employees of nonprofit organizations. Among the self-employed, farmers, professional workers, and independent businessmen constitute large groups.

Another criticism often made is that not all persons paying taxes under the old-age program, and covered by it, are actually insured. A person must work in a covered occupation for a substantial period before he

can obtain an insured status. Persons who withdraw from covered occupations before attaining an insured status forfeit the taxes they have paid.

A third criticism results from the provision that old-age benefits are paid only to those who retire from consequential employment. The low level of benefits makes retirement impossible for some individuals who otherwise would be entitled to benefits.

A fourth criticism is that the present program does not provide for those persons who are forced to retire before they reach the age of 65. This is true even if the worker has attained an insured status. Retirement may become mandatory before the age of 65 because of accident or illness. It may be necessary because of changing technology. In any case, no provision is made for the worker who loses a position in a covered occupation, and cannot find another position unless he enters an uninsured occupation.

The lack of complete coverage is also one of the criticisms most frequently levied against the unemployment insurance program. Under the Federal law, those not included are (1) persons working for an employer who hires less than eight; (2) agricultural workers; (3) domestic servants; (4) employees of government; and (5) employees of religious, educational, or eleemosynary nonprofit institutions. Others eliminated are those in insured occupations who have not the necessary earnings to qualify. Further, as the student already has seen, unemployment insurance provides coverage for only a relatively few weeks.

The importance of social security in the United States. Some idea of the scope of our present social-security system can be obtained from its cost in a recent year. Almost $3 billion were disbursed in the form of benefits under the three major social-security programs in the year ended June 30, 1948, and more than $150 million were spent in administering these programs. In addition, the sum of $337 million was charged against the general revenues of the United States for interest on obligations held in social-security trust accounts. The aggregate expenditures were distributed about half and half between the Federal and state government.

The old-age and survivors' insurance program provided benefits amounting to $500 million to about 2,162,000 persons in the 1948 fiscal year. Under the public assistance programs, approximately 3,580,000 needy persons—the aged, the blind, and dependent children—were on the public assistance rolls. About 4 million beneficiaries received un-

employment benefits. Allowing for the fact that the same person may have received benefits under different programs, apparently between 8 and 9 million persons were aided.

The adequacy of our social-security program has been widely debated. Some maintain that our program is deficient and must be expanded. President Truman has urged the raising of benefits by 50 per cent, the broadening of coverage to include millions of workers not now insured, and an increase from $3,000 to $4,000 or more in the amount of salary upon which payroll deductions can be made. Others reject the expansion of social security, because it would cost too much and would represent a major step toward socialism. Extreme advocates of social security want provision for the individual by the state from the "cradle to the grave," following the pattern of the English program. The extreme opponents want social security restricted to hardship cases. They point out that the tax on payrolls would rise to 10 or 15 per cent if all projected social insurance plans came into being. They say this would decrease the amount of employment that businessmen would offer.

The proposal made by President Truman to increase benefits by 50 per cent is an example of the costs involved in boosting social-security benefits. Let us consider only the old-age retirement program. As Federal expenditures go, the immediate cost to the Treasury would not be great. The proposed 50 per cent increase would raise the cost only about $250 million a year above the recent rate of $500 million a year, which was being disbursed by the Federal Old Age and Survivors' Insurance Fund. Such increases would be of great help to the million retired workers, drawing about $40 a month for man and wife, and to another million survivors, including widows and other dependents, who average about $14.50 a month. The proposed 50 per cent increase could not for long, however, be held to a total cost of $250 million a year. Approximately 25 million persons are now paying taxes on their wages, and most of them eventually will be entitled to receive social-security benefits. They, too, would be entitled to the 50 per cent increase.

Another fact must be considered in weighing proposed increases in social-security outlays. The proportion of our population 65 years old and over is increasing. Recently, this group numbered about 10,422,000 persons. Its total within 25 years will rise to about 17,646,000 persons. Moreover, most men and women in the 65 year or over group do not now have an insured status under the old-age and survivors' program. As

time passes, the majority of workers reaching this age group will be insured. Benefit outlays will rise sharply. Obviously, future as well as current costs must be weighed in deciding whether we can defend an increase in our scale of benefits.

The need for overhauling our Federal social-security system has been indicated by the studies of the Social Security Advisory Council. The Council was organized in 1948 after the Senate Finance Committee had been directed by Senate resolution "to make a full and complete investigation of old-age and survivors' insurance, and all other aspects of the existing Social Security program, particularly in respect to coverage, benefits, and taxes relating thereto."

The complexity and variety of the issues weighed by the Advisory Council are worth the earnest consideration of any student of our social-security program. Despite its length, a list of the issues considered by the Advisory Council is given below. It serves to illustrate the complicated problems which arise when government assumes responsibility for the economic well-being of its citizens.

What is the proper role of social-insurance and public-assistance programs in a social-security system?

Should a means-test system be substituted for the present insurance system?

Should a pension system paying flat benefits from the general treasury be substituted for social insurance?

Should benefits under social insurance be geared to wages or should they be the same for all?

To what extent should persons under the insurance program "pay their own way"?

Should the Government eventually pay part of the costs of the system out of general taxation?

What should be the relation of old-age and survivors' insurance to other plans for retirement, private or governmental?

If presently excluded groups are brought into the system, how should the eligibility requirements be modified so that the new groups are not unduly handicapped in getting benefits?

Are the present eligibility requirements the best possible ones for the presently covered groups?

How should the benefit provisions be modified to overcome the handicap under which newly covered workers would otherwise find themselves?

Are the types of monthly benefits now provided the correct ones, and should any new beneficiaries be added?

What is the cost of the various possible recommendations, now and in the future?

What should the contribution rate be?

What should the contribution schedule be?

Should the system be financed on a full reserve basis?

What is the meaning of the reserve?

Should the risk of permanent and total disability be added to the Federal system of old-age and survivors' insurance or should loss of income from this cause be handled entirely under public assistance?

If the latter, should a new special State-Federal assistance category be set up?

If the former, how can the protection be provided without undue risk to the solvency of the fund?

Should categories such as old-age assistance, aid to dependent children, and aid to the blind, be retained in the State-Federal assistance program?

Should all income continue to be counted in determining need, or should exemptions be allowed?

Should the Federal Government participate in assistance to aged persons residing in medical institutions?

What is the cost of the present system and of various proposals?

Can and will the costs be reduced by the social-insurance program?

What has been the relation of social insurance and public assistance in the past, and what should it be in the future?

How far should coverage in unemployment insurance be extended?

Should temporary disability payments be incorporated with all unemployment-insurance laws?

What would be the advantage of workers' contributions to unemployment insurance?

What are the advantages and limitations of the present methods of experience rating?

Should the size of benefits vary with the family status, as is done in old-age and survivors' insurance?

How far should the Federal Government go in continuing to supervise administrative expenditures?

Should all funds collected for unemployment insurance be set aside for such purposes only?

"Cradle-to-grave" security. "Cradle-to-grave" protection for the individual against economic vicissitudes has been so widely discussed in

recent years that it deserves explanation here. As we have already mentioned, the term was popularized in connection with the great expansion of the British social-security program. Strong advocates of more social security go almost as far in the coverage they want in the United States. It behooves us to see exactly what such a program might entail.

A "cradle-to-grave" program includes something for everyone at all stages of his life. Maternal benefits and subsidies to large families would be included. At the end of the life span, burial would be provided at the expense of the state. Protection would be given against every hazard between birth and death. Here are some of the benefits that would be included:

For low-income families: food subsidies and low-cost housing; regular medical care.

For aged workers: pensions. In the United States, for example, a minimum of $40 a month, instead of the present average of $25, has been proposed.

For unemployed workers: weekly pay checks.

For sick and disabled workers: weekly pay checks.

For permanently disabled workers: pensions.

For school children: more and better education subsidized by the Federal government; free lunches.

For sick persons: medical care.

Such a program would be expensive and the cost would rise with the passage of time. In the United States, a complete, all-out social-security program of the cradle-to-grave type probably would require payroll taxes of as much as 5 per cent each on employer and employee at first, and eventually as much as 8 or 9 per cent on each.

While we may be some years away from a cradle-to-grave system in the United States, we would have such a program if all recent proposals, or even most of them, were adopted. Protection by government against economic hazard is certain to become more and more of a social, political, and economic issue. President Truman has dramatized this issue with his proposals for health and disability insurance, as well as for broader coverage by the present program. He also has wanted a disability insurance program.

The proposed health insurance has aroused considerable debate in both the public and private sectors of our economy. Under one proposal, health insurance would be financed by a tax of ½ per cent on the first

$4,800 of each individual's income. Government men are divided on whether this should be borne by the employee or divided between employer and employee. Later the tax would be increased to a 3 per cent permanent rate, half to be paid by the employer and half by the employee. This proposal has met with strong opposition from those who feel that compulsory health insurance would be a severe encroachment on the rights of the individual. Many medical men also question the efficiency of a socialized program of medicine.

The trend toward socialized medicine already has gone far in the United States. Outlays for health activities of government increased from about $250 million in 1940 to $1,250,000,000 in 1948. In all, forty-four United States agencies are now engaged in health services. One out of every six Americans has been receiving medical aid from government. Many services are overlapping, and few coordinate their efforts. Apparently our citizens must soon decide whether they wish full socialization of medical services, as in Great Britain, or whether some private control of medical service is to be retained.

Debates on social security. In appraising our social-security program or even in weighing the desirability of a social-security program, it is useful to go back to the discussions in Congress and elsewhere when our proposed program was being debated in 1935. At that time, the following social, psychological, and economic conditions calling for social insurance were outlined:

1. The economic collapse of 1929, and the widespread unemployment and business failures thereafter, crystallized the need for economic security. A nation-wide program of social security, under Federal sponsorship, was seen as a step in that direction.

2. The industrialization of the United States made more and more individuals susceptible to the downswings of the economic cycle, the impact of which is most felt in industrial communities. Periods of unemployment or partial employment not only create immediate financial problems for the individual, but the difficulty of providing for old age also is increased. At the time the social-security program was under discussion, it was estimated that there were 7,500,000 persons 65 years old or over. This number was expected to rise to at least 17,646,000 by 1975. Only a small portion of such persons, it was felt, would be able to provide for themselves.

3. It was argued that provision of unemployment insurance on a large

scale would help arrest the downward spiral in economic activity when such a spiral started. The unemployment insurance funds would provide a reservoir of buying power which would be tapped in an emergency. The complete inadequacy of state and local provisions for the needy was demonstrated during the early stages of the great depression.

4. It was pointed out in 1935, as it has been very many times since, that freedom from want is a desirable national goal. In fact, it has been argued that the future status of free enterprise might depend on how well such a goal is attained. The free-enterprise system must offer freedom from want, it was contended, as well as other personal economic freedoms.

5. The costs of a social-security program were widely debated in 1935 as they are now. These included the direct costs of maintaining the bureaucracy required to collect and disburse the huge sums involved. The withdrawal of purchasing power from individuals who pay social-security taxes was cited as a cost to be borne by our economy while a fund was being accumulated. The retarding effect on employment of payroll taxes was cited as still another major cost item. In the minds of some careful investigators, the greatest cost of all was the paternalism which a big social-security program entails. It encourages individuals to depend more on government and less on themselves in meeting personal economic problems.

Financing the Federal social-security program. The financing of the old-age insurance program is interesting because of the many problems involved in accumulating and preserving a reserve fund of the necessary magnitude. As we have indicated, both the employer and the employee make payments into the fund in equal amounts in the form of a percentage tax on payrolls.

The original plan called for the accumulation of a reserve which, with current wage and payroll taxes, would completely cover the cost of benefits. This reserve was to be built up during the early years of the fund, when receipts would be far in excess of payments. The reserve, to be invested in United States securities, was expected to reach about $49 billion by 1980. Eventually payments to individuals were expected to exceed the receipts of the fund from payroll taxes. This excess of payments was expected to be met by interest on the fund's holdings of government bonds.

The merits of such a vast reserve fund were questioned. Why accumu-

late such a fund if the Treasury must make up the difference between outgo and income? What difference does it make if the Treasury provides the difference directly out of its general funds, or goes through the formality of paying bond interest which is used to make up the deficit? As the benefit payments from the fund grow, the payroll taxes will indeed have to be increased, but most students of social-security problems question the merits of accumulating a large fund and investing it in obligations of the Treasury. The fund now has approached the $14 billion mark and is increasing at the rate of $1 billion a year. It has been urged that a small working fund would be adequate.

Special provision for railroad workers. Employees of steam railroads are covered by the Railroad Retirement Act and the Railroad Unemployment Insurance Act. Although administered by the Federal government, the program is financed entirely by employers and employees. The government makes no financial contribution. Annuities under the Retirement Act are determined by the compensation received before retirement and by length of service. The amount is computed by multiplying an individual's years of service by the following percentages of his monthly compensation: 2 per cent of the first $50; 1½ per cent of the next $100, and 1 per cent of the next $150. The monthly compensation included in the formula is the average compensation paid to an employee in the calendar months included in his years of service. Retirement is at the age of 65 years.

The Railroad Unemployment Insurance Act provides for benefits from $1.75 to $5 for each day of unemployment or sickness, depending on the salary received by the worker. The maximum number of days for which unemployment benefits are paid within a year is 130. The same maximum applies in the case of sickness.

Workmen's compensation. Most modern societies require employers to compensate workers for injuries received in the course of employment. Such compensation usually includes lost wages, medical expense, and specific payments for the loss of limbs, and for other permanent injuries. Provision usually is made, also, for compensation to the victim's family if an injury is fatal. This financial burden is usually placed on the employer, no matter what the cause of the accident, since it has become recognized that injuries may be expected in the normal processes of industrial activity.

The first of our states to establish a system of industrial compensation

was New Jersey, where a system which could withstand assault in the courts was set up in 1909. Such programs are now functioning throughout the nation. Recently, thirty-two of our states provided compensation for certain occupational diseases as well as for accident. Rates of compensation vary considerably, as do the details of providing funds, appraising the amounts of compensation, and determining the scope of coverage.

Economic results of a social-security program. The precise determination of the economic effects of a social-security program are difficult to isolate. Our own system is relatively new and has been in force during a period of tremendous economic change. By careful study of both American and foreign experience, we can make a few generalizations concerning the economic effects of a national program.

Whether a social-security system is beneficial or harmful depends to an important degree on its cost and benefits in relation to the productive powers of the economy. In general, the economic effect is good if reasonable benefits and contributions prevail. Extremely liberal benefits may have a retarding effect on a nation's entire economic life. The ideal social-security system would provide no more than a minimum level of protection. The individual would thus retain an incentive to provide for his own security and protection.

The only source of social-security benefits is the production of the economy. A system of social security will be beneficial if it spurs production by giving workers freedom from concern over privation in old age, sickness, and periods of unemployment. Some investigations would indicate that a sound program has this effect. Other studies find little evidence to confirm this viewpoint. Unless a social-security system does raise productivity, the benefits from a humanitarian standpoint have to be weighed against any adverse economic effects that may be found.

In what ways might a social-security system have a retarding effect on production? It would do so if it provided for retirement at too early an age. Our own system cannot be criticized as much on this score as some other systems which provide pensions at the age of 55 years or even earlier. Premature loss of highly trained personnel is not justified in any economy where standards of living can be raised with advantage.

Social security is a method for redistributing wealth, especially if a large part of the funds come from employers and the government. This may become an important consideration where benefits are large, and

the workers provide a small portion of the total outlay. The effect on the incentives of the aggressive and able members of society must be given consideration. The demand for expanded social-security benefits always will be loud when the principal beneficiaries pay a relatively small portion of the total cost. In a democracy, the masses can exert enough political pressure to get what they want. As the scope of benefits broadens, the masses will have less incentive to provide for themselves in old age and economic adversity. It is much easier to turn to government.

Social security can easily become a political football. Pleas for more benefits are good vote getters. They identify the politician as a great humanitarian. Opposition to an expansion of social security is political poison. Those who vote against it can be charged with putting the dollar above the well-being of people.

The impact of a broad social-security program on employment must be considered. A high tax on payrolls increases the costs and hazards of business. As we have seen, payroll taxes in some countries range upward to 10, 12, 20 per cent, or even higher. Such taxes certainly make an employer more hesitant to expand his labor force than he otherwise would be. He has very much of an incentive to substitute machines for people.

In summary, the social-security system must keep in step with the economy. If it expands faster than the productivity of the economy, it will have a retarding effect. It can have beneficial economic effects, however, if it aims to cover merely minimum needs, and leaves the worker with ample incentive to provide for himself.

The question of unemployment benefits, a part of a social-security system, needs separate comment. Unemployment compensation provides the individual workers with financial resources during temporary periods of unemployment. It is presumed that he will regard his compensation as a stopgap form of income to be replaced by a regular pay check as quickly as possible. Rates of unemployment compensation must, therefore, be kept low in relation to wage rates. The incentive to find a job must not be impaired.

The argument often is advanced that unemployment compensation establishes a cushion of purchasing power which bolsters demand during a business recession. This is true to a degree, although the cushioning effect can be felt only temporarily. The period for payment of unem-

ployment compensation must of necessity be limited to a relatively few weeks. It is hoped that the worker will be able to find employment during the payment period. If he does not, he must rely on his own resources. During a major business depression, the compensation period may be completed long before employment can be found.

The inadequacy of unemployment compensation to cope with a major depression does not mean that this aspect of social security should be disregarded. It merely means that we should not be lulled into a false sense of security by the existence of unemployment compensation programs in each of our states. During a minor recession, such funds will help to prevent personal hardship and will also prevent a decline in purchasing power as great as would occur in the absence of such a reservoir. In a major depression, such funds merely postpone economic adjustments which sooner or later must occur.

Private Provision for Economic Security

Welfare plans in private industry. A large number of private business concerns make provisions of some sort for employees who reach retirement age or who have met with problems beyond the scope of their own financial resources. The rise in the importance of private welfare plans was indicated by a recent government survey, which indicated that 47 per cent of 15,636 firms studied in eleven industries have some sort of protection for workers which is in addition to government social security. Life insurance was the most popular, with more than one-third of the firms having insurance programs. Pension and retirement plans, currently much in demand by unions, were provided by about 5 per cent of the companies.

Recent surveys have indicated that many new employee insurance and welfare programs are being installed by employers. Some of these plans are being established by employers without bargaining with unions in regard to terms or conditions. Most of the new plans are being financed by the employer, although employees are often asked to pay a portion of the cost. It has been pointed out that adequate plans often reduce labor turnover and improve employee morale.

An example of a typical plan is the program initiated Feb. 1, 1948, by the American Brake Shoe Company. The plan covers approximately 50

per cent of the company's 9,000 employees, all of whom enrolled voluntarily when it was adopted. It provides lump sum payments in the event of accidental death or dismemberment, weekly benefits for accident or sickness, plus hospital, surgical, and maternity benefits. These last four items are extended to dependents of employees.

The annual wage. Some aspects of annual-wage plans have already been discussed briefly in the preceding chapter. As a means of minimizing the hardships which economic fluctuations create for employees, proposals for an annual wage in industry often are made. Most salaried workers are already on an annual wage, or what amounts to the same thing, but industrial employees often are paid by the hour, day, or week, and are subject to layoffs of varying duration. Such layoffs may be due to business depression, or to such relatively temporary conditions as seasonal fluctuations in sales, or to change-over from one model of a product to another. The annual wage is becoming an issue in American industry, and requests for an annual-wage guarantee have come from workers in such industries as automobiles and steel, where the amount of employment offered varies considerably over the course of the business cycle.

The term "annual wage" has been loosely used to cover a wide variety of methods for regularizing the employee's income. Strictly speaking, a "guaranteed annual wage" would mean a guarantee of year-round employment at a specified rate with regular pay checks. This would assure the worker a stated minimum of annual income. It would imply a claim of the employee to a regular pay check whether or not the value of production covered the employment or wage guarantee. Such unequivocal commitments are exceptions in American industry. They have been made by a comparative handful of firms, mainly in distributive lines, and cover the skeleton force of needed employees. Most annual-wage plans now in existence guarantee only a minimum amount of employment.

Firms operating under annual wage plans have, as a rule, dealt in consumers'-goods lines. Such firms have a relatively consistent demand for their products over the business cycle. Moreover, seasonal fluctuations in sales usually can be predicted. This advantage goes far toward making possible the annual wage programs of Hormel in meat packing, Nunn-Bush in shoes, and Procter and Gamble in soaps and fats. The

three companies just named have programs which are well known. The relative stability of their industries is indicated by the following table:

Table 40. Production of Meat, Shoes, and Soap

(1935–1939 = 100)

Year	*Meat packing*	*Shoes*	*Soap*
1935	86	95	92
1936	105	102	100
1937	94	102	100
1938	103	96	103
1939	112	105	110
1940	125	100	105

Although fluctuations occurred in these three fields, the table indicates that changes in output were relatively mild. They were not as violent as those in steel and automobiles, where, as mentioned, proposals for an annual wage have been made. This is indicated in the following table, also based on 1935 to 1939:

Table 41. Production in Iron and Steel, Meat Packing, Shoes and Autos, 1929–1940

(1935–1939 = 100)

Year	*Iron and steel*	*Meat packing*	*Shoes*	*Autos*
1929	133	115	89	139
1932	32	108	77	36
1940	147	125	100	118

Obviously, a company making automobiles or iron and steel products would have much more difficulty in guaranteeing wages on an annual basis than would a soap company or even a meat packer.

The question of the annual wage, although for many years under dis-

cussion, was given new prominence by the Steel Workers' Union in 1944. At the time the union included it in a request to the National Labor Board for wage adjustments. Since that time, the intention of pressing for an annual wage has been indicated by labor leaders in oil, rubber, automobiles, the maritime industries, meat packing, and many other fields. It is significant that steel should have come forward as a candidate for the annual wage, since this carries the issue into the durable-goods field, where employment has been subject to wide cyclical fluctuations.

The success of any annual-wage plan obviously depends in large part on stabilized production. Stabilized production can be hampered by strikes and work stoppages, by seasonal fluctuations in consumer demand, by shortages of materials, and by over-all economic fluctuations. Labor has argued that stable employment in itself will go far toward the promotion of stable demand and stable production.

The record of annual-wage plans has not been impressive. A survey by the National Industrial Conference Board showed that of sixty-one plans once in existence, thirty-two were discontinued for various reasons. Many employers have found it possible to overcome seasonal troubles in connection with an annual-wage program, but they are baffled by mass unemployment due to over-all cyclical swings. Of those plans which have survived, most provide only limited coverage. Employment for a minimum number of weeks, usually for less than a year, is guaranteed, and only a portion of the workers are covered. Most companies do not guarantee employment at a particular job. Rather, they reserve the right to shift workers from task to task if this becomes necessary.

In appraising the possibilities of annual-wage plans, it is difficult to be optimistic. So far as they go, they usually incur obligations to a limited number of workers, based on seniority or other requirements which not all employees can fulfill. In order to meet even minimum guarantees, there is a strong possibility that, in a period of recession, a company with an annual-wage plan may be forced to cut other expenditures far more drastically than would have been necessary if no such obligation existed. It is even possible that the ups and downs of economic activity in our economy might be intensified by the rigidities imposed by annual-wage plans if they became widespread in American industry. This possibility has not been fully explored, nor has the conflicting contention of labor that demand and production would be stabilized by annual-wage plans.

Conclusions

In this chapter we have considered the various solutions offered by government and private industry to meet the problem of personal hardship in our economy. We have seen that the Federal social-security program sets up a system of annuities for the aged, and of assistance for those who cannot qualify for such annuities or who are not eligible for adequate benefits. The Federal program also provides for unemployment insurance administered by the states. The costs of an extended program must be considered. For example, the maximum contribution required from any person so far has been $45 a year. If all recent proposals were adopted, the maximum cost could rise to $264. It was seen that numerous private companies have established welfare plans which supplement the Federal program. The question of the annual wage, advocated as a means of assuring stability of workers' incomes, also was discussed. It was indicated that no great measure of success has so far been attained in connection with the annual wage, and that we cannot be sure whether it would modify or intensify the fluctuations in incomes and employment which characterize the business cycle.

Our discussion has indicated that a vast area of disagreement arises when social-security issues are debated. Can we formulate any principles that will help us to appraise more intelligently the many proposals offered in recent years for expansion of the American social-security program? We can, indeed, develop a very useful set of principles. They must of necessity be broad, and they will impose burdens for some individuals. Some persons will be taxed to pay for benefits they do not need or would much prefer to provide for themselves. Others will find the level of benefits inadequate to meet their particular requirements. No public program can be tailor made. To aid in formulating our principles, we will suggest answers to the questions raised earlier in this chapter.

1. How broad should the coverage of our Federal social-security program be? Everyone should be eligible to receive the benefits which social security provides, especially if the program is financed from the general revenues.

2. What kinds of aid should our social-security program provide? It generally is agreed that old-age retirement and unemployment compensation should be provided. The merits of extending a social-security

program to include other types of benefits is debatable. There appears far less need for a "cradle-to-grave" program in the United States than in most other countries, where workers earn a bare subsistence.

3. How large should benefits be? The answer here seems quite clear. The role of social security is to provide a basic layer of protection against certain economic hazards. The benefits should remain small enough that the individual retains a strong incentive to make additional provision for himself.

4. How large a percentage of our national income do we wish to devote to social security? The percentage must be a happy compromise. It must (1) be sufficient to prevent extreme hardship for the aged and handicapped, and (2) not be so great that the tax burden on producers will impair incentives. Social-security benefits could become so large that the burden would be unbearable for the younger, productive members of society. If this happens, the only possible result would be a falling standard of living. Heavy taxes on employers to finance social security would reduce employment. The temptation to eliminate workers might become very great in even a mild business downturn if the employer not only saved the wages of his dismissed workers but also the percentage of their pay he was taxed for unemployment insurance. This would mean more economic instability instead of greater stability.

Review Questions

1. What are some of the reasons that the individual may be unable to cope with the economic problems he encounters? Tabulate the different types of economic problems that he encounters. Classify these problems into long- and short-term.
2. What are the three main areas covered by our social-security program?
3. What Federal agency administers the social-security program, and who appoints the members of this agency?
4. What are the official duties of this agency?
5. Describe the public-assistance program set-up under the social-security program.
6. How are payments under the public assistance program financed?

7. Describe the payment of benefits under the Old Age and Survivors' Insurance provisions of the social-security program. Who is eligible to receive payments? How is the amount of a payment computed? How is the old-age annuity program financed?

8. Describe the provisions in the social-security program for unemployment insurance. How is the unemployment-insurance program financed?

9. What changes are recommended for our present social-security program?

10. What provisions are sometimes made in private welfare plans? Describe the plan of the American Brake Shoe Company.

11. What is the objective of an annual-wage plan? What are some of the problems faced by companies which are considering annual-wage plans?

12. Compare the relative difficulty of establishing annual-wage plans in consumers'-goods industries and in heavy industries such as iron and steel.

13. What seems to be a necessary requisite for the success of an annual-wage plan?

14. What has been the record of annual-wage plans in American industry?

Problems

1. Outline the arguments for and against expansion of our present social-security program.

2. Outline the arguments for and against a compulsory health-insurance program.

3. Study the employee-welfare plan of a particular company. Tabulate its provisions. What advantage does it hold for the company? What is its cost to the company? Has it been successful in building employee morale?

4. Study the unemployment compensation provisions in your state. How much are monthly benefits? Who is eligible? How long will payments be made to an individual in case of unemployment?

5. Study the annual-wage plan for a particular company. What financial obligations has the company incurred? Who among employees is eligible? Exactly what does the company guarantee?

6. Study the indexes of production for these industries: paper, textiles, clothing, construction, coal mining, nonferrous-metals mining, manufacturing

of machinery, and food processing. In which of these fields would annual wage plans be most likely to succeed? In which would they be least likely to succeed? Why? Consider both seasonal and cyclical fluctuations.

7. It often is said that an ideal social-security program for the United States would assure a minimum income to all Americans in all contingencies of life. This implies that the government should undertake the responsibility of underwriting a minimum standard of living for everyone. Do you agree or disagree? Defend your answer. Would you impose any obligations on the individual before he could qualify for a guarantee of a minimum income? How would you define a "minimum" income?

8. Some difference of opinion exists whether a reserve fund should be built up to help finance old-age benefits, or whether the Federal Treasury should make up the difference each year between social-security tax collections and pension requirements. Under a reserve plan, the present excess of tax collections over payments would be invested in government bonds. Later the interest on the bonds would be used when pension payments exceeded tax collections. Is the idea of a reserve, invested in government bonds, sound for a social-security system? Does a reserve of this kind have the same significance as it would for a private insurance company which sells retirement-income policies?

9. It often is argued that unemployment insurance increases the stability of our economy by providing a reservoir of purchasing power in an emergency. Can a case be made for exactly the opposite point of view?

Suggested Readings

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PART SIX

Problems of Economic Organization

Our success in achieving economic stability and in making economic progress depends to a great extent upon the effectiveness with which our economy is organized. Problems of organization arise in individual enterprises, in whole industries, and in broad areas of the economy. In addition, problems arise in connection with the functioning of the economy as a whole. Problems of this latter type raise questions of whether the government should engage in over-all planning, and of the form which such planning should take.

Part six deals first with certain problems which affect a wide area of our economy, namely, the problems which arise in connection with the marketing of goods and services. Second, it deals with the problems which grow out of the organization and functioning of an important industry, namely, agriculture. Third, it deals with the problems which arise in connection with any attempt, by planning, to organize more effectively our entire economic system.

18. The Problem of Marketing Costs

The meaning of marketing. Marketing includes all those activities which are necessary if goods are to be transferred from the mine, farm, or factory to the ultimate purchaser. It covers transportation, storage, grading, financing, selling, buying, and whatever else may be involved in putting a good in the right place, at the right time, and in the right ownership.

Marketing is one phase of production, if we use the term "production" in its strict economic sense. It will be recalled by the student of principles of economics that production means the creation of utility. It includes, therefore, all activities that contribute to the satisfaction of human wants. Since transportation, storage, and merchandising are all necessary if consumer wants are to be adequately satisfied, such activities are just as truly productive as are mining, farming, and manufacturing.

Unfortunately, common usage does not always correspond to economic usage. In the newspapers and financial journals "production" usually refers only to mining, farming, or manufacturing; and the process by which goods are transferred to the ultimate purchaser is frequently called distribution rather than marketing. However, since economists usually employ the term "distribution" in another sense, namely, to refer to the division of wealth and income, in order to avoid confusion it is preferable to use the term marketing rather than distribution when referring to the processes involved in transporting and selling goods. If for convenience we sometimes depart from this usage, it will be only in cases where the context makes our meaning perfectly clear.

The rising trend of marketing costs. As our economy has become more complex, marketing or distribution costs have become an ever greater

part of the total costs of providing consumers with goods and services. Today it is not uncommon for marketing costs to represent 50, 60, or even 75 per cent of the total price which the consumer pays for a commodity. This rise in marketing costs has disturbed many students of our economy.

The rise in marketing costs has been accompanied by a rise in the proportion of workers engaged in marketing activities. The Twentieth Century Fund states that, while in 1870 only about one-quarter of the working force was engaged in marketing and service occupations, about one-half was so engaged in 1930. Population trebled and production increased ninefold during this period. However, while employment in manufacturing increased only as rapidly as population, employment in marketing occupations increased as rapidly as output. Thus, while more goods were being produced with a smaller total amount of labor per unit of output, there was little or no reduction in the labor required for marketing.[1] One writer believes that we have reached something of an impasse between mass production and individual consumption. As he puts it, productive gains "saved at the spigot are blindly or improvidently wasted at the bunghole." [2]

Why have marketing costs increased while other production costs have fallen? If increasing costs are due to waste, monopoly, discrimination, or similar unnecessary and undesirable factors, the very foundations of our economy may be threatened unless these factors are eliminated.

The nature of our problem. An economic system can serve the public welfare only if it operates with reasonable efficiency. One of the best tests of the efficiency of an economy is the cost of producing goods and services. If costs of production can be reduced, and if the savings thus effected are passed on to the consumer in lower prices, standards of living can be raised and the general welfare promoted.

It is the purpose of this chapter to examine the problem of marketing or distribution costs. By limiting the study to marketing costs we do not mean to imply that other costs of production have reached the lowest possible level. On the contrary, the possibilities of increasing the efficiency of mining, farming, and manufacturing are very great. We restrict

[1] "Does Distribution Cost Too Much?" The Twentieth Century Fund, New York, 1939, p. 13.

[2] NOURSE, EDWIN G., "Price Making in a Democracy," Brookings Institution, Washington, D.C., 1944, p. 24.

our study to marketing costs, partly because of space limitations, and partly because of the common, though quite possibly false, assumption that marketing costs represent a greater amount of waste than do other costs of production.

We have noted that marketing costs have risen relative to the costs of manufacturing or processing. Our problem is, Does marketing cost too much, and if so, what can be done to reduce this cost? Any reduction in marketing costs will make more goods available to our people, and will thus promote the general welfare.

Reasons for the Relative Rise in Marketing Costs

There are a number of basic factors which account for the steady rise in the ratio of marketing costs to other costs of production. Important among these factors are the following developments:

1. A far greater proportion of the total output of goods passes through the market than in earlier times.
2. A larger proportion of the goods in the market consists of style goods and perishable goods.
3. The general "pattern" of marketing has changed in important respects.
4. There has been an increase in cost-raising types of competition.
5. There has been a tendency to restrict competition and to enter into monopolistic arrangements which increase distributors' margins.

The increase in the proportion of goods which go to the market. In a primitive economy in which each individual or family was wholly self-sufficient there would be no need for trade. Each family would consume its own products and produce goods solely for its own use. Since nothing would be marketed, there would be no marketing costs.

As soon, however, as people begin to specialize in the making of certain products, they face the problem of selling these products to others, and of buying in the market the goods and services which they must have to satisfy their own needs. Specialization results in trade, and trade creates marketing costs, because the exchange of goods requires time and labor.

In colonial America marketing costs were relatively unimportant. The typical American was a farmer, and often a frontiersman. He built his own house, perhaps with the aid of his neighbors. He produced most

of his own food, clothing, and furniture; and hence no marketing costs arose in connection with these items. Even when the colonial worker produced goods for sale, the time and labor involved in selling them were often very small, so that marketing costs were negligible. For example, the local shoemaker commonly sold shoes on order to regular customers among his own neighbors.

With the passage of time, however, the average worker has produced less and less for his own use, and more and more for the market. Today almost everything which is produced passes through the market and is subject to marketing costs. Even farmers sell most of their output, and then buy processed foods in the market. Most people stopped spinning and weaving their own cloth more than a century ago. However, only a generation or two ago clothing and bread were still made at home. Today nearly all clothing is bought ready made, and there are few housewives who ever bake a loaf of bread. Instead they buy bread at the grocery store or the bakery.

It is clear that this constant rise in the proportion of goods which must pass through the market has been a major factor in accounting for the long-run rise in marketing costs relative to other costs of production.

The increase in style goods and perishable goods. Factors like higher standards of living, rapid communication, the movies, and national advertising have brought an increasing demand for goods which represent the latest in style. This is especially evident in the field of women's clothing, but it is also true in other fields. This year's model of automobile will sell for a lower price next year even though it has never been driven, because in the space of a single year it will already be somewhat outmoded.

There has also been a great increase in the proportion of perishable goods which pass through the market, especially such commodities as eggs, milk, fruit, and vegetables. Higher incomes have created a much greater demand for these commodities, and improvements in transportation and refrigeration have made it possible to distribute them in great quantities and over long distances.

Style goods and perishable goods are both costly to market because they bring heavy risks and frequent losses to those who deal in them. Style goods bring losses because they must be bought in anticipation of a demand which may not materialize, and which at best is tempo-

rary. Perishable goods bring almost constant losses as a result of spoilage. Losses on both style goods and perishable goods must, of course, be counted as a cost of doing business.

Changes in the pattern of marketing. Many changes have occurred in recent years in marketing methods and in the nature and organization of markets. Some of these changes have clearly tended to raise marketing costs. With the growth of population and improvements in transportation, markets have become larger and more complex. Distances covered are greater, more people are served, more goods are distributed in large cities, and the problems of storage and handling have in many cases become much more difficult.

However, one should not call attention to cost-raising changes in the nature and organization of marketing without noting that there have been other changes which have tended to reduce costs. For example, better storage and refrigeration facilities are available than was the case in former times, and some transportation costs are lower. The size and efficiency of the average marketing enterprise have increased, and improved marketing methods have been developed. Better credit facilities are also available, and in some fields of merchandising there has been an increase in the average volume of sales per worker.

The increase in cost-raising types of competition. A very significant factor behind the increase in marketing costs relative to other production costs is a great increase in the use of competitive methods which involve heavy expense. Among the more important of such methods are attractive but costly packaging, emphasis on style, large-scale programs of national advertising, emphasis on personal salesmanship, and the provision of various free services for customers.

Cost-raising methods of competition are most likely to be resorted to in markets which depart widely from conditions of perfect competition. Where competition is relatively perfect, or pure, as in the wheat market, an equilibrium price tends to be established at which any producer can sell his entire output if he so desires. In order to make sales it is not necessary for him to put his product up in attractive packages, or carry on an advertising campaign, or offer prospective buyers special inducements in the form of free services. However, in markets where competition is very imperfect the situation is entirely different.

Under the type of imperfect competition known as "oligopoly," a product is produced and offered for sale by only a few firms, perhaps

three or four, perhaps a dozen. In this type of situation each firm usually sets the price at which it will sell, but it does so with an eye on each of the other firms. Often by tacit agreement one firm is allowed to take the lead in setting a price, after which all the others change their own prices so as to conform.

Frequently a price set in this way is too high to "clear the market," that is to say, the industry cannot sell all that it can produce. However, each firm hesitates to cut prices in order to expand sales, for fear of starting a price-cutting war in which all will lose. In other words, price competition is avoided to a large degree. Instead, each firm tries to expand its share of the market by "safer" methods. It keeps prices up, but tries to attract more customers by spending money on packaging, styling, advertising, or free customer services.

Another kind of imperfect competition which also encourages the use of cost-raising types of competition is product differentiation. In this situation each producer in some way distinguishes his product from similar products made by his competitors. Often, the chief basis for such a distinction is merely a trade name or a trade mark. Each producer has a monopoly of his own trade name or trade mark, and if he can build up a reputation for it, he may be able to expand his sales and at the same time obtain a premium price. He often finds that it is more profitable to compete by spending large sums on advertising than by reducing prices.

There seems little doubt that cost-raising methods of competition are one reason for the rise in marketing costs relative to the other costs involved in providing consumers with goods and services. This raises the question whether such methods of competition are necessary and socially desirable. Some defenders of our present marketing system maintain that they are. Under modern economic conditions, it is said, intensive sales-promotion efforts must be made in order to maintain sales, production, and employment at high levels. Further, it is argued that for the individual producer large sales make possible mass production. This results in a fall of manufacturing costs which should more than compensate for any increase in marketing costs. This argument is plausible, and probably contains an element of truth. However, it should be accepted only with important reservations.

Some of the cost-raising methods of competition discussed above may not always raise total costs, and even when they do, their use may be

justifiable on other grounds than their effect on sales. Convenient packaging, for example, if carried out on an economical basis, may justify itself by reducing other marketing costs. Packaged goods are less subject to spoilage and waste, and are easier to handle, than goods in bulk. The grocery clerk who sells packaged goods can serve far more customers than the clerk who must measure everything out and put it in a separate bag. Again, money spent to improve the style or appearance of an automobile in order to increase sales may also greatly increase the satisfaction of the buyer by giving him a car in which he can take more pride. Similarly, the free customer services which department stores provide may be valued highly by some consumers, so that they are glad to pay higher prices in order to receive these services.

Probably no competitive method of increasing sales has aroused as much controversy as advertising. However, all would agree that advertising is, up to a certain point, a socially useful activity. It is clear that advertising may be a great aid in acquainting the public with the kinds of goods which are available on the market, the prices at which they sell, and the sources from which they may be obtained. Further, if advertising is honest and informative, people can learn from it how the product of one firm differs from that of another.

The enthusiastic proponents of modern advertising go much beyond this. They attribute to advertising a large part of the increase in sales, production, and standards of living which has occurred in recent years. They maintain that advertising is really inexpensive because, though the advertising budget of a firm may be large, if its expenditures are made wisely the resulting increase in sales will be so great that the advertising cost per unit of product will be very small. Further, they maintain that advertising makes possible mass production, and so reduces manufacturing costs.

The critics of modern advertising indict it on various grounds. They maintain that most advertising is not informative. At best it is designed to catch the attention of the reader or listener, in order to impress indelibly on his mind a brand or trade name with which he is already familiar. At worst it is false or highly misleading. Much of it, they say, represents a pure social waste, an unnecessary marketing cost which must be added to the price paid by the consumer.

To support the contention that much advertising is a social waste critics often point to the cigarette industry or the automobile industry.

They say that the huge amounts of money spent by automobile companies on advertising do little to inform people about automobiles or to increase the total sales of the industry. They merely help each company to hold its sales volume in competition with other companies. If one company increases its advertising budget, the others must follow suit. The public, meanwhile, pays the bill.

There is no simple way of resolving this argument between the enthusiastic proponents of advertising and its extreme critics. The truth lies somewhere in between. There appears to be no doubt that extensive advertising is essential to the efficient operation of a free-enterprise economy. Without it, competition would be very much less active and effective. On the other hand, it must be admitted that some advertising seems to represent social waste. It either strives to mislead people, or it seeks to induce them to buy one brand of a product in preference to another which, in many cases, is practically identical.

The effect of monopoly on marketing costs. Does monopoly increase marketing costs? Our answer to this question depends in part on what we mean by "marketing costs." Any monopoly profits made by distributors must, as a rule, be passed on to consumers. Therefore, if we mean by marketing costs the difference between what the farmer or manufacturer receives and what the ultimate consumer pays, any monopoly profits made by distributors represent an addition to marketing costs. Of course, to the distributors themselves the extra price which they receive as a result of their monopoly power represents, not cost, but profit.

However, outright monopoly is very rare among enterprises which specialize in marketing. Even the mail-order houses and the great store chains sell in markets which are highly competitive. Nevertheless, it must be remembered that marketing activities are carried on not only by enterprises which specialize in marketing but also by manufacturers and producers of raw materials. Monopoly or monopolistic arrangements anywhere in the productive process may have an effect on marketing costs, that is, on the spread between the cost at the farm or factory and the price which the consumer pays.

As an illustration of the effect of monopoly power on distribution costs, consider the manufacturer of trade-marked goods. Every such manufacturer has a monopoly of products bearing his trade mark, and he can fix the price at which he will sell them. He may also be able,

where the law permits, to fix the price at which retailers must sell his products to the public. If so, he effectively determines the "marketing cost."

Monopoly is closely related to price discrimination. Where a producer has a certain amount of monopoly power, even though it be only through the control of valuable trade marks, he is in a position to practice price discrimination among buyers. Sometimes he discriminates very unfairly. For example, he may sell to large chain stores, in order to get their business, at a much lower price than to small retailers. Such discrimination tends to drive the small retailers out of business, and thus to reduce competition in the field of marketing.

While there is little outright monopoly among marketing enterprises themselves, they are always anxious to maintain their prices and profits margins. This provides them with an incentive for making monopolistic arrangements if the opportunity presents itself. Often they attempt to make agreements with their competitors, either directly or through trade associations. However, it is usually difficult to bring all the distributors of a product into such agreements, or to hold in line those who do enter into them.

Are Marketing Costs Too High?

The difficulty of measuring marketing costs. We have observed that processors perform many marketing functions. We may also note that distributors perform some processing functions. For example, grocers often package goods which they receive in bulk, clothing stores alter suits, restaurants prepare much of the food they serve, dealers selling appliances alter and install them. Some of the costs incurred in these operations should be classified as manufacturing or processing costs. Again, such costs as insurance, taxes, and financing relate to both manufacturing and marketing.

In many industries any allocation of costs between manufacturing and marketing is purely arbitrary. As a practical matter, many firms make no attempt to distinguish carefully between costs incurred in manufacturing and in distribution. Hence, we do not have a perfectly clear picture of the actual costs incurred in marketing a good. However, sufficient data are available to allow for some conclusions as to the approximate amount of such costs.

What is involved in the marketing process? Many of the people who assume that marketing costs are unreasonably high also assume that marketing is a very simple process, and that therefore it should require little investment or labor if only it were reasonably well organized. They can see that the farmer who raises potatoes must have a heavy investment in land and tools, and must perform much hard labor. However, once the potatoes are raised, they do not see why there should be any great difficulty in getting them into the hands of consumers.

This notion that marketing is simple and should require little labor or expense is widespread. Consequently, when people discover that the consumer often pays for a product two or three times what the farmer receives, they immediately assume that someone is getting a "rake-off," and that both the farmer and the consumer are being exploited. In most cases there is no justification whatever for such an assumption.

When farmers sell potatoes to their neighbors or to the country store, marketing is a simple process and requires nowhere near as much labor and investment as does the growing of potatoes. However, when potatoes are sold in distant markets to consumers in large centers of population, the situation is likely to be entirely different. Under such conditions the total investment required for marketing is very large. It includes trucks, railroads, warehouses, wholesale establishments, and retail stores. The labor required is also great, and may in total be considerably more than the labor required to grow potatoes. It includes the labor of truck drivers, of railroad employees, and of all the employees of warehouses, wholesalers, and retailers. It includes the labor not only of people who do the physical handling of potatoes, but also of those who keep records and accounts. We should not, therefore, be too ready to assume that marketing costs are unnecessarily high.

We might, to be sure, raise the question, Is all this marketing machinery necessary? Could not the farmer take his potatoes directly to the consumer? The answer is no. In most cases if the farmer attempted to sell his potatoes directly to consumers the cost in time and labor would be very much greater than it is when potatoes are handled through the regular channels of distribution. Besides, the farmer who undertook to sell all his potatoes directly to distant consumers would have no time left in which to grow them.

Our modern complex marketing organization is expensive, but considering the task it performs it is probably reasonably efficient. It makes possible the high degree of specialization required in a modern indus-

trial economy. Without it, our whole economy would break down. Certainly without it territorial specialization and mass production would not be possible. It seems certain that the gains much more than offset the costs.

Why marketing costs may be too high. In spite of the fact that our marketing organization performs a tremendous task with reasonable efficiency, it is probable that some marketing costs are unnecessarily high. There are several possible explanations for this.

1. There may be overemphasis on cost-raising methods of competition, and not enough emphasis on price competition.
2. Marketing capacity may be excessive, resulting in too much overhead cost.
3. There may be too many small, inefficient firms, and perhaps too many middlemen between the producer and the consumer.
4. In some cases monopolists may exact excessive profit margins.
5. Marketing profits may be generally excessive.

Are marketing profits too high? There seems little reason to believe that marketing enterprises as a group make unreasonably high profits. One of the most comprehensive studies of this problem was made under the auspices of the Twentieth Century Fund in 1939. As to whether profits in marketing are too high, the answer was as follows: "Certainly there is little evidence of general high profits being made in the field of distribution considered as a whole. Some firms, it is true, and some newer handlers of distribution, have been conspicuously profitable. However . . . in relatively prosperous 1936, half of all the trading or distributing corporations in the United States showed a loss on the year's operation." [3]

It was further estimated that the net profits of all groups studied were only about 2 per cent of their gross sales. On the basis of this study, it may be concluded that on the average the high costs of marketing are not the result of high profits.

A Program for Reducing Marketing Costs

Emphasizing price competition rather than cost-raising competition. If distributors spent less money to attract customers by advertising,

[3] "Does Distribution Cost Too Much?" The Twentieth Century Fund, New York, 1939, p. 335.

special services, liberal credit terms, and the employment of salesmen on high commissions, marketing costs and prices to consumers might be appreciably reduced. To what extent expenditures for such purposes can be eliminated is debatable. There is reason to believe, however, that some progress could be made in that direction. Two developments would definitely help to reduce the use of cost-raising methods of competition. These are (1) more effective consumer education, and (2) a greater realization on the part of businessmen of the power of lower prices to expand sales.

The extension of consumer education. If consumers generally were trained to get the most out of every dollar, cost-raising methods of competition would be less effective and less popular than they are now. Distributors would find that offering attractive prices paid better than keeping prices up and spending large sums on advertising, or on nonessential services. The problem is, of course, not a simple one. Some consumers value special services and are willing to pay for them. The majority, however, would probably dispense with many such services in favor of lower prices, if they were given the choice.

Professor James Palmer in 1937 made a list of curtailments of service to consumers which might be made to reduce costs. His list included the following suggestions: discontinue selling for credit; eliminate free delivery service or reduce the frequency or zones of service; carry a smaller stock and require buyers to wait for delivery of orders of goods not stocked; occupy lower rent locations; operate shorter hours to concentrate buying periods; sell only in quantity in order to eliminate small-unit purchases; locate only in large trading centers; sell only staple merchandise to reduce losses because of change of style; withdraw the privilege of returning goods; and reduce the number of salespeople.[4]

The changes suggested above are drastic, and obviously most merchandising enterprises would find them difficult to make. Some of these methods, however, have been employed successfully by chain stores. The success of such methods depends principally on two considerations: (1) Do they make possible significant price reductions? (2) Are there enough consumers who are willing to sacrifice service and convenience in favor of economy?

[4] *Journal of Marketing*, April, 1937, pp. 391–392. Mr. Palmer is now president of Marshall Field and Company.

The educated and alert consumer finds that he can save in many ways. Often, for example, he finds that local or little-known brands of canned foods are cheaper than nationally advertised brands, and just as good or even better.

In its 1937 study the Twentieth Century Fund made the following recommendations for improving consumer education:

1. Governmental agencies which do, or which easily might, contribute to consumer education should be expanded and coordinated. Such agencies include the Consumers' Guide in the Department of Agriculture, and the Standards Section in the Department of Labor.

2. Private agencies such as the Better Business Bureaus should expand their efforts to eliminate fraud and misrepresentation.

3. Consumers should insist upon honest and more informative labeling, so that they can determine more accurately what they are buying.

4. Consumers should insist that more goods be standardized.

5. A differential pricing system should be employed, which would base prices on the amount of service given. Thus if a purchase were made for cash, and if the customer carried it home, and if he had no return privileges, he should obtain a lower price than if the purchase were made on credit, with delivery service, and the privilege of returning it if he was not satisfied.

6. Consumers' cooperatives should be encouraged, because they inform consumers and demonstrate to them that group buying is much more economical than small purchases.

7. Courses on consumer problems should be presented in high schools and colleges. These courses should be designed to train consumers in good buying habits so as to reduce marketing costs.

8. Consumer budget studies should be undertaken to inform the buyer of the wisest way to distribute his expenditures, and to make him more price conscious.

Setting up standards of quality and requiring adequate labeling. With many products it would be possible to set up by law certain standards of quality, and to require correct labeling of goods offered for sale. This would be possible, for example, with canned foods and many textiles. Such a system would be a great convenience to consumers. It would also encourage price competition, and discourage heavy expenditures to attract customers in other ways. This result would follow because under such a system many consumers would make their purchases

on the basis of the grade labels, and not on the basis of extravagant advertising claims.

Some labeling of goods is now required by law. For example, fabrics containing wool must be labeled with the percentage and kind of wool fiber, and the percentage of any other kind of textile fiber which they may contain. As yet, however, all attempts to require government grading of canned foods have failed because of the opposition of some large canners.

Greater recognition by business of the power of low prices to widen markets. To say that business generally does not recognize the power of low prices to widen markets would be to misrepresent the facts. However, business does not always give as much weight to the price factor as it should. In general it may be said that the greater the emphasis which businessmen put on price competition, the less will be the emphasis put on cost-raising methods of competition.

Many of the great advances in the organization of our marketing system have resulted because some businessmen did recognize the power of low prices to expand markets. For example, the success of the chain stores is the result of low prices. These were made possible not only by large-scale buying, but also by the elimination of credit and free delivery service, and the introduction of the self-service idea to reduce the cost of clerks.

Another example of recognition by merchandisers of the power of low prices to expand sales is the large number of special discount arrangements which are available to alert consumers. For a great variety of goods, any consumer who takes the trouble can obtain a discount card entitling him to special "wholesale" prices. While such prices are not truly wholesale, they are usually much lower than the regular retail price, and thus they represent a substantial reduction in the "distribution costs" which are paid by the consumer.

Genuine price competition in the retail field cuts marketing costs in various ways. One of its significant effects is to eliminate "excess" marketing capacity. It achieves this result by squeezing out small or inefficient merchandisers, thus eliminating unnecessary overhead. Efficient merchandisers, who handle a large volume of trade, can operate successfully on a relatively small margin between the wholesale and the retail price.

On the other hand, if some arrangement is in force which effectively

keeps retail prices and retailers' margins high, the effect is to draw an unnecessary number of merchants and an unnecessary amount of capital into the business. Though many of these merchants sell relatively little, they can survive because of their high profit margin. The consumer pays the bill for all this unnecessary man power and equipment.

Increasing the size and efficiency of marketing enterprises. One of the most significant trends in reducing or keeping down marketing costs has been the development of very large enterprises. In most cases the factor which has stimulated the growth of such enterprises is the advantages of large-scale operations. The mail-order houses and chain stores have been leaders in this movement. Other large marketing enterprises include department stores, farm cooperatives, and alliances of independent grocers.

Such large marketing enterprises are able to reduce costs by purchasing or selling in quantities. Frequently they also reduce customer services. We have already noted that chain stores generally sell for cash and operate on a self-service basis. Further, they limit their sales largely to staple goods. In many cases a large merchandising organization can obtain better management, and so achieve greater efficiency of operation, than smaller enterprises.

Often large merchandising organizations can reduce marketing costs by reducing the number of middlemen through whose hands goods pass. The mail-order house and the chain store often buy directly from the grower or manufacturer, and sell directly to the consumer.

Among the advantages claimed for large-scale enterprises are lower operating costs, fewer free services, more rapid turnover of stock, greater standardization, greater income from salvaged goods, lower advertising expenses, better division of labor, better integration of wholesale and retail activities, lower interest costs, lower wages per dollar of sales, greater advantages in buying, and larger profits on a smaller margin.[5]

Increasing the size of marketing organizations has undoubtedly been an important factor in the last two or three generations in counteracting to some extent the rising trend of marketing costs. However, in fields where their advantages are clear, large marketing enterprises are already well established. To what extent a further growth or multiplica-

[5] PHILLIPS, CHARLES R., "Marketing," Houghton Mifflin Company, Boston, 1939, pp 453–458.

tion of such enterprises offers hope of significantly reducing marketing costs in the future is not entirely clear. Nevertheless, there are probably still some possibilities of reducing marketing costs by eliminating firms that are too small to operate on the most efficient basis.

It should also be noted that large-scale merchandising enterprises have definite disadvantages and limitations. For example, they are not well suited to deal with goods that cannot be standardized. They sometimes have difficulty in adjusting their policies to meet local conditions. They are likely to operate on an impersonal basis, therefore failing to gain the loyalty of customers. Finally, their unwieldiness makes them difficult to manage. Under good management they may be very efficient. Under poor management they may be less efficient than many smaller organizations.

The prevention of monopoly and unfair competition. The relation between monopoly and unfair competition has already been discussed in the chapter on Monopoly. Certain unfair methods of competition can be applied only by a very large enterprise which already has some degree of monopoly power; and often such methods are employed in order to consolidate a monopoly position which was previously incomplete. The early Standard Oil Trust is a good example of this.

As noted earlier, there is little clear-cut monopoly in the distribution field. Arrangements that might be called "monopolistic" are sometimes found—for example, trade-association attempts to maintain "fair" prices. It is pretty certain, however, that there would be a great deal more monopoly in the field of distribution were it not for the measures that the government has taken to combat both monopoly and unfair competition. If marketing enterprises were allowed to build up monopolies, marketing costs would certainly rise.

The most important measures aimed at monopoly and unfair competition are the Sherman Antitrust Act, the Clayton Act, and the Federal Trade Commission Act. All three of these laws have been discussed in the chapter on Monopoly. A more recent piece of legislation, one aimed directly at certain unfair practices in the field of marketing, is the Robinson-Patman Act of 1936.

The Robinson-Patman Act was passed as an amendment to the Clayton Act. Its purpose was to prevent producers from giving excessive or unfair price concessions to large distributors, "where the effect of such discrimination may be to substantially lessen competition or tend to

create monopoly." The test of discrimination was made cost. A seller could give a large distributor a price reduction only if he could show that this reduction was justified by the amount by which selling in quantity reduced the seller's own costs.

Business opposition to the antitrust laws. It seems clear that the antitrust laws and the laws forbidding unfair methods of competition have aided in keeping down marketing costs by checking the growth of monopoly. However, these laws are by no means universally popular with businessmen. This is especially true of the antitrust laws.

Many businessmen argue that if it were not for the antitrust laws producers and distributors could cooperate voluntarily to maintain fair prices and fair methods of competition. They further maintain that this would not only benefit business, but also the public. It would, they say, stabilize production, wages, and employment, and thus help to prevent depressions.

The basic reason for the unpopularity of the antitrust laws with businessmen is that these laws sometimes interfere with their natural desire to make profits. When profit margins are endangered, one possible way for businessmen to protect these margins is to enter into price-maintenance agreements with their competitors. However, under the antitrust laws such agreements are usually illegal. As a result, in bad times prices fall, many weak competitors fail, and even the firms which survive experience shrinking profits or suffer losses. This is naturally not popular with businessmen. They often refer to the price-cutting which is characteristic of such a situation as "destructive competition."

However, from the standpoint of the health and efficiency of the economy as a whole, vigorous price competition has distinct advantages. By eliminating inefficient firms and excess capacity, it reduces both production and marketing costs. The general public benefits through lower prices, greater purchasing power, and, in the long run, more employment.

While opposition to the antitrust laws has never been strong enough to threaten this legislation directly, it has been sufficient to enable certain groups to obtain exemptions. After the First World War, the Webb-Pomerene Act permitted producers to make agreements with respect to the export market. It was argued in Congress that this was necessary in order to enable American producers to meet foreign cartels on equal terms. The Capper-Volstead Act of 1920 permitted farmers to act col-

lectively for the purpose of processing and marketing their products. The Cooperative Marketing Act of 1926 permitted them to form marketing cooperatives and to collect and disseminate statistical information. These activities had been held illegal under the antitrust laws.

The National Industrial Recovery Act of 1933 provided the broadest exemptions from the antitrust laws. With the ostensible purpose of promoting recovery, this Act provided that the firms in each industry could draw up codes setting "fair" prices and outlining fair competitive standards for each industry. These codes were to be binding on all members of the industry. Since such codes would have resulted in a wide extension of monopolistic practices, it is fortunate that in 1935 the Supreme Court declared the National Industrial Recovery Act unconstitutional.

Other measures which limit the application of the antitrust laws are the Bituminous Coal Act, the Milk Control Act, and the Miller-Tydings Act. The first two have been discussed in an earlier chapter. The Miller-Tydings Act is called a "fair trade" law. It is designed to permit producers to control the retail selling price of their trade-marked products. Under this act distributors of trade-marked products must agree not to sell such products at prices lower than those set by the manufacturer.

The Miller-Tydings Act and similar fair trade laws passed by a number of states tend to increase "marketing costs" for many trade-marked commodities. That is, they tend to increase the difference between the price received by the manufacturer and the average price paid by the consumer because they prevent price cutting on the part of retailers. However, the effect of these laws is limited to some extent by the fact that there is nothing to prevent mail-order houses, chain stores, and department stores from putting out goods under their own trade marks, and selling these goods at low prices in competition with brands subject to retail price-maintenance agreements. Nevertheless, in the interests of stimulating price competition and reducing marketing costs, the Miller-Tydings Act and other so-called fair trade acts should probably be modified, or even repealed.

The significance of an antimonopoly program. It is not likely that even a vigorous antimonopoly program would bring a great reduction of present marketing costs, becauses monopoly appears to be a relatively minor factor in the existing high level of such costs. However, antimonopoly measures are a necessary part of any general program for either reducing or keeping down distribution costs. In the first place they

can contribute something to the reduction of costs. In the second place, and much more important, they can prevent the substantial rise in marketing costs which would surely accompany an unrestricted growth of monopoly in the field of distribution.

Conclusions

Marketing costs represent a large part of the total costs of producing goods and services. Therefore, a substantial reduction of marketing costs would make possible a reduction of prices to consumers, and an increase in consumer purchasing power.

For more than a century marketing costs have steadily risen in proportion to the total costs of production. Many people believe that this indicates gross waste and inefficiency. However, careful study and observation seem to indicate that marketing is carried on about as efficiently as other productive activities. To a great extent the high costs of marketing can be explained by other factors than inefficiency.

Much of the increase in marketing costs is the result of an increase in specialization and an increase in the proportion of the nation's output which passes through the market. High marketing costs are also explained in part by certain other factors, namely, an increase in the marketing of style goods and perishable goods, an increase in the use of cost-raising methods of competition, an increase in the size and complexity of markets, and a tendency to make monopolistic arrangements which keep prices high.

Though marketing is not subject to any unusual degree of inefficiency, marketing costs may still be higher than necessary for several reasons. (1) There may be too much emphasis on cost-raising methods of competition, and too little emphasis on price competition. (2) Excess marketing capacity may result in too much overhead cost. (3) There may be too many small, inefficient distributors, and goods may pass through too many hands between producers and consumers. (4) Monopolists may in some cases exact excessive profits. (5) The average level of marketing profits may be too high.

Studies of marketing seem to indicate that average profits in this field are in fact very moderate. Nevertheless, there seem to be ways by which marketing costs might be reduced.

The following policies were suggested as the basis of a program for reducing marketing costs: First, every effort should be made to shift emphasis from cost-raising methods of competition to price competition. Such a shift might be brought about by educating both consumers and businessmen. The consumer needs to learn how to get the most for his dollar. The businessman, in many cases, needs to understand more clearly the role which low prices play in maintaining consumer purchasing power, production, and employment. Second, the development of larger marketing enterprises should be permitted and encouraged wherever this would increase efficiency. Third and last, the government should make every reasonable effort to protect free markets and to prevent the growth of monopoly in the field of marketing.

Review Questions

1. Explain the various meanings of "marketing," "production," and "distribution."
2. As the terms are used in this chapter, what is the relation of marketing to production?
3. State five factors that may help explain why marketing costs have been rising for more than a century relative to other costs of production. Explain the effect of each of these factors on marketing costs.
4. Do cost-raising methods of competition always raise the total costs of providing goods for consumers? Explain.
5. Does advertising usually raise marketing costs? Defend your point of view.
6. To what extent does monopoly account for high marketing costs? Defend your point of view.
7. Do marketing costs represent more waste and inefficiency, on an average, than other costs of production? Why or why not?
8. Are marketing costs unreasonably high? Why or why not?
9. If marketing costs are somewhat higher than they need to be, state five factors that may help to explain this.
10. Does the average marketing enterprise make excessive profits? Describe the findings of the Twentieth Century Fund study.

11. Do you think it is possible to get business enterprise to put less emphasis on cost-raising types of competition and more emphasis on price competition? If you do not think so, explain why. If you do think so, how would you attempt to bring about such a shift of emphasis?

12. Outline a program for improving consumer education.

13. Give several important examples to show that many marketing enterprises recognize the value of price competition.

14. Give several examples to show how price competition tends to reduce marketing costs.

15. Can marketing costs be further reduced by increasing the average size of marketing enterprises? Defend your answer.

16. Do you think that a vigorous antimonopoly campaign on the part of the government would significantly reduce marketing costs? Defend your answer.

17. Explain the fact that many businessmen are opposed to the antitrust laws.

18. From the standpoint of reducing or keeping down marketing costs, what is the significance of an antimonopoly program?

PROBLEMS

1. The following statement appeared in *United States News*, June 24, 1949:

The Federal Trade Commission advises that Congress soon must make a basic choice in regard to price discrimination. Either Congress must favor unrestricted price competition, where little businesses may be hurt, or protect small businesses against the buying advantage the large-quantity purchasers have. "Whatever choice is made," says the Commission, "some competition will be weakened and other competition strengthened."

From the standpoint of the public welfare, which policy do you think Congress should follow? Defend your answer.

2. The following statement appears in a recent pamphlet on cooperatives: "Consumers' cooperation offers a method by which the profits of retailing, and frequently of wholesaling as well, can be saved for the consumer."

a. Do you agree? Why or why not?

b. If you do agree, what percentage of the retail price would you estimate can be saved by a consumer who buys from a cooperative? Would it vary for different commodities? Explain how you reached your conclusions.

Suggested Readings

Edwards, Corwin D.: "Maintaining Competition," McGraw-Hill Book Company, Inc., New York, 1949.

Nourse, Edwin G.: "Price Making in a Democracy," Brookings Institution, Washington, D.C., 1944.

Nugent, Rolf: "Consumer Credit and Economic Stability," Russell Sage Foundation, New York, 1939.

Phillips, Charles F.: "Marketing," Houghton Mifflin Company, Boston, 1939.

Reid, Margaret G.: "Consumers and the Market," F. S. Crofts & Co., New York, 1942.

Rohlfing, Charles, and Others: "Business and Government," Foundation Press, Chicago, 1949.

The Twentieth Century Fund, "Does Distribution Cost Too Much?" The Twentieth Century Fund, Inc., New York, 1939.

19. The Economics of Agriculture

A combination of developments has created a unique bundle of problems for American agriculture in the last two generations. Wide swings in prices of agricultural products have added to the natural hazards of farming. The problem of what to do about huge surpluses proved beyond solution throughout much of this period.

During both the First and Second World wars, the American farmer was called upon to feed millions of civilians and soldiers of our allies in addition to supplying our own stepped-up food needs. After each war the troublesome surplus problem returned when food production abroad recovered to peacetime levels. During the 1920's, and to a greater extent in the 1930's, the philosophy of subsidies for the American farmer was developed. In the period immediately following the Second World War, there was revival of the Malthusian doctrine that the world was confronted with the specter of a falling standard of living due to pressure of population and the depletion of the world's agricultural resources. It truly was a turbulent period for American agriculture, which went through a pauper-to-prince cycle, and which again faces an uncertain future.

The specific problems confronting American agriculture. By way of introduction for our brief study of American agriculture, let us list the most important problems which confront this basic industry.

1. The attainment of a greater degree of stability in farm income.

2. The production of food and fiber in sufficient abundance and at low enough cost so that rising nutritional standards can be attained for our increasing population.

3. The improvement and utilization of our land resources in a manner that will increase their productivity.

4. The obligation of the remainder of our economy to subsidize agriculture. If such a responsibility exists or is accepted, how can it best be accomplished?

5. The retention of our foreign markets for food and fiber, when we peg prices of United States agricultural products at levels higher than those elsewhere.

Most of the questions confronting agriculture concern these five major problems. Our discussion will center around them. They are all closely related to one of the primary goals of a proper agricultural policy: the production of sufficient food of satisfying quality at a price which all can afford.

The place of agriculture in the American economy. How do the problems of agriculture relate to the other major problems of the American economy? In the first place, it is doubtful whether the entire American economy can long remain prosperous unless agriculture also participates in the general well-being. The city dweller is engaged in manufacturing, selling, and transportation. The farmer produces food. The products of the city are exchanged for those of the country. Unless the farmer is well off, he cannot buy in abundance the goods and services produced in the city. In other words, our economy is so interrelated that no one large segment can be depressed without affecting the others. Moreover, the American farmer is intensely concerned with our international economic relations, since he must have export markets for certain products if he is to remain prosperous. Domestic politics also have become closely intertwined with the economics of agriculture. The farmer has come to look upon high prices as a right which he will enforce through powerful farm organizations. Taxpayers, perspiring over their income-tax returns, are puzzled by political promises to reduce the cost of food, while the government makes heavy payments to keep farm prices up. Our farmers, sheltered by price supports, produce more and more, which the government takes off their hands, while our export markets shrink due to artificially high farm prices. It becomes of major importance, therefore, for us to analyze the problems of agriculture, while keeping in mind their relations to the remainder of the economy.

Short- and long-term factors affecting American agriculture. Four variables are of major importance in explaining year-to-year fluctuations

in farm income: (1) the level of employment in the industrial areas; (2) the general price level; (3) the foreign demand for American agricultural products; (4) crop conditions from year to year.

To fully understand the problems of agriculture, long-term factors must also be taken into account. It is important to be familiar with the technological developments which have caused great changes in American agriculture in the last four decades. The problems of agriculture cannot be understood, moreover, without a working knowledge of the various steps taken by the Federal government in behalf of the industry, most of which center around efforts of government to assure some stability for the farmer in the relationship between what he must pay for city-made goods and what he gets for his own products. Over the longer term, the demand for farm products will be determined by population and consumption habits. The supply will be determined by the availability of land resources and the skill with which they are utilized.

A recent Department of Commerce study showed that income originating in agriculture, forestry, and fishing—comprised almost entirely of income from farming—was a slightly higher percentage of national income in 1947 than in 1929.[1] However, income originating in agriculture during that period showed somewhat more cyclical variation than national income as a whole. In 1929, 9.2 per cent of national income was derived from agriculture, forestry, and fishing, compared with 7.4 per cent in 1932, 11.0 per cent in 1935, 8.6 per cent in 1940, and 9.5 per cent in 1947. The Department of Commerce study pointed out that the maintenance of agriculture's position in the national income total was accomplished in the face of a continued marked decline in the number of persons engaged in agricultural production. This maintenance of income was made possible by favorable experience with respect to both productivity and price movements.

Further discussion of the long-term factors affecting American agriculture appears to be in order, as background for analyzing the problems of this industry. Let us tabulate these factors in the briefest possible form, after which we will investigate them in more detail in the remainder of this chapter.

1. Growth of our entire economy. The increase in population expands

[1] DENISON, EDWARD F., "Industrial Composition of National Income," *Survey of Current Business*, December, 1948, pp. 11–17.

the demand for farm products. Moreover, as the real income of the nation rises, better diets become possible for more individuals. With a gain in per capita income, the demand for agricultural products mounts. In most parts of the world, there is need for increased per capita consumption. This is also true for some segments of our own population.

2. An increase in farm production due to progress of technology. This includes the gains in output that can be related to the use of more and better machinery. It also covers gains resulting from better hybrid seeds and better methods of farming.

3. Changes in the fertility of the soil and the amount of farm soil available. This has been an adverse factor in regard to the over-all output of American farms, although its effects have been more than offset so far by gains in technology. In some of our richest agricultural sections, the ravages of erosion can be clearly seen. Several inches of rich topsoil are known to have disappeared within a generation or two in some areas. Vigorous efforts to preserve the productivity of our farms are now being made.

4. Changes in the size and number of farms. There has been a trend toward fewer but larger farms as new machinery and new methods proved to be more profitable on larger units. The size of the labor force required to produce our agricultural products has declined, as output per worker has gained, due to improved technology.

Owing to the net effect of these long-term factors, agricultural production has shown a strong tendency to rise. According to recent studies by the Department of Agriculture, farm output has gained by more than two-thirds since 1910. The rise in output per acre in the last decade has been particularly impressive, as we shall see in a later section. Numerous studies indicate that farmers will continue to shift to machine power as implements adaptable to small farms become more available. Since 1918 mechanization has released about 55 million acres from production of feed for horses and mules to production of food and fiber for human use. Some estimates place the amount to be so released in the next generation at between 15 and 20 million additional acres. It also is estimated that the number of farm workers needed may decline by another 15 to 20 per cent because of increased mechanization.

Thus it appears that the question of markets is more of a problem to American agriculture than production. Over a short span of years it is conceivable that poor crops could reduce temporarily the high level of

output by the American farmer, but the longer trend is clearly upward. Events of the war and early postwar period have not been typical. Food shortages then were due in large measure to temporary factors related to wartime destruction and interruptions to production.

The ghost of Thomas Robert Malthus. Considerable discussion has taken place in this postwar period regarding the ability of the world's farms to produce enough food and fiber to support the growing population of the planet. Population trends in relation to the world's natural resources have been discussed in Chap. 3. By way of a broad review, the population of the world more than doubled—from 1,000,000,000 to 2,200,000,000 persons—in the hundred years prior to 1940. It has been estimated that about 17,000,000 additional inhabitants were added to the world's population each year during the 1940's despite natural and man-made catastrophes during this tumultuous period. Since about 2.5 acres per person are required to maintain an adequate standard of living, it is obvious that a problem of major magnitude would be in the making if such a rate of population growth continued. Illustrating the effects of this problem on living standards, it has been estimated by one writer that the world could support only 700,000,000 persons, in contrast to more than 2,400,000,000 now, if all had the average American standard.

The specter of world starvation is not new. It has been haunting the world since the gloomy Scotch clergyman, Thomas Robert Malthus, forecast degradation and misery for the masses because of the pressure of population on the world's food resources. Malthus's forebodings were voiced early in the last century, but in this postwar period the evil prophesies of the neo-Malthusians have been fully as terrifying. A large number of books and magazine articles have popularized the neo-Malthusian doctrine. Examples are "The Road to Survival," by William Vogt, a Book-of-the-Month selection, and "Our Plundered Planet," by Fairfield Osborn. A *Harper's Magazine* article, "Too Many People," by C. Lester Walker, was widely read.[2] The doctrine in all such books and articles is essentially similar: increasing populations and wasteful use of land resources are leading inevitably to a lower standard of living for all, and to starvation for many millions. As expressed by Mr. Vogt, chief of the conservation section of the Pan-American Union, "we may as well give up all hope of continuing civilized life" unless we face our problems

[2] February, 1949, pp. 97–104.

squarely and take the dual course of control of population and the restoration of resources.

What is the reason for this plight if it really exists? The neo-Malthusians point to the fact that the planet has no new lands, or almost none, to cultivate in order to provide food for, to use Mr. Vogt's expression, "the 50,000 stomachs which are now being added to the world population every day." The older farm lands, it is claimed, have been "plundered" by overproduction of crops or by overgrazing. Erosion has taken a fearful toll. The priceless fertility of the soil is being lost as the unreplaceable topsoil washes down the rivers.

Malthus was wrong in his day. The fearful events he forecast have never taken place. Instead, the century after his death in 1834 was a period of increasing plenty for the masses, at least in the western world. Are the neo-Malthusians any more likely to be right? Some of the questions they raise as to the wasteful use of land resources must be faced squarely. We shall discuss some of their contentions later. But what of their general argument?

The neo-Malthusians perform a great social service in pointing so vividly to the need for scientific farming practices, such as erosion control and building soil fertility. However, in rebuttal, it must be pointed out that in some parts of the world, including the United States, man has begun to demonstrate the knowledge and the will necessary to build up the soil instead of continuing to destroy it. Thousands of good farmers, coached by our agricultural experts, know what to do. The first problem is to stop erosion by contour ploughing and other devices. Then, by adding lime and fertilizer, and by growing grass, clover, and alfalfa, the productive powers of the soil can be increased or restored. Sometimes the addition of boron or manganese will increase the ability of tracts to produce. Experts in soil culture say that man need not live helplessly as the servant of the soil. He is its master.

The soil men are not impressed to the point of despair over the wastage of the irreplaceable topsoil. Recent experiments have indicated that large crops can be produced within a few years, even in denuded areas, by proper treatment. For example, a corn crop of 86 bushels per acre was produced on an experimental plot at a United States government experiment station in Ohio in the sixth year after 10 inches of topsoil had been skimmed off virgin grassland. The 86 bushels is more than twice the United States average.

Other remarkable records of achievement are at hand to indicate that the productive powers of our land resources can be multiplied by better methods, the use of improved seeds, by careful soil building, and by more mechanization. It took 99 American farm people to feed and clothe themselves and one other person in 1787. At the present time, 19 American farm people can produce sufficient farm products for themselves, 56 other Americans, and 10 persons in other countries. In North Carolina, corn yields were raised from around 22 bushels an acre to as high as 125 bushels through the use of hybrid seed, more fertilizer, and new farming methods. Long-time records available in some sections of the United States indicate that the productivity of the land on the average is greater than in pioneer days. The gains in output per acre have been spectacular during the past decade or so in such basic staples as wheat, cotton, potatoes, and corn, to mention only a few.

Dr. Robert M. Salter, chief of the United States Agricultural Research Administration, has taken a more optimistic view than many of the ability of the world to feed its billions of people. He has estimated that the world's needs, as computed by the Food and Agricultural Organization of the United Nations, would be met in large measure by 1960 if the world's crop lands were cultivated at the efficiency levels attainable in the United States by 1950.

A discussion of neo-Malthusianism on one hand, and the return of the crop surplus problem in the United States on the other, may appear paradoxical. So far as American agriculture is concerned, the crop surplus is likely to be the vital problem for some time to come. The remainder of the world, of course, is not so fortunate. The merit in such writings as those of Mr. Vogt is to point to long-term problems which could have fearful consequences, unless we protect our land resources. The surplus problem is with us now, however. Instead of starvation and misery we are plagued by plenty, at least at the high government-supported prices of the late 1940's. Also a careful examination of the evidence indicates that the present food needs of the entire world can be met. The basic problem is not that of stretching inadequate resources, rather, it is the problem of introducing throughout the world improved methods of producing food and fibers and of getting them to those in need.

Recent developments in United States agriculture. Agriculture was one of the most prosperous American industries during the war and early postwar years. The task of feeding many millions of Europeans, as

well as our own increasing population, fell upon the American farmer. In addition, higher incomes in the United States brought increased consumption of many kinds of foods. However, it has already been noted that conditions were not always so prosperous for the American farmer. During most of the 1920's and 1930's we spoke of our "agricultural problem" as something which almost defied solution.

Let us look at the changed position of American agriculture. In 1939, United States farm income, including government payments, amounted to $7.9 billion. The figure seems small in comparison with $21.7 billion in 1945, $25.3 billion in 1946, $30.5 billion in 1947, and $31.5 billion in 1948. Part of the increase was due to higher production, but most can be accounted for by the sharp increase in prices which occurred during those years. If we use a price index which has as its base, 1909–1914 = 100 (we shall see later that these years have special significance in American agriculture), the prices received by the American farmer can be expressed in the following table of index numbers:

Table 42. Indexes of Prices Received by Farmers

1939	= 95
1941	= 107
1946	= 211
January, 1948	= 307
October, 1949	= 243

Huge export demand for American agricultural products during the early postwar period was in large measure responsible for the spectacular climb in prices during 1946, 1947, and the early part of 1948. Later prices turned downward as foreign requirements subsided.

The events of the period during and after the First World War remain vivid in the minds of many American farmers. Agricultural prices advanced then for much the same reasons responsible for the climb in the Second World War period. However, by 1920 European agriculture showed definite signs of revival, and surpluses of American agricultural products appeared as export needs were reduced. The collapse of commodity prices in 1920 engulfed the American farmer. Lulled into a false confidence by the large earnings of the war years, he had contracted debts which he could not meet at a lower level of prices for farm products. While the remainder of the American economy enjoyed prosperity throughout the 1920's, agriculture was in a state of depres-

sion. Later, when the great depression carried urban purchasing power to very low levels, the condition of American agriculture became all the more critical.

To meet this situation the government made various efforts to help the American farmer. These efforts included price-support measures designed to bring more equality between the prices farmers receive and the prices they must pay for urban products.

The revolution in agriculture. Just as a revolution occurred in methods of industrial production because of the substitution of machines for handicraft methods, so likewise has a revolution occurred in agriculture. This agricultural revolution has been due in part to the introduction of new and better machines. It also can be attributed in part to better methods of soil utilization, the development of better types of food- and fiber-producing plants, and the wider use of fertilizer. The effects of the revolution can be seen in two ways. One is the rise in output per acre; the other is a sharp gain in output per worker. To a large extent the revolution in agriculture has occurred in the last three decades. During the war years, we saw the full impact of this revolution when a smaller number of farmers were able to step up the production of foodstuffs enough to support a high standard of living at home while feeding our armed forces abroad and partly supplying the armed forces and civilian populations of our allies.

Some of the achievements in increasing yields are striking. In the 70 years before 1937, there had been almost no gain in per acre output. Potatoes were the only crop in which any appreciable gain had been made. However, per acre yields jumped as much as 40 per cent in the 10 years from 1937 through 1946. Corn yields climbed from less than 23 bushels an acre to more than 31. Wheat rose from an average of 13.5 bushels an acre in the years 1927 to 1936 to more than 16 bushels in the next decade. Cotton increased from 180 pounds per acre to more than 254 pounds.

Gains continued as the postwar period progressed. In 1948, United States cornfields produced an average of 42 bushels an acre; the 1930 average was 20 bushels. The per acre yield of cotton farms was 147 pounds in 1930; in 1948 it averaged 311 pounds. Soy bean growers two decades ago got an average of 13 bushels an acre. In 1948, the average was 21 bushels. In general, total crop output per acre in 1947 and 1948 averaged 25 to 35 per cent above prewar.

As for the gains in output per worker, the following table shows what was accomplished during the war years alone.

Table 43. Indexes of Farm Workers and of Increased Productivity per Worker

	Number of farm workers	*Production per farm worker*
1935–1939	100	100
1946	91.7	142.9
Change	−8.3%	+42.9%

Source: U.S. Department of Agriculture.

Thus we see that production per worker increased nearly 43 per cent, while the number of farm workers was decreasing more than 8 per cent. We can see the effect of this revolution even more vividly over a longer span of years. In 1910, when the population of the United States was 92 million, about 12 million farmers and farm workers were needed to keep the nation in food and fiber and to fill our export requirements. Recently, with 150 million Americans and many millions of Europeans dependent upon our food, only 9.5 million farmers and farm workers were needed.

There also have been many other important changes in American agriculture. Most are related to the gains in per acre and per worker productivity. The typical American farmer now farms a little less than 200 acres. This is 20 acres more than he farmed in 1940, and 50 acres more than his father worked 20 years ago. This increase in the size of farms has been made possible by greater utilization of machinery. Whereas the farmer of 25 years ago toiled long hours with his team, the 1948 farmer needs to work far fewer hours a day, except during the peak of the crop season.

The total number of our farms dropped from 6.4 million in 1930 to less than 5.8 million in the early postwar period. More than 200,000 farms just "disappeared" during the war period alone. They were, of course, absorbed into other farms. Although the number of farms has

been decreasing, the acreage devoted to agriculture has been on the rise.

Two other changes should be pointed out in regard to the size of farms. The number of really big farms, those with 1,000 acres or more, has increased by two-thirds in the last 25 years. They now total more than 100,000. About 40 per cent of the nation's farm land is in these huge tracts. As might be expected, the family-sized farm is on the wane in the United States. These moderate-sized farms, ranging from 100 to 250 acres, represented one-third the total number of American farms in 1920. Now they make up less than one-fourth of the total. An example of what can be accomplished in the way of making farming "big business" can be seen in the Seabrook Farms in New Jersey. This enterprise tills 19,000 acres in Cumberland and Salem counties, and also contracts for produce from surrounding farms. In a recent year, it froze 65 million pounds of vegetables, and canned 100 million pounds. It employed 5,000 workers, 115 tractors, and 500 trucks.

While mechanization has brought agricultural advances all over the United States, progress has been especially rapid in southern agriculture. This revolution in the South has been going on for two decades, but it gained momentum after the Second World War as more machinery became available. The revolution in southern agriculture is related to mechanization and improved methods. It also has been characterized by abandonment of the one-crop system. Whereas southern agriculture formerly was largely devoted to the production of cotton, it now has become much more diversified.

Tractors and other agricultural implements have been appearing by the thousands on southern farms. It is estimated that more than a million southern farm families will be displaced by the mechanical cotton picker and other machinery. The passing of the one-crop system, without much sacrifice in total cotton output, is illustrated by what has happened in South Carolina. In that state, 2,500,000 acres were planted to cotton in 1927. Now the acreage is less than 1,000,000, but yield per acre has almost doubled. As a result, the total output of cotton is not down much. Livestock, fruit growing, dairy farming, and other specialized forms of agriculture have progressed. Livestock has become a major southern industry. In Georgia, long a state whose economy was built around cotton, farm income from livestock is almost as large as from cotton.

Our agricultural plant. The farm plant of a nation is made up chiefly of land, buildings, livestock, and machinery. The important elements of our farm plant, as disclosed in the 1940 census, are indicated in Table 44.

Table 44. The United States Farm Plant in 1940

(*In acres*)

Total, all farms	1,061,000,000
Lands used for crops	342,000,000
Harvested, 1940	321,000,000
Crop failure	21,000,000
Idle and fallow	57,000,000
Plowable pasture	131,000,000
Woodland	137,000,000
All other farm land	384,000,000
Value of land, buildings, machinery, livestock	$40,000,000,000

Source: "Statistical Abstract."

The total working force of American agriculture in 1940 was 9,694,000 persons, while the total number of persons living on farms was 30,597,000. The breakdown of the farm labor force was as follows:

Farm operators	6,097,000
Other family labor	1,844,000
Hired labor	1,753,000

The working force of 9,694,000 was augmented during the planting and harvesting periods by about 2,500,000 seasonal laborers.

One of the developments of our agricultural revolution has been the replacement of horses and mules by tractors. During the period from 1910 to 1940, the number of tractors increased from about 1,000 to 1,545,000. The number now exceeds 3,500,000. In 1910, there were about 19,429,000 horses and mules on American farms. A decade later, the number had risen to 22,386,000. However, there were only 13,005,000 by 1940, and the number has since declined still more.

This shift from production with horses and mules, to the faster and more efficient methods using power implements, reduced the cost of producing agricultural crops. For example, in one area the cost of labor, horses, mules, and tractors to produce 1 acre of corn in the 1920 to 1928 period was $17.77. By 1944, mainly due to mechanization, the per acre cost had fallen to $6.14. Farm costs, of course, were pushed upward sharply by inflation after the Second World War.

The possibilities of mechanization of American agriculture are not yet exhausted. Farmers would have purchased more equipment than they did during the Second World War and during the early postwar years, if it had been available. However, most of their immediate needs were met by 1949. Moreover, new and better equipment became available in the postwar period. Equipment for use on small-sized farms was introduced by several manufacturers. The mechanical cotton picker, long discussed and in operation on an experimental basis before the Second World War, became an actuality in commercial agriculture. Likewise the flame weeder, and various other new machines, were brought into use on American farms.

American agriculture before World War II prosperity. As we have mentioned, the period between the First and Second World wars was not a happy one for the American farmer. Due to the expansion of the area of cultivation during the First World War, followed by the mechanization of the 1920's, considerable overcapacity developed in American agriculture. Prices were depressed and large areas of land were no longer able to support their occupants. As a result, there was an exodus of people from the farms. While our industrialized areas were becoming more prosperous, except for the years of depression, the lot of the farmer was becoming worse. The changing relationship between our urban and rural areas is seen in Table 45.

Table 45. Changing Relationship between Rural and Urban Sectors of the United States Economy, 1920–1939

Year	*Industrial production*	*Agricultural production*	*Terms of exchange* *	*Income per person in agriculture*	*Per cent of total population in agriculture*
1920	100	100	100	100	26.1
1925	125	105	99	94	
1930	121	106	86	74	21.6
1935	116	99	86	83	
1939	145	115	82	79	20.6

* What the farmer receives for his products in relation to what he must pay for city products.

The table indicates that the position of the farmer worsened in relation to the remainder of the economy. The products of the farmer would not buy as much city products at the end of the period as at the beginning. The income of each person in agriculture also was lower in 1939 than in 1920, despite some improvement over the lows of the depression in the early 1930's. The percentage of our population engaged in agriculture declined steadily.

The distress caused by the deterioration of the position of American agriculture brought many proposals for helping the farmer. While many of these proposals were mainly designed to win the huge farm vote, there were other reasons for giving the farmer help. As already indicated, the American economy as a whole could not expect to enjoy a high degree of prosperity over the long term if such an important segment as that of agriculture was in chronic depression. It was also clear that the American farmer, through no fault of his own, had been badly hurt by several major developments. One of them, of course, was the increase in farm output caused by the agricultural revolution. This meant we did not need so many farmers as before, because each could produce much more food and fiber than formerly. The displacement of millions of persons was almost certain to result in hardship for individual families. Low incomes were earned by many of those who remained on the farm.

Moreover, the revolution in agriculture was not confined to the United States. It was world-wide, although it did not occur as rapidly elsewhere as here. This factor, plus the expansion of production in other parts of the world, brought a sharp decline in export sales of American agricultural products. This was intensified during the 1930's as more and more nations sought to become self-sufficient in food production, due to shortages in foreign exchange, or because of fears of wars to come. Some students of world agriculture blamed high government-supported prices for the loss of foreign markets by American farmers in the years just before the Second World War. It was a case of being priced out of the world market.

To many the decline in the economic position of the farmers seemed nothing short of a national calamity. They argued that a flourishing rural class is the backbone of a strong democracy. The farmer who owns his land is an individualist who has a stake in the stability of our social order. He is free and wants to maintain his independence. Supporters

of this doctrine pointed to the sequence of events in ancient Rome and elsewhere when for various reasons the yeomanry was destroyed. Thereafter, it was much easier for dictatorial governments to take over. According to this argument, the masses in the cities, having little property, are more willing than farmers to follow the leadership of a "strong" man who will promise stability and jobs.

Agricultural legislation. The collapse of farm prices as the great depression deepened was a major catastrophe. During the early 1930's farm prices fell to 50 per cent of the average level just before the First World War. Mortgage foreclosures were widespread. Banks failed by scores in the agricultural areas, and businessmen there were hard pressed. The farmer became a poor customer. Widespread agitation developed for government aid to agriculture. The result was the Agricultural Adjustment Act of 1933.

The objectives of the Agricultural Adjustment Act of 1933 are well expressed in its title. It was called: "An Act to relieve the existing national economic emergency by increasing agricultural purchasing power." It sought to restore the buying power of the farmer to the relative level which prevailed just before the First World War. Thus the widely debated parity principle became a pillar of our agricultural policy. The Act also provided for voluntary agreements among farmers to limit production. It provided a method for the export of surplus agricultural commodities, even at a loss, in order to relieve the glut on the American market.

Under the Act, the Secretary of Agriculture was empowered to work out agreements with producers calling for limitation of acreage devoted to certain crops, or for reduction of current output. The agreements provided compensation for farmers who cut back their output and otherwise cooperated in the program. Funds to make payments to farmers were obtained from taxes on the first domestic processing of commodities coming under the program. The use of processing taxes for this purpose was declared unconstitutional in 1936.

New legislation in behalf of agriculture was enacted quickly after the Supreme Court ruling on the illegality of processing taxes. The new Act was known as the Soil Conservation and Domestic Allotment Act of 1936, and it sought to obtain many of the AAA objectives by different methods.

The Soil Conservation and Domestic Allotment Act provided for pay-

ments to farmers who diverted land from soil-depleting crops to soil-building crops, and who otherwise agreed to follow soil-building practices. The government carried on its price-support program, but funds had to come from the public treasury instead of from the proceeds of special taxes as under the original Act of 1933.

In the Agricultural Adjustment Act of 1938, several new features were introduced while much of the 1936 and 1933 programs was retained. Briefly, here are the provisions of the important 1938 legislation:

1. The soil-conservation program was continued, and the Secretary of Agriculture was authorized to set up acreage allotments for producers of wheat, cotton, corn, rice, and tobacco. Payments to cooperating farmers were to be made whenever Congress provided the funds.

2. Parity payments were authorized to bring the buying power of the farmer up to the relative level of the period just before the First World War.

3. Commodity loans were authorized for cooperators in the soil-conservation program. The loans were made by the Commodity Credit Corporation, and were to be between 52 and 75 per cent of parity for cooperators in the soil-conservation program. Noncooperators could get loans of only 60 per cent of those made to cooperators.

4. Marketing quotas were provided for under the Act in the case of corn, wheat, cotton, tobacco, peanuts, and rice, if the total supply of any of these commodities exceeded a normal year's domestic and export requirements by a specified percentage.

5. The concept of an ever-normal granary was introduced into the government's agricultural program in the 1938 Act. The object was to secure a steady flow of farm products to market in a volume that would provide parity prices for the producer. Acreage allotments were set up, and provisions were made for marketing quotas if they became necessary. It was recognized that weather, insects, and other factors beyond the control of the farmer are of major importance in determining the level of production in any year. Therefore provisions were made for storage of surplus commodities in years of abundance. These stocks could be drawn upon in years of dearth.

6. A program of crop insurance was set up to remove from the shoulders of the farmer some of the risks inherent in agriculture. The Federal Crop Insurance Corporation, which eventually had a capital of $100,000,000, was established within the Department of Agriculture. The

insurance program began with wheat in 1939. New legislation in 1941 provided for insurance of cotton also. However, the insurance program had unfavorable financial results, and funds were curtailed by Congress in 1943. There has been much discussion of the feasibility of reviving and enlarging the insurance program.

Supporting farm prices. Even when the nation as a whole seemed to be enjoying prosperity during the 1920's, many farmers were facing serious problems owing to surpluses salable only at unprofitable prices. Under the Hoover administration, beginning in 1928, an attempt was made to stabilize the prices of a few agricultural products. A Federal Farm Board was created to take the steps necessary to improve the lot of the farmer. An appropriation of $500 million was voted, and an attempt was made through the Grain Stabilization Corporation, financed through the Federal Farm Board, to raise the prices of wheat and cotton by purchasing part of the surpluses of these commodities. Heavy losses were incurred, however, when the depression began, and prices all over the world began to skid with increasing momentum.

Under the Agricultural Adjustment Administration, created in 1933, the principle of parity, or the maintenance of an equitable relationship between farm and nonfarm products, became a cornerstone of American agricultural policy. The principle itself, however, was not new; in various forms it has been a factor in all farm legislation since the early 1920's. The computation of parity requires the determination of a fair relationship between what farmers receive for their products and what they have to pay for industrial goods. For most commodities, the base period is 1909 to 1914, although there are some exceptions. The parity for oranges, for instance, is 1919 to 1928. Advocates of the parity principle claim that the relationship between what the farmer had to pay and what he received was fair in those base periods; therefore, the same relationship should exist now. If the price of 100 pounds of pork would buy a pair of shoes and a pair of overalls in the base period, it should do so today.

Until enactment of the Agricultural Act of 1948, our farm program called for supporting the prices of a specified group of commodities at 90 per cent of parity. The 1948 legislation continued the prevailing system of price supports until Dec. 31, 1949, but provided after that date for a variable level of price supports ranging from 60 to 90 per cent of parity. The precise support level was to be determined on the basis of

available amounts of each commodity in relation to a normal supply. The 1948 legislation also made some changes in the method of computing parity. Further changes were made in the Agricultural Act of 1949. The 1949 legislation established a modernized parity formula that included wages paid hired labor in the computation of parity prices. Under the 1949 law, it again became possible to support the large surplus commodities at 90 per cent of parity for at least five years.

In order to compute the support price of each commodity a "base-period price" must be established. This is the average price the farmer received for that commodity in the base years. We have noted that the base period has been 1909–1914 in most cases, although the alternate formula of the 1949 Act uses the past ten years as a base. In establishing support prices, we also require an index which measures the prices of the things the farmer buys for living and production. The base period of this index also has been 1909–1914.

Let us illustrate by means of an example how the parity price of a commodity was computed under the 1948 Act. The base-period price for hogs was $7.27 a hundredweight. The index of prices the farmer pays was 251 in midsummer of 1948, or 2.51 times as much as in the base period. At any given time the parity price of any item is the base price multiplied by the index of prices the farmer pays. In our example, the parity price of hogs in July, 1948, was $7.27 multiplied by 2.51, or $18.20. A support price of 90 per cent of parity would be $16.38.

It should be emphasized that a parity price is not a rigid amount that does not change. The parity price of each commodity rises and falls by the same percentage as prices paid by farmers rise and fall. In short, the parity price does not guarantee the farmer a rigid price for his products over a long period of time. If the prices he must pay to live and produce come down, the support prices of the things he sells will decline also.

As was indicated in the period after the Second World War, a price-support program may not prevent a drastic slump in agricultural prices. In fact, it is possible for the market price of a supported item to fall below the support price. Corn provided an example after the harvesting of the huge 1948 crop. Rather rigid rules were set up in regard to corn that could qualify for the price-support program. It had to be within a certain moisture content. Much corn could not qualify. It had to be stored under specified contents that prevented deterioration. There was not enough storage space. Corn which was not eligible for price support

had to be sold at the market price, which declined considerably below support levels.

The original price-support program covered six "basic" crops. These were wheat, corn, cotton, rice, tobacco, and peanuts. The list has grown by the addition of other commodities. Among them are rye, oats, barley, sorghum, hay, cottonseed, soy beans, flaxseed, potatoes, sweet potatoes, edible dry beans, apples, hogs, beef cattle, veal calves, lambs, butterfat, milk (wholesale), live chickens, live turkeys, eggs, and wool. New claimants appear whenever a farm bill is written.

While variable price supports were modified under the 1949 legislation, the terms of the 1948 Act merit consideration. The principle of variable supports may be a compromise solution to the problem of giving some price protection to the farmer without piling up intolerable surpluses.

The 1948 Agricultural Act, as already indicated, injected the concept of variable price supports. The price of a particular commodity would be supported at varying levels or percentages of parity, depending on such factors as the supply in relation to demand, the level at which other commodities were being supported, the availability of funds, the perishability of the commodity, its relative importance to agriculture and the national economy, the ability to dispose of stocks acquired in supporting prices, the need for offsetting temporary losses of export markets, and the ability of producers to adjust supplies.

In the case of the basic commodities, the relation of total supply at the beginning of the marketing year to a normal supply determined the percentage of parity at which prices were to be supported. Total supply was defined as production, plus carry-over at the start of the marketing year, plus anticipated imports. Normal supply is the estimated domestic consumption in the previous year, plus allowance for carry-over.

Support prices ranged from 90 per cent of parity when supplies are not more than 70 per cent of normal to 60 per cent of parity when supplies are more than 130 per cent of normal. The support level would be 75 per cent of parity when total supply equals normal supply, and when no production restrictions or marketing quotas have been declared. The complete schedule for changes in support levels provided for a decrease of 1 per cent in the minimum support level for each 2 per cent increase in the ratio of total to normal supplies. However, these varying support levels were subject to important exceptions. The mini-

mum support provided in the schedule was raised if acreage allotments were in effect when the crop was planted, or if marketing quotas had been approved by producers and were in effect at the beginning of the marketing season. Under these circumstances, the lowest support level would be 120 per cent of the minimum support provided in the schedules up to a maximum of 90 per cent of parity. On the other hand, the support level would be only 50 per cent of parity if producers had disapproved marketing quotas.

Our policy in regard to price supports has been in a state of flux during the postwar period. The return of the surplus problem, bringing a sharp price decline, forced attention on the entire concept of supporting prices. Further changes in the program can be expected. It seems clear, however, that a strong fight will be waged to maintain governmental support for prices through loans, purchases in the open market, or by some other method. It also is evident that acreage allotments or production restrictions will remain, as indicated by the 1948 and 1949 legislation, unless the surplus problem can be solved in some other way.

The parity principle, as written into our agricultural legislation, has placed floors only under agricultural prices. In other words, it was intended that the farmer should have no worse a relationship than that which existed in the parity period. Nothing was said about putting ceilings on farm prices when the terms of parity deteriorated for the urban dweller. For example, in January, 1948, at the peak of the postwar inflation in farm prices, the American farmer was 23 per cent better off than he was in the parity period, 1909 to 1914.

Return of the agricultural surplus problem. Bumper crops in many parts of the world in 1948 raised serious questions in regard to the future cost to the government of its guarantee to support the prices of certain farm products. The taxpayer complained about the large outlays required to hold up farm prices; he also lamented the high cost of living which resulted in part from high food and fiber prices. The big crops here and in Europe largely wiped out food shortages. The result was a shrinkage of markets abroad for United States farm products, and the piling up of surpluses at home.

Prices of more and more agricultural commodities plummeted to support levels. Continued large plantings encouraged by high support prices warned of more trouble ahead. Efforts of the United States government to support potato prices is an example of what can happen

when farmers produce more of a crop than can be sold at a guaranteed price. At one time in the program to support potato prices the government bought surplus potatoes at $2.58 per 100 pounds and disposed of them at a loss in various ways. Some potatoes were sold for 21 cents per 100 pounds for use in making industrial alcohol. Farmers, however, were allowed to buy surplus potatoes at only 1 cent per 100 pounds for livestock feed. Others were used for making potato flour for relief distribution in Germany. Others were sold at a low price for conversion into starch or for dehydration. Some were given away free for use of public or charitable institutions, and many spoiled when no use could be found for them.

As a result of government pressure, the acreage devoted to potatoes dropped steadily from 3,350,000 in 1943 to 2,100,000 in 1948. However, the farmers raised the average yield per acre from 139 bushels in the 1937 to 1946 period to 186 bushels in 1948 by using better seeds, better methods of disease and pest control, and more machinery. As a result the output of potatoes remained about as large as it was before the surplus purchasing program began, and the government each year continued to buy potatoes to hold up the price. The high support price merely gave the farmers an added incentive to produce more potatoes.

Critics of price supports make several telling points in connection with adoption of parity as a national program:

1. It is charged that the parity principle impedes needed adjustments in agricultural production. Shifts in diets or increased productivity may result in the appearance of surpluses. With prices supported at high levels, the farmer keeps turning out large volumes of these products. Without a price support program, the production might be so unprofitable that the surplus would disappear as the farmer turned his attention to other commodities.

2. It is charged that the parity program restricts commercial outlets by keeping prices high, and thereby causes the accumulation of excessive stocks of nonperishable commodities.

3. It is charged that the parity program may, and has, meant substantial subsidies to agriculture during the periods of prosperity when normal price relationships have changed, due to technological factors, shifts in demand, or changes in the cost of production. For example, the parity base period, 1909–1914, was before mechanization in agriculture had gone far. Since that time, the unit cost of production of many farm

crops has fallen as new and better methods have been adopted. As a result, a decline in the prices of agricultural products would be a normal and desirable development.

Dr. Theodore W. Schultz has aptly summarized the case against the use of price supports to provide income protection for farmers: If support prices are set sufficiently low to clear the market, they will afford little or no income protection during a major depression; and if they are set high enough to maintain the income from farming at some acceptable minimum, they will clog seriously the channels of trade.

Secretary of Agriculture Brannan has proposed that the farmer's income, rather than the prices of his products, be supported. His plan would guarantee income for providers of perishable products while continuing price suports for basic nonperishable commodities such as cereals. The proposal met with both commendation and criticism. However, it was not entirely new. A Committee of Redefinition of Parity of the American Farm Economic Association suggested several years ago that the concept of parity be applied to income rather than to price.

Various methods of supporting farm income could be devised. For example, a formula based on income could establish a per capita income for farmers which would bear the same relationship to per capita nonagricultural income as that which existed in the most recent normal peacetime period of high production and employment. Whenever farm income from sale of agricultural products fell below this level, the government would make up the difference through payments to the farmer. This means that the government would pay direct subsidies to the farmer instead of supporting the prices of agricultural products. Prices of individual farm commodities could then be determined by supply and demand.

The proposal to support farm incomes instead of prices had won support even before Secretary Brannan made his proposals. For example, a version of this plan was endorsed by the resolutions committee of the CIO at a national convention of that labor organization. It is easy to understand why labor should go along with such a plan to aid the farmer. Industrial workers want low farm prices but also need farm aid in support of favorable labor legislation. Here is a method to get both high farm incomes and low farm prices with the taxpayer footing the bill.

Elasticity of demand for agricultural products. In studying the behavior of farm prices, the student must keep in mind the fact that the elasticity of demand for most farm products is very low. Within limits, consumption does not increase or decrease substantially because of moderate price fluctuations. This means that a larger output of a particular commodity can only be sold if the price is reduced by a greater than proportional amount. On the other hand, prices will rise more than in proportion if supplies are restricted, either because of short crops or because of heavy exports. Thus, the swings in farm prices are likely to be great, and the farmer actually may receive more for a small crop than for a large one.

During and after the Second World War supplies available on the United States domestic market were reduced by large exports, particularly of certain basic crops like cereals. Demand was great, however, due in part to high incomes. As a result, prices climbed to record levels for some commodities.

The problem of soil conservation. Considerable alarm has been expressed in recent years over the failure of all American farmers to adopt the soil conservation measures necessary to ensure that United States agriculture would continue to be as productive in the future as it has been in the past. It has been estimated that soil erosion, resulting from wind, rain, improper drainage, and inept cultivation, means the loss of 3 billion tons of topsoil a year. In Iroquois County, Illinois, for example, there were 9 inches of topsoil not so many years ago. Now there are only 6. If this should go on, the United States eventually would become a wind-blown waste, it has been contended.

The potential seriousness of the soil-erosion problem was expressed by Dr. H. H. Bennett, Chief of the United States Soil Conservation Service, in these comments: "Soil erosion is probably a greater threat to peace than the atomic bomb. . . . Modern soil conservation is the prevention, control, or correction of all causes of soil decline. . . . Erosion outranks all other causes of malnutrition, hunger, and famine—which are prime contributors to disturbance of world peace and goodwill."

State, Federal, and private groups have, however, become alert to this problem, and efforts are being made to educate the farmer on the improved methods which will prevent further deterioration of our agricultural resources. It has been difficult to convince some farmers of the need for such methods. They point out that the output of principal crops

per acre has been rising, not falling as you would expect if our soil was being mined as is contended by those who advocate the conservation program. The truth of the matter is that mechanization, better seeds, and better methods have often concealed the effects of soil deterioration where it has been allowed to occur. As a result, the growing destruction of our agricultural plant has not always been evident except where farm lands have become visibly eroded. Eventually, however, this mining of our soil will overcome the better methods if allowed to continue. The individual farmer can do much to cope with land destruction through such devices as contour plowing and the adoption of soil-building techniques. In addition, cooperative action involving whole districts, or even entire regions, is required.

The organization of soil-conservation districts is one method that has been adopted to combat destruction of our land. Recently there were 1,750 soil-conservation districts in the United States, with 4 million farmers participating. These districts are self-formed. The members agree to take care of the soil, and are given instruction by the United States Soil Conservation Service, by state universities, and by other agencies. Slightly more than half the farm land of the United States is subject to soil-erosion control, and is now in soil-conservation districts.

Methods of soil conservation can be said to fit into two categories. One represents soil-saving by mechanical means. It calls for terracing, contour plowing, grassed waterways, and other methods of preventing the soil from being carried away by water and wind. The other represents soil restoration. It consists of the use of fertilizers, restoration of organic matter, crop rotation, and other methods of soil building.

This fact stands out in regard to the problem of soil destruction: We now have the knowledge to arrest erosion completely, and floods and water losses to a very great extent. We have learned how to canalize and turn to good use our violent and sometimes excessive rainfall. Never before has mankind been better equipped to cope with land destruction. Historians attribute the downfall of whole civilizations to wastage of land resources. That need not happen to us.

The problem of farm tenancy. The prosperity of the Second World War period brought a decrease in farm tenancy, after a rise in the 1920's and 1930's, according to the Department of Agriculture. Only a third of all farms in 1945 were operated by tenants, as compared with nearly

two-fifths in 1920. During the early postwar years, tenancy decreased still more in many areas.

The problem of farm tenancy has both social and economic aspects. Political stability is best promoted when by far the larger number of farm families own their own land. They have a stake in the social order. Corruption and waste in all layers of government will be fought by them because it affects their taxes and thus hits directly at their pocketbooks. Their sense of permanency encourages conservation and soil-building practices. The tenant, on the other hand, knows that he probably will not remain on a particular plot of ground. He is naturally most interested in producing all he can before he moves to another plot, regardless of the long-term effects on the land.

As the population of any nation grows, the problem of tenancy develops. Eventually there is not enough land for every family. Mechanization and the increase in size of farms tend to displace families from farm ownership. It should be pointed out, however, that some farm tenants retain that status by preference. They prefer to devote their personal resources to acquisition of machinery instead of land. They become specialists in the production of a particularly commodity. By this procedure they hope to maximize their incomes. It also should be added that tenancy provides a way for farm families to acquire the stake necessary to purchase their own land.

Migration of farm workers. Earlier in the chapter data were given in regard to changes in the rural population over a span of time. Further discussion is desirable in regard to the migration between rural and urban areas because of the impact such movements have on our entire economy.

As was indicated, the rural areas have been declining in population relative to the cities and towns. This means that an increasing percentage of our people have been residing in urban areas and a smaller percentage in rural areas. This is the long-term trend. However, the net movement of people from farm to town or from town to farm will vary with the phases of the business cycle.

During periods of prosperity, the movement from rural areas to cities and towns has always been accelerated. For example, during the prosperous 1920's the movement from the farm exceeded 2,000,000 persons a year. It dropped to minor proportions during the years of the great

depression. In fact, in 1930, 1931, and 1932, more people moved back to the farms than left the farms for the city.

In recent years the flow of population toward the major industrial areas has been slowed by the trend toward decentralization of industry. As more manufacturing plants have been located in small towns, industrial employees have been afforded an oportunity to acquire a few acres of land and do some part-time farming. The decentralization of industry has been hastened in the postwar period, although it was evident as early as the 1920's.

A number of reasons can be cited to explain the long-run movement of population away from the rural areas. Young people are attracted to the cities by greater economic opportunity. Increasing mechanization of agriculture means that fewer workers are needed on the farm. In some areas of the United States, depletion of soil fertility has made land unfit to support the population it formerly could. In other cases, devastation caused by drought, pests, and disease has forced an exodus of population from certain areas. For example, the boll weevil caused a heavy migration during the 1920's from the rural regions of Georgia and South Carolina. Another example is the migration caused by the Dust Bowl period in the Great Plains states in the 1930's.

As more individuals leave the farms and move to the cities, problems are created for both agriculture and industry. Workers can be absorbed during booms but not during depressions. The arrival of more individuals in the cities and towns necessitates the construction of more housing, schools, and public utilities. On the other hand, the movement away from the farms deprives rural areas of their most energetic entrepreneurs and workers. In general, the rural areas have subsidized the urban areas with a wealth of human resources. Such subsidization probably is inevitable because of changing technology both on the farm and in the city, although it is not always certain that the persons concerned have improved their way of life. Many jobs have naturally shifted away from the farm to the urban areas. For example, labor formerly employed in cutting ice from ponds, now is in the city making refrigerators. Labor formerly engaged in the butchering and curing of meat on the farm now is employed in the packing house.

The marked shift in population from farms to cities during the war and early postwar period caused considerable concern among merchants and manufacturers who depend on sales to farmers. Farm popu-

lation declined 9.3 per cent from 1940 to 1949. For sellers of certain consumers goods, this meant a shrinkage of their markets. There were offsetting factors, however. Farms with fewer people needed more labor-saving devices and more power equipment. The spread of rural electrification offered new markets for appliances, and many other items requiring electricity.

The problem of land utilization. Proper utilization of land resources is one of the major long-term problems of American agriculture. For example, some land is fit only for grazing and should not be used as crop land. During the Second World War and the early postwar period when grain prices were high, certain land in the Great Plains states was plowed up for production of wheat instead of being retained for grazing. There were predictions that this would hasten the return of the Dust Bowl during the next prolonged drought.

Another aspect of land utilization is the discovery of new and more profitable uses for land through the introduction of new crops. An example is the soy bean, which was introduced into the United States only a few decades ago and now has become a profitable source of income for Middle Western farmers. Still another example of better land utilization has been the diversification of southern agriculture and the subsequent lesser dependence upon cotton.

Machinery has in a large measure made better utilization of land possible in the United States. We already have discussed the revolution in agriculture brought by mechanization. Shifts in the geographic centers of certain branches of agriculture to the advantage of our entire economy have resulted from the development of machinery. Examples are the movement of the wheat belt from the Middle West to the prairie states and the cotton belt from the Southeast to the Southwest. In fact, the movement of agriculture as a whole further toward the west can be attributed in part to the greater use of machinery. Farm machinery was required to convert the vast wilderness of the plains states into an important source of food supply for the United States and the rest of the world.

Social and political implications of price changes. A great deal has been said in this chapter about the prices of agricultural products. It remains, however, to point out that the structure of American agriculture makes the prices of farm products of great public concern.

Demand for farm products, both food and fiber, is in general inelastic.

Hence prices fluctuate over wide ranges. For example, the price of farm products more than doubled in both the First and Second World War periods. On the other hand, the prices of farm products in 1932 fell to less than half their levels of the late 1920's. We already have pointed out that, as a result of extreme price fluctuations over a short period of time, farmers actually may receive more dollars for a small crop than for a large one.

Not only are farm prices subject to wide variation, but falling prices do not always reduce production as is the case with most industrial products. The effect of declining prices may be merely to encourage the farmer to work harder and produce more in an attempt to offset the fall in his income. The instability of agriculture, plus the political power of the farming states, goes far toward explaining the effort to secure government aid in supporting the prices of farm products.

The shift of farmers away from their traditional Republican status in the 1948 election illustrated the complications introduced into American agriculture by the economic and political developments of recent decades. The swing of farmers from Mr. Dewey to Mr. Truman was enough to give Democrats their narrow margin of victory. Why did farmers switch their traditional allegiance? Political observers said five elements were responsible: (1) resentment over limitations placed by a Republican Congress on price-supporting loans, which had been changed from full 90 per cent of parity to a sliding scale ranging from 60 to 90 per cent; (2) reduction by a Republican Congress of soil-conservation payments; (3) a belief that the Democrats had contributed to farm prosperity in recent years; (4) the supposition that Mr. Truman might do more for the farmer than Mr. Dewey; (5) fear over the future as prices declined in 1948, and revived tragic memories of the depression years of the 1930's. Thus farmers wanted to keep in power the political party they believed would be most likely to continue the heavy subsidies which agriculture has received from the remainder of the economy. The future of agricultural prices appears closely intertwined with political pressures.

Another point should be made in regard to agricultural prices. The cost of living is determined in large part by outlays for food and textile fibers. If farm prices are held up at artificially high levels by government, a drive for higher wages can be expected from urban workers. This

pushes upward the prices of manufactured products and, under the parity principle which assures the buying power of the farmer's dollar, means still higher prices for the things the farmer produces. Thus a spiral of inflation tends to be created. Those with fixed incomes have their buying power reduced. Foreign markets are endangered by rising domestic prices. A great many complications arise, of which these are merely examples.

Conclusions

Our farm problem is not easy to solve. As we have seen, there is actually a whole bundle of farm problems that are closely intertwined with politics, sociology, and economics. They have international implications. If we try to protect the farmer from extreme price declines by a Federal price-support program, the Treasury must be prepared to make huge outlays. This, of course, means that the cost of a price-support program must be collected from the nation's taxpayers. On the other hand, during boom periods the prices of food and textile fibers tend to rise so high that the power of the urban consumer to buy commodities other than food and clothing is impaired. The cost structure of our whole economy is pushed upward. The inelasticity of demand for agricultural commodities results in extreme fluctuations of prices.

Some of these price changes are due to weather conditions, and hence no easy remedy is at hand except to develop better and hardier plants which will resist drought and temperature extremes. Despite this, we can say that the best way to solve the problem of agriculture is first to solve the problem of the business cycle. High industrial employment brings better markets for the farmer, just as prosperity in the rural areas results in greater sales opportunities for manufacturers. These two segments of the American economy are closely interrelated; one cannot be prosperous for long unless the other also is prosperous.

However, artificially high prices for farm products create problems for the nonagricultural segments of our economy. It appears unlikely that the American taxpayer will be willing to pay for the purchase of surplus farm commodities on a large scale for long. The experience with potatoes has dramatized the cost of a farm-support program. It is certain to be pointed out that a price-support program based on 1909 to 1914, which was before the full flower of the technological revolution in agri-

culture, needs careful consideration. Since that time, the developments in agriculture have tended to reduce costs of production just as mass production methods have tended to lower manufacturing costs.

Our farm problem, well concealed during wartime prosperity, merits consideration entirely free from political pressures. Any solution, however, must take into consideration sociological as well as economic factors. We must also consider the effect on our export markets of high price supports for our agricultural products. There have been indications recently that a long-term national policy might evolve. Such a policy must take into consideration the preservation of our soil resources, the best possible use of land resources, and the interests of both farmer and urban dweller.

We might test whatever policy we evolve by asking two questions formulated by Professor L. I. Norton as appropriate for testing a long-term agricultural policy:

1. Will it tend to encourage maximum economic output of the commodities which the world's consumers indicate they want?

2. Will it contribute to general economic and price stability, without which the farmers of the world cannot prosper and will not provide maximum output?

We have noted recent discussions regarding the ability of the world to feed its growing population. On one hand the neo-Malthusians contend that the people of the world are destined to a declining standard of living due to increasing numbers and wastage of land resources. Others claim that the situation is not so serious as the neo-Malthusians say, but that improved agricultural methods are necessary if our standard of living is to be maintained. This latter point of view seems best borne out by the evidence.

Review Questions

1. List some of the developments affecting American agriculture in the last two generations.

2. Why do we say that American agriculture has gone through a pauper-to-prince cycle during this period?

3. How do the problems of agriculture relate to the other major problems of the American economy?

4. How large is American agriculture in relation to the remainder of our economy, in terms of contribution to national income? How has agriculture been able to maintain its relative position?

5. What are the long-term factors affecting American agriculture?

6. Summarize the controversy created by neo-Malthusianism.

7. What are some of the recent developments in American agriculture?

8. Describe briefly the revolution in American agriculture.

9. Summarize the important changes which have taken place in southern agriculture.

10. What changes took place in American agriculture in the period preceding the Second World War?

11. What is meant by parity? How is the principle applied to the support of farm prices?

12. What arguments can you suggest for and against the support of agricultural prices?

13. What suggestions have been made for changing our price-support program?

14. Discuss briefly the problem of soil conservation.

15. Discuss briefly the problem of land utilization.

16. Explain the repercussions of farm prices on the remainder of the American economy.

Problems

1. List all the arguments you can for and against government subsidies to agriculture. Is the government more obligated to subsidize agriculture than any other industry? If you answer in the negative, why has the agricultural price-support program been accepted by Congress?

2. Tabulate all the ways in which mechanization has affected American agriculture. Should the net effect of mechanization be to increase or decrease the costs of producing agricultural commodities? In what ways has mechanization changed the farmer's way of life? Have these changes been desirable or undesirable?

3. Do you believe that the people of the world face a declining standard of living because of increasing population? What developments might increase or decrease the likelihood of this occurring? What steps might an overpopulated country take to raise living standards?

4. Debate the relative merits of price supports and income guarantees for the farmer.

Suggested Readings

Bye, Raymond T., and William W. Hewett: "Applied Economics," F. S. Crofts & Co., New York, 1947, Chap. 20.

Fairchild, Fred Rogers, Edgar Stevenson Furniss, and Norman Sydney Buck: "Economics," The Macmillan Company, New York, 1948, Chap. 35.

Patterson, S. Howard, and Karl W. H. Scholz: "Economic Problems of Modern Life," McGraw-Hill Book Company, Inc., New York, 1948, Chap. 20.

Schultz, Theodore W.: "Agriculture in an Unstable Economy," McGraw-Hill Book Company, Inc., New York, 1945, Chaps. 2, 8.

20. Economic Planning

So far this book has dealt only with the problems that arise in a free-enterprise system. In suggesting solutions for these problems, it has been assumed that the system of free enterprise is desirable, and that it should be continued. Because of this assumption, those solutions have been favored which would impose as few limitations as possible upon property and contract rights, and upon the economic freedom of individuals. We therefore considered monetary controls, the use of tax, debt, and fiscal policies, and the enforcement of competition as basic regulatory measures to keep the economic system on an even keel. In addition, we pointed out that under some conditions it is necessary to give special aid to certain industries. The methods of giving aid, however, were examined critically. With the right kinds of control, it was assumed that the system of free enterprise could be so operated as to achieve the goals of economic stability and progress.

Proposals for modifying or abandoning free enterprise. In spite of the advantages of a free-enterprise system, many of our economic problems have proved very difficult to solve. This has led some critics to insist that these problems can never be solved unless—and until—the free-enterprise system is greatly modified, or even abandoned. These critics maintain that the economy has become so complex that it is necessary for the state to take firm control. They insist that the failures of government regulation have resulted primarily from piecemeal legislation which has caused us to proceed in one direction in solving one problem, and in a different direction in solving another. They note that such conflicts of policy cause waste, duplication of effort, and confusion. For example, because of the failure of the government to adopt a definite policy, the Treasury has at times taken measures which would expand bank credit when the Federal Reserve Board has been attempting to contract it.

Tax, debt, and fiscal policies often operate to nullify each other. Even in those rare cases when a political party presents a broad program of reform, most of it is never carried out after the party comes into power. Furthermore, even those parts of the program which are adopted may be abandoned, at least in part, by a later administration. In the past, we have had such programs as Theodore Roosevelt's "Square Deal," Woodrow Wilson's "New Freedom," Franklin Roosevelt's "New Deal," and Harry Truman's "Fair Deal." None of these programs, however, was actually carried out as originally planned.

This failure to carry out broad programs of reform is not the only criticism of our way of determining government policy. Critics maintain that when such programs are put forward, they are not properly integrated, for they generally represent the demands of special pressure groups upon whom the party must rely to win elections. As a result, every such program contains many contradictory policies. For example, the Fair Deal program is designed to raise agricultural prices to aid the farmer, but to lower them for the consumer. Wages are to be increased to aid labor, while at the same time the prices of industrial goods are to be reduced. Taxes are to be increased to stop inflation, but government spending is also to be increased to prevent deflation.

In view of these inconsistencies, some critics of our free-enterprise system maintain that the time has come to modify our economy by concentrating all controls in a centralized agency under some kind of general plan. Centralizing economic controls is, then, one type of planning which has been proposed for solving our many economic problems. Such planning would, of course, be a long step in the direction of socialism. Nevertheless, there are those who believe that much centralized planning would be possible without completely abandoning a free-enterprise system.

Not all critics of our economy, however, agree that this type of centralized economic planning is the final answer. Some say that our system must also be modified in other ways. However, they fear too much government control. One group advocates a great development of consumer cooperatives. It insists that many of our problems arise because ownership of industries is too narrowly held. Under these conditions, those who are responsible for the success of an industry, namely, the consumers, do not share in its profits. They believe that if industrial

ownership were placed in the hands of cooperatives, many of our problems would be solved.

There is a third group of critics of free enterprise which has some followers. This group maintains that the first step in solving our problems is to abandon our present economic system and adopt a new system based on some over-all economic plan under the direction of the government. However, there is little agreement as to precisely what kind of economic order should take the place of our present one. Most of the systems proposed represent some type of socialism or collectivism, because they involve direct government control over production.

Our analysis to this point indicates that many critics of our economy advocate a greater degree of integration of all government policies into some sort of plan. This basic difference, however, is found. Some would seek to centralize government controls and yet maintain a system of free enterprise. These critics believe that it is essential to preserve a large measure of individual liberty even though more control is given to the government. Others, however, would abandon free enterprise on the ground that it is incompatible with centralized economic planning. Either, they say, there can be no plan, or the system must be subjected to an all-inclusive economic plan.

It is the purpose of this chapter to examine these points of view. In it we shall try to determine what problems would arise if our system of free enterprise should be severely modified by subjecting it to a general plan, or if it should be abandoned by the adoption of some form of collectivism. One question to be considered is, *Will a modification or abandonment of our system solve all of our problems, or will such action create other and, perhaps, greater problems?* A more specific question should also be kept in mind, namely, *Can we achieve greater stability and progress under some other kind of economic system?*

Individual Planning

Before the points of view just stated are discussed, some attention should be given to the arguments of those who believe that our system of free enterprise needs little, if any, modification. This group maintains that critics who talk about "planning" are not clear as to what they mean. There are many kinds of plans, ranging from those which every individual must make, to the completely centralized national planning

employed by the Russian communists. Since the range of planning is so broad, planners should view our present system carefully to determine whether a greater amount of centralized planning would really be desirable.

Many proponents of the system of free enterprise maintain that progress can be made only if each individual is free, within broad limits, to plan his own economic destiny. They believe that most of our problems will be solved if property and contract rights are respected and if controls are limited to protecting and enlarging individual freedom. This group insists that many of the problems we now face are the result of unwise government controls. They would, therefore, abandon or modify many present controls.

This group further maintains that those who insist on more government controls do not realize that each individual can plan for himself better than the government can do it for him. They point out that our system of free enterprise involves much planning, because under this system individuals make their own plans. For example, many citizens are planning their careers. In addition, every businessman must plan, for he must determine whether to rent, or buy, or build a place of business, where to locate it, what to make or sell, and how large an establishment to operate. In fact, many businesses are so complicated that plans must be projected fifty or even seventy-five years into the future. The system of free enterprise is, therefore, based on planning, but there are hundreds of thousands or even millions of plans, each directed toward some limited objective, rather than one master plan intended to solve all problems of economic welfare.

Naturally, where so many plans are in existence there is bound to be some duplication, conflict, and waste. Also, individuals or corporation boards may not be fully acquainted with all of the factors necessary to make intelligent plans. Wherever objectives or purposes vary, planning by some groups may bring conflicts with other groups. Individuals often become extremely optimistic, and expand their operations more than conditions warrant. Moreover, in a complex society some individuals are so dependent upon the plans of others that they find independent planning almost impossible. However, in spite of these difficulties the proponents of our present system insist that individual freedom and individual planning represent the only road to the achievement of our economic goals.

Advantages of individual planning. Those who stress the point that individual planning characterizes a free-enterprise system insist that such planning tends to produce the greatest progress. Any individual, for example, may discover a new product or a new process. If he is energetic and resourceful, he can begin to produce it. He makes his plans in the hope of earning a profit. However, as a result of his invention and his initiative the world becomes a better place in which to live. Individual planning thus enhances the general welfare.

A second advantage of individual planning lies in the ability of any single individual to change his plans without disrupting the whole economy or even an important sector thereof. This provides flexibility in the economy. Individual plans can be made, changed, or adjusted to new conditions, with a facility that would not be possible under centralized government planning. Moreover, a mistake by the individual is not serious for society. On the other hand, a mistake by a central planning authority might disrupt the whole economy.

Finally, individual planning generally places the responsibility for his actions upon the individual citizen, and forces him to accept the results of those actions. When individuals are able in a large measure to determine their destinies, they weigh the probable results of their actions. Their self-interest induces them to plan very carefully.

Some limitations of individual planning. Though individual planning may serve the best interests of society, it does not always do so. In a system of free enterprise the market provides the test of the economic success or failure of any individual plan. However, the criterion in the market is the prices received for goods and the profits made. The market does not always tell us whether the product or service is beneficial to the nation in the long run. It only tells us whether it can be sold at a satisfactory price. The gambling industry, for example, may take in larger revenues than such worth-while services as education, religion, or music. Thus, in the absence of any restrictions but those of the market, some individuals or firms can become economically strong even if they do great harm to society.

Critics, further, argue that under present conditions much competition is destructive, and leads to waste and distress. They also maintain that our present economy is so complex that individual planning results in great confusion. Each enterprise, they point out, makes its own plans, often with little regard for the plans being made by others. The business-

men who make these plans, they argue, often take a short-run rather than a long-run point of view in attacking problems. As a result, they often change their plans quickly, and this contributes to economic instability. Society is plagued by a succession of booms and depressions. These, it is said, create so many problems that unless we resort to a greater amount of centralized planning the entire system will collapse.

The foregoing are serious indictments of our economy, and some of them have not been answered adequately by those who believe in the merits of individual or private planning. Two answers, however, have been given to these indictments. First, it is said that many of our problems are caused by noneconomic factors over which we can have little control. At present we seem unable to prevent periodic wars, and these would disrupt economic activity under any system. If we could eliminate wars, our free-enterprise economy would operate much more smoothly. Second, it is said that many of our economic problems arise from the fact that the government interferes too much, and unwisely, with individual plans. According to this point of view, if government controls were greatly relaxed, our economy would be more flexible and economic maladjustments would disappear much more quickly.

However, most of those who believe in individual planning agree that as the economy becomes more complex some additional government controls are likely to be required. They say that it is not so much the number of controls that causes difficulties, as it is the nature of these controls. They argue that troublesome problems are certain to arise when economic controls are badly designed, or when they are intended to achieve objectives which are political rather than economic.

Partial Planning

We have noted that many problems have not been solved under our present system of free enterprise. We have also studied some proposals for solving these problems under the present system. We shall now turn our attention to the remedies proposed by those who advocate a "planned economy."

Before the proposals of the economic planners are discussed we must understand that there are many degrees of planning. "Planners" themselves do not agree as to precisely what economic planning means. For example, there are many who argue that our present economic system

would function more successfully if the various controls now being used were properly integrated so as to prevent duplication of effort and the use of inconsistent policies. Planners of this type would modify our system only to the extent of integrating and improving the controls now in existence. This group may be called "partial planners," for they would make no attempt to bring the entire economy under a single master plan.

A second group may also be classified as partial planners. It includes those who believe that our problems can be solved only if the government owns and operates certain basic industries. Here, again, there is great diversity of opinion. The question is, How far should government ownership be extended? Some groups would advocate ownership of the public utilities only; others would include many natural resources; still others would extend government ownership to such basic industries as steel and transportation. In every case, however, these advocates of an extension of government ownership would limit the government to certain basic industries. Some steps have been taken in this direction. In the United States many local government units own and operate certain utilities, and our Federal government operates such great projects as the Tennessee Valley Authority, and the Hoover, Bonneville, and Grand Coulee dams.

A third group of partial planners advocates the organization of each industry in a manner that would permit greater coordination. Controls would be partly voluntary and partly compulsory. Thus, in the 1930's, the National Industrial Recovery Act was passed. This Act allowed the firms in each industry to set up a code. Once a code was accepted by a certain percentage of the industry, it became binding on all firms. These codes were sanctioned by the government, which saw to it that certain objectives were included. Here was a system which seemed to coordinate private ownership and operation with certain social goals. To a large degree, the present farm, coal, and milk programs may be classified as partial planning of this type.

It will be observed that each group of partial planners seeks to maintain our system of free enterprise, but it does not hesitate to modify the system whenever such action appears desirable. The outstanding characteristic, then, of those who believe in partial planning is that they would modify our economy where necessary, while at the same time seeking to preserve a great degree of individual economic freedom.

Advantages and disadvantages of partial planning. Proponents of partial planning maintain that their proposals would abolish most of the faults of free enterprise while retaining its advantages. Since many areas of the economy would remain uncontrolled, they argue that the economy as a whole would still retain much of its flexibility.

Critics of partial planning insist that it is worse than no planning. They argue that either there is a plan, or there is not. If there is one, then all elements of the economy must be subjected to it, otherwise the goal cannot be achieved. They further point out that, while certain controls can be more closely integrated, this does not necessarily mean that such controls are a part of a general plan.

"General Planning" under Free Enterprise

Some critics of our economy insist that we must develop some kind of broad plan which will insure the efficient operation of our economy as a whole. They believe that it is possible to develop and apply such a plan without destroying our system of free enterprise. Those who hold this point of view we will call "general planners."

General planners agree with the partial planners that present controls must be integrated, and that some industries must be owned and operated by the government. But this, they say, is not enough. In addition, the government must exercise other types of control whenever necessary. Some would give the government power to place ceiling prices on certain commodities to protect consumers, and minimum prices on others to encourage production and increase employment. Nearly all general planners would have the government prepare to carry on a great public-works program, primarily for the purpose of stabilizing economic activity. For example, if it was feared that business was going to stagnate, the public authorities would see to it that a public spending program was instituted to offset a decrease in spending by the public. Most general planners would also make use of tax policy and bank credit controls in their attempts to achieve and maintain a high level of production and employment.

Policies of this type are now used to some extent by the government. Hence at first thought it would appear that there is little difference between partial and general planning. There are two outstanding differences. First, under general planning emphasis is placed on the

operation of the economy as a whole rather than on the problems of particular industries. Second, general planning requires giving the government much more power than does partial planning.

General planners insist that their policies do not represent any great modification of our present system. They point out that our nation is already committed to a large amount of government regulation of business. They call attention to the Employment Act of 1946. This Act places a general responsibility on the President and Congress to take such economic measures as may be necessary to maintain a high level of employment. It also creates a Council of Economic Advisers, whose duty it is to study economic trends and report to the President, who in turn reports to Congress.

In order to make clear the scope of the work of the Council of Economic Advisers, we shall mention some of the topics discussed in the publication of the Council entitled, "Economic Trends in 1948." This booklet covers pretty thoroughly economic conditions in the United States in the year named. It reports on employment, production, prices, wages, labor relations, profits, money and credit, consumer income, spending and saving, business investment and finance, housing, the international outlook, and government and state incomes and expenditures. It also considers the question of "goals" and "means of approaching them in 1949." It maintains that the one great objective of the Employment Act of 1946 is to "maximize employment, production and purchasing power." In making proposals for approaching these goals it emphasizes the need for adjusting prices, wages, and other economic factors to changing conditions. A statement of the conclusions reached by the Council will be of interest as indicating how general planning of this type might seek to achieve desired goals. The Council states:

> The upward adjustment of consumer incomes relative to prices will be essential in the future to establish suitable patterns of balanced economic growth. It is important that these adjustments be made. But we cannot be sure that these adjustments alone will insure an increase in consumption, and the maintenance of a high level of activity. Decreases in prices or increases in costs may lead to a recession if they occur at a time when markets are weak and aggregate demand is shrinking. Therefore it is essential that, during threatening times, adequate support be given to demand while fundamental adjustments are going on. Such support may be provided by stepping up those basic governmental programs which are essential to economic growth.

For the purpose of supporting demand when necessary, the report suggests such programs as extending recreation and health facilities, providing better educational opportunities, developing transportation, providing housing, developing the nation's resources, and financing business expansion. It contends that we cannot rely on automatic economic adjustments. In consequence, there may be times when the measures suggested above must be supplemented by direct control over production policies, prices, and the national income. We have here some of the broad outlines of a program of general economic planning. If adopted and fully implemented, such a program would substantially modify our system of free enterprise.

General planners, however, are not satisfied with present arrangements for putting plans into effect. The Council of Economic Advisers has advisory powers only. It has therefore been suggested that an economic stability act be passed to give the President authority to take positive action whenever critical economic conditions develop. The main purpose of the act would be to give the President power to regulate production, prices, and wages whenever in his judgment such regulation is necessary. General planners evidently do not fear centralized controls. In fact, they insist that only by granting the government more power can our economic problems be solved. The main recommendations put forward by general planners are (1) to centralize all planning in one agency, and (2) to give this agency sufficient power to direct the economy.

The demand for more power by general planners raises a serious problem for them. Since they insist that free enterprise be retained, they are hard put to decide at just what point controls are to be limited. They believe, however, that broader government powers are not incompatible with free enterprise. One writer states: "If we are to preserve democracy, it is up to our generation, in the economic realm, to commit ourselves to implementing Lincoln's philosophy of government: 'The legitimate object of government is to do for a community of people whatever they need to have done, but cannot do at all, or cannot do so well in their separate and individual capacities.'" [1]

[1] ROSENFARB, JOSEPH, "Freedom and the Administrative State," Harper & Brothers, New York, 1948, p. XIII. Also see LAUTERBACH, ALBERT, "Economic Security and Individual Freedom," Cornell University Press, Ithaca, N.Y., 1948.

Possible advantages of general planning. If general planning could fulfill the expectations of its advocates, it would indeed promote the public welfare. Unemployment would be reduced to a minimum, and security and stability would be established. At the same time the advantages of free enterprise would be largely retained, for only those basic decisions which vitally affect the economy as a whole would be made by a committee of planners. If such a system of planning could produce the results claimed for it, it certainly would be advantageous for all nations which operate under a system of free enterprise. But would it produce these results? That is the question.

Disadvantages of general planning. The outstanding criticism of the proposals just presented is that society is not as mechanistic as proponents of planning assume. It would be easy to operate a general plan for a free-enterprise economy if those in control could be sure that every phase of the economy would respond in the manner desired. However, it might happen that the same policy would at one time cause one type of reaction in our economy and at another time a very different one. Suppose, for example, it is concluded that prices are too high. Assume, further, that the mechanism at the command of the planners is price control, and that in consequence the planners impose price ceilings. What will be the result? Under some conditions these ceilings may protect consumers by preventing producers from making excessive profits. Under other conditions they may cause a sharp curtailment of production by causing producers to suffer losses.

Critics often point to another major problem which confronts general planners. How can the planners make the public understand their objectives? Public cooperation is essential if planning is to succeed. However, individual interests often would have to be sacrificed to achieve social goals under a system of planning. In addition, any favorable results might be of a long-term nature. To achieve these long-term goals, sacrifices might be necessary in the short term, and the public is often reluctant to make short-term sacrifices. Finally, the line between general planning in a free-enterprise economy and socialistic or collectivist planning is a narrow one. Where is this line to be drawn? General planners insist on more power in order to be able to carry out their plans. Will there be any limit to the powers which they will ultimately demand?

General planners insist that an increase in centralized power need not destroy or change the system of free enterprise. They point to wartime

controls as an example of cooperation in achieving a common goal. They argue that if such cooperation is attained in time of war it can be achieved in time of peace. Critics, however, do not agree. They point out that in time of war, close cooperation is secured at a rather high price. Both capital and labor are given something in return for the sacrifices they are asked to make. Huge contracts may make management amenable to strict control. Overtime pay and higher hourly rates are often the price for labor compliance. The farmer is induced to produce more by the hope of securing increased prices, by subsidies, or even by guaranteed price floors.

However, in time of war some real personal sacrifices are made. These come in the form of military service, longer hours, higher taxes, and curtailed consumption. But these sacrifices are made in the name of patriotism. Even in time of war, when many incentives can be used to secure cooperation under central planning agencies, individuals often become weary. Black markets soon develop, strikes increase, quality deteriorates, and efficiency declines. When these disturbing factors assert themselves, there is only one recourse open to planners—they must enact additional laws. These laws, however, cause new irritations. And so, still more laws must be enacted. Under such conditions general planning would require a greater and greater expansion of power, and probably would lead to the ultimate destruction of private enterprise.

The arguments just presented show clearly that planning offers no easy solution for our problems. Those who criticize our present system would do well to look to the basic difficulties which confront all nations of the world. Most of our problems are not peculiar to free enterprise. Such factors as ignorance, prejudice, overpopulation, maldistribution of natural resources, and nationalism must all be taken into account when solutions are sought for our many problems.

All attempts at economic planning must take into account its effect upon individuals. Our American philosophy is based on the premise that individual freedom is a paramount consideration. To be sure, we recognize that the property and contract rights of individuals are not absolute. Even so, any modification of such rights must always be justified on the grounds that it is essential in order to protect the general welfare. To restrict individuals for any other reason would be to destroy our system.

Finally, the question of progress under planning must be considered. The danger under planning is that once a blueprint is drawn, it will be

adhered to rigidly, regardless of changing circumstances. The more extensive the plan, the greater the danger that it will make the economy as a whole inflexible. Since flexibility is necessary for progress, the danger is ever-present that the economy will stagnate under economic planning, even though the object of planning is to remedy obvious faults in the economy. In the long run, attempts at planning may create more problems than they solve.

Cooperatives as an alternative to economic planning. Some writers have proposed the development of consumer cooperatives as an alternative to economic planning that does not violate the principle of economic freedom. They believe that strong and well-developed cooperatives would remedy certain defects of our economic system. Consumer cooperatives represent what has been called a "middle way." They provide a system under which profits, instead of going to businessmen or investors, accrue to consumers. At the same time, cooperatives are private enterprises, since they are owned by those who patronize them rather than the state.

The success of consumer cooperatives in Sweden, where they are credited with breaking up several monopolies, is hailed by some as the answer to the problem of how to create an ideal economic system built on private ownership. It is sometimes insisted that cooperatives are so responsive to the needs of the people that they will solve most of our economic problems. This would make government intervention in business quite unnecessary. Some economists, however, seriously question this point of view. Professor Albert Lauterbach, for example, in his book "Economic Security and Individual Freedom," [2] insists that, "Whatever may be the merits of cooperatives in general, they can serve as a method of social control only to the extent that their management acts consistently in line with integrated national policy." He insists that the merits of cooperatives relate mainly to consumers' goods, and that in heavy industries the possibility of organizing cooperatives is extremely small.

Whatever may be the advantages and disadvantages of cooperatives as an alternative to planning, one point should be clearly understood. Both producers' and consumers' cooperatives are types of private business enterprise. Stock is issued, costs are incurred, prices must be charged

[2] LAUTERBACH, ALBERT, "Economic Security and Individual Freedom," Cornell University Press, Ithaca, N.Y., 1948, p. 93.

for goods, and profits or losses are realized. What, then, are the possible advantages of this form of business unit over others? Why is it sometimes argued that the development of cooperatives would make government planning unnecessary?

Advantages of cooperatives. Various advantages are claimed for consumer cooperatives. One outstanding advantage of the cooperative is that the common citizen becomes a part owner of the enterprises with which he transacts business. Such ownership is supposed to create an interest in the project and an understanding of the problems which must be faced. It is argued that if the average individual is made aware of the problems which must be solved, it is possible to get him to respond in such a manner that solutions can be worked out. A second advantage is that owners of stock in a cooperative receive dividends or other benefits, not in proportion to the amount of stock they own, but rather on the basis of sales or purchases of goods.[3] In many respects this is sound because those who deal with a company contribute to its success. Furthermore, the receipt of patronage dividends means that the profits which would ordinarily go to the private owners of a business are returned to the consumer. Cooperatives usually charge the same prices as other retailers, but any excess over cost is ultimately returned to the buyer. A third advantage is sometimes claimed for cooperatives. It is said that management, since it consists of hired employees, cannot hope to benefit by charging high prices or reducing quality. However, there is some question of whether members of cooperatives really do get better quality and lower prices than patrons of other stores. Competition in the retail field is keen, and this fact tends to force merchants to keep down prices and maintain quality in order to stay in business. Chain stores are notable for selling at low prices, and cooperatives do not attempt to undersell them. To be sure, the member of a cooperative receives patronage dividends, but these are usually very small. A fourth advantage claimed for cooperatives is that they can reduce costs by eliminating advertising. Since they have a loyal membership, advertising should be unnecessary. However, some of the educational activities of cooperatives are really a type of advertising.

If all production were in the hands of consumer cooperatives, they

[3] A limited and moderate dividend may be paid on stock. Beyond that benefits received by the individual member are proportionate to his sales or purchases.

might provide yet a fifth benefit. Many nonessential products might not be produced at all. Under the present system, a producer will engage in any business in which he has a chance to make a profit. Even though the product may be harmful, it will be produced as long as individuals will buy it. However, cooperatives attempt to educate their members. If cooperatives were formed in every field there might be much less production of undesirable products.

Disadvantages of cooperatives. Though the cooperative movement is built upon the ideal of individualism, and thus fits into a system of free enterprise, many cooperative leaders have a long way to go in educating themselves and their members as to the nature of efficient production, sound management, and good pricing policy. The success of cooperatives will depend on the intelligence and interest of their members, and on their success in obtaining efficient management. As cooperatives grow large, many members tend to lose interest and to become inactive. In seeking managers, cooperatives face the problem of salaries. Often they are unwilling to pay managerial salaries comparable to those offered by other types of business. The result is inefficient management and sometimes failure.

Another frequent disadvantage of cooperatives is unwillingness to take risks. If cooperative leaders will not take risks and carry on experiments which in some cases may cause losses, they will be able to make very little progress.

Economic Planning under Collectivism

Those who believe that every detail of our economy should be planned and controlled by a central authority are known as "collectivists." Collectivism is a system under which productive activities are carried on by government. However, collectivists differ considerably in their political philosophy and their economic ideals. In general they fall into three groups, namely, socialists, communists, and fascists. We must distinguish carefully between these groups.

Defined broadly, socialism is equivalent to collectivism. It describes any system which rejects private ownership and control of the means of production, and provides for government ownership or complete government control. However, the groups who call themselves socialists in Britain and the United States define socialism more narrowly. To them

socialism is a system under which the government would take over ownership of major industries only. It is also a system under which control of the government would remain in the hands of the people through free democratic elections.

Communism is a type of collectivism. As a social ideal it is a program whereby not only are the means of production and the control of industry given to society, but all income is allotted to labor. Wages are equal for all workers, or are proportionate to their needs. In the ideal communist state conventional types of money are not needed. Certain basic essentials are made free to all citizens. These may include housing, food, transportation, and fuel. Other commodities are bartered, or exchanged for coupons representing a certain amount of labor.

It can be seen that communism is based on the ideal that each individual shall be rewarded according to his needs instead of his contribution to production. Under socialism money would still be used, wages might be different for different groups, and individuals might own their own homes and other so-called unproductive possessions. It is possible that there would be private savings under socialism and that some interest might be paid. Moreover, some kinds of business might be carried on under private ownership. Under communism none of this would be true.

In practice fascist states and communist states have much in common. In theory, however, fascism and communism are very different. Communists insist that fascists are their natural enemies. This follows since for fascists the state embodies all their ideals. On the other hand, the communist insists that the state is only a necessary evil during the transition period from capitalism to real communism. Once communism has been established the state will wither, or remain only as an instrument through which the people cooperate to further their own interests. Under fascism, however, the state is a supreme and mystic entity which all must serve. The fascist state is also nationalistic, and is dominated by a small group of "superior" citizens. Instead of the state disappearing as fascism takes over, the state becomes ever stronger and more dominant.

With respect to the role played by the state, the various economic systems would theoretically line up somewhat as follows: fascism—the complete domination of all phases of life by the state; socialism—state ownership under the control of the people; capitalism—a system of free private enterprise in which the state merely keeps order and acts as a

kind of umpire; communism—the subordination of the state, and the common ownership of all means of production and distribution by the people. This places fascism and communism at the extreme opposite poles, with socialism and capitalism in between.

Let us now look at each system in more detail and see how it has worked in practice.

Fascism. We still have the lessons of fascism clearly before us. Fascism in Italy began under Mussolini in 1926. As a political system it was carefully organized to include a closely knit, well-trained group of party members who were admitted only after a careful examination. These members belonged first to local organizations. Then the local organizations were federated into provincial federations, which in turn sent representatives to a grand council.

From an economic point of view, fascism was primarily concerned with marshaling all of the economic forces of the nation to make a strong state. If necessary, fascists did not hesitate to take direct action such as fixing prices and wages, and prohibiting certain types of business. Although the government at times took over some businesses and operated them, in the main, fascism retained at least the forms of private ownership and operation. However, in the case of large enterprises the private owners had very little control over their properties.

In order to facilitate economic harmony all labor groups were organized into syndicates, or unions, and all employers were also organized. These groups were forced to bargain. Also, a National Council of Corporations was organized which was dominated by the political party, but which was supposed to act as an advisory body to the government in economic affairs. Sufficient has been said to indicate that fascism in Italy, which from the economic point of view had its counterpart later in Germany, was a good example of over-all economic planning. In Italy, for example, attempts were made to make the nation as self-sufficient economically as possible, especially in case of war. Under government direction, shipbuilding, transportation, and the heavy industries were promoted. Raw materials were accumulated, and industries were created to produce synthetic products.

From the point of view of building military power this highly centralized system of master planning was effective. It also brought economic advances, at least in the short run. Although workers' wages remained low, hours were shortened and employment was constant. To

some extent the real income of workers was raised by a policy of fixing prices. The propertied classes, however, suffered greatly, and many of the large private fortunes disappeared. Inequality in the distribution of income was somewhat reduced, and this may have been a social gain. However, the great evils of fascism were the substitution of dictatorship for freedom and democracy, and the exaltation of nationalism and war. Moreover, fascism in Italy forced upon a people with small resources a military machine which was so expensive that it more than absorbed any possible economic gains.

Fascism in Germany produced a similar result, except that with greater resources the leaders were able to create a more effective conomic and military organization.

It is clear that in terms of American ideals and traditions fascism is not a desirable form of economic planning. It emphasizes the state as an end in itself; it destroys the substance if not the forms of free enterprise; it involves dictatorship; and it glorifies military power and war. Some economic achievements were indeed evident. However, had the system not been destroyed by war, it might ultimately have collapsed from the weight of the bureaucracy which it created. The great lesson of fascism is that this kind of over-all planning is a poor substitute for a free-enterprise economy and democratic political institutions.

Socialism. It is difficult to evaluate socialism, since no country as yet has had sufficient experience with it. Socialism requires that a democratic government should take over industry, or at least the basic industries. The ultimate result of such action is still somewhat uncertain. In England, under a labor government, an attempt is now being made to create a socialized economy. The Bank of England, the mines, the railroads, and several other industries have been nationalized. To date the results of this action have not been too successful. Nationalization of the mines was followed by a series of strikes which crippled the nation. Evidently many miners assumed that the government had some magic power to raise wages, reduce hours of labor, increase production, and cut costs, all at the same time. To get "more for less" or "something for nothing" is very appealing. It is generally discovered, however, that even under governmental ownership and operation "sweat and toil and tears" still exist.

It is still much too early to pass final judgment upon socialism in Eng-

land.[4] Many of the problems that England now faces are the result of war rather than of socialism. Some of these problems the socialist government may be able to solve if it is given sufficient time.

Whatever the ultimate results of socialism in England or elsewhere, some of its limitations are pretty clear. First, serious economic problems still arise under socialism. Second, socialist leaders make many errors of judgment. Third, socialism causes bureaucracy to increase by leaps and bounds. Fourth, officials under socialism may be as corrupt as under any other economic system. Fifth, to carry out socialist plans the government is forced to enact strict laws which irritate the people. Finally, socialism cannot eliminate costs of production, and individual efficiency seems to be lowered as people come to feel that the government can do for them what they cannot do for themselves except by making irksome sacrifices.

Communism. On the basis of experience we cannot evaluate master planning under communism much better than under socialism. Russia, for example, is not a communist state as communism was conceived by the Bolshevik revolutionists. Rather, it is supposedly in a state of transition from capitalism to communism. The problems that are confronted are those connected with transition, and communists themselves look for a final solution only when the transition is completed. During the period of transition Russia is a socialist or collectivist state operating under a "dictatorship of the proletariat."

The "transitional" period, however, does not present a pretty picture,

[4] For an analysis of recent events in England under the labor government the reader is referred to "Ordeal by Planning," by John Jewkes, The Macmillan Company, New York, 1948.

Professor Jewkes maintains that individual freedom is being lost in England because Englishmen no longer are free to choose their occupations, to dispose of their incomes as they wish, or to acquire and hold property.

He emphasizes the fact that British planners have made major blunders, that industry is caught in a coil of regulations, and that the people are increasingly devoting themselves to evasion of the law and to black-market operations. Professor Jewkes maintains that liberal society in all of its aspects is being eaten away.

Professor Jewkes insists that the only way out is to return to a free price mechanism, but he warns that this will not be easy, for the more socialism is threatened with failure, the harder those in control will fight to make it successful at any cost.

The student should also read "The Road to Serfdom," by Friedrich Hayek, University of Chicago Press, Chicago, 1947.

nor does it forecast a bright future. As "communism" is now organized in Russia, it represents a complete centralization of authority in the hands of a small group who assume that they are the embodiment of ultimate and final truth. It is this group of leaders who are responsible for all economic planning. Under a State Planning Commission, created by the central government, there are regional planning commissions of various sorts. These groups prepare detailed schedules for every industry, as well as for agriculture, in order to carry out the various plans which have been adopted. Prior to the Second World War several all-inclusive economic plans were put into effect, namely, the five-year plans of 1928, of 1933, and of 1938.

We cannot judge the economic progress of Russia under these plans very accurately for several reasons. First, the data necessary to determine her progress have never been fully available, and just now Russia is hiding behind the "Iron Curtain." It appears that in the early years of communism some economic progress was made. Industrial production was increased, new industries were established, and the production of raw materials was expanded. On the basis of such beginnings it seemed that Russia might soon become a highly industrialized nation. The greatest obstacle, however, to judging the effectiveness of Russia's five-year plans is the extent to which they were disrupted by preparations for war, and, later, by the Second World War. In spite of considerable industrial progress standards of living remained low, and they are still very low, even though the war has been over for several years.

Even in prewar days the Russian plans did not progress smoothly. Production often lagged, for managers were afraid to make necessary changes without sanction from the political leaders. Much of the goods produced was of low quality. Since the workers were not educated to the use of machines, the machines soon wore out from lack of proper care and maintenance. Production costs, therefore, remained very high.

Since communism is dedicated to the idea that all the fruits of production should accrue to labor, it is interesting to see how this principle has been applied in Russia. At first, substantially equal wages were paid to all workers regardless of the kind of work done. This method, however, soon had to be abandoned, since it did not stimulate efficiency. In consequence, it was necessary to pay differential wages similar to those paid under capitalism. In many cases very high salaries were paid

to professional and managerial workers. Management controls, also, were changed in the interest of increasing production, and managerial authority was reestablished in industry to provide the necessary discipline.

In the beginning, strong labor unions were created, and these were practically given control over industry. When the equal-wage system broke down, and when management was given more control, the labor unions lost most of their power. Wages, meanwhile, had not increased to any great extent. While workers obtained security against unemployment, they had to work at terms set by the state, which was their only employer. To compensate for this loss of power, they received certain benefits to cover accident or sickness, maternity expenses, and child care. A certain amount of free education was also made available.

The whole program, however, has been extremely costly and, of course, the people pay the bill. By fixing money wages, assessing taxes, and determining the kinds of goods that can be produced, the leaders determine the share of income that accrues to the people and the share that goes to the state. Living standards are low, but we must remember that when the communists came into power Russia's resources were undeveloped, she was short of capital, and her people were not trained in industrial techniques.

As communism has actually been practiced in Russia, its defects are serious indeed. First, bureaucracy under communism leads as inevitably to dictatorship as it does under fascism. In this respect the two systems are identical. Second, communism seems to have fully as much trouble as capitalism in solving complex economic and social problems. In Russia, however, mistakes in policy are often blamed on those charged with carrying out policy. Frequently ruthless methods are used to punish those who are presumed to be responsible for failure. Third, while under communism no distinction is made because of race or color, the dignity and the rights of the individual are given little consideration. Man is not free either to think or to do as he likes. Fourth, communist planning has not given the Russian people even reasonably satisfactory standards of living, and it has reduced their freedom to choose the goods they want, and the way in which they wish to live.

Finally, the question still remains whether a dictatorship of the type which prevails in Russia can continue to rule without engaging in war with other countries in order to distract attention from its failures at

home and in order to retain its power. Whatever differences there may be in theory between communism and fascism, the Russian dictatorship is not very unlike the fascist dictatorships which prevailed in Italy and Germany.

Conclusions

Our survey of the controls which have been proposed to modify the free-enterprise system or to replace it altogether does not present a very hopeful picture. We have observed that no system is devoid of problems. In fact, it appears that "planning" often creates more problems than it cures.

In spite of the merits of some proposals for broad economic planning, they generally overlook the great complexities of our economic system and the immense difficulties involved in trying to plan it in any detail. They also tend to minimize the importance of personal freedom and individual initiative. Under them man would become more like a cog in a machine. Those who believe in the free-enterprise system could never tolerate such an existence. To be acceptable, economic planning must allow some freedom of action and some room for initiative. It must recognize that man does not live by bread alone, and that mere economic advancement cannot satisfy him for long.

"Planning" is, of course, a flexible word. Any attempt to solve a problem involves planned action of some kind. In one sense, then, this entire book has dealt with the subject of planning. In it the authors have proposed many kinds of positive action.

In earlier chapters we discussed proposals for solving the economic problems of a free-enterprise economy. Emphasis was placed on three basic ways of attacking these problems: first, the use of adequate monetary and credit controls; second, the use of taxation, government expenditures, and other fiscal controls; third, the enforcement of competition, and the maintenance of a certain plane of competition. We pointed out in each case how these solutions might, if they could be properly integrated and administered, solve the most serious problems confronting the free-enterprise system.

In addition, certain other measures were discussed which might aid in raising living standards, or which might contribute to economic security and stability. Thus, we pointed out the advantages of a more ade-

quate social-security program. Also we called attention to the problem of economic inequality, to the importance of developing wise wage and labor policies, to the need for aiding certain distressed industries, and to the desirability of expanding foreign trade. We insisted, however, that in every instance the methods used and the controls imposed should not destroy economic flexibility. It is of paramount importance that the economy be kept flexible so that it can adjust itself to changing conditions.

Special types of control may be necessary to meet temporary emergencies or to apply to industries in which competition is not practical. The regulation of our public utilities is a legitimate function of government in a free-enterprise system, because these utilities are natural monopolies. Also, in time of war, price controls, rationing, and subsidies may be necessary as temporary measures to meet an emergency. The government may also be able to make a free-enterprise economy work better by providing needed information for many types of business. The purpose is to present information which will allow the citizen to help himself.

A program like that just outlined need not unduly restrict free enterprise, nor need it restrict individual liberty to any serious degree. We must remember that liberty is not to be confused with license, and that society cannot exist unless the citizen accepts his full degree of responsibility. However, before a program like the one outlined can really become effective, certain great problems must be solved which are not primarily economic.

First, there is the problem of war. We are not making adequate progress in preventing war or threats of war. Too much of the output of our economy is being absorbed by the military establishment, and this greatly reduces our ability to increase standards of living.

Second, in many countries the growth of population is still a serious problem. The teeming millions in Asia and in some other parts of the world keep standards of living low in those areas, and may ultimately endanger standards of living in other countries. There is at present no assurance that without population checks standards of living can be raised perceptibly in those countries which are already greatly overcrowded.

Third, many radical reformers advocate that we completely scrap our

present system in order to solve quickly all our problems. However, analysis indicates that alternative systems like fascism, or communism, and perhaps even socialism, would lead to dictatorship. Further, they would not solve most of our old problems and would create many new ones.

Though the problems we face are difficult, there is reason to believe that we can make progress in solving them without destroying our system of free, private enterprise. It is too much, however, to expect a complete solution in one generation. We must proceed slowly, being sure that we are always moving in the right direction.

Students of economic trends must not be too much discouraged by the fact that we seem to make little progress in solving some problems. The over-all picture gives us reason to be optimistic. We have made great progress in the recent past, and there appears to be no reason that this progress should not continue.

Critics of our present system need the faith expressed by Mr. Herbert Hoover, who, on his seventy-fourth birthday, made a speech at his birthplace, West Branch, Iowa, on "The Meaning of America." He said:

> I have seen America in contrast with many nations and many races. My profession took me into many foreign lands under many types of government. I have worked with their great spiritual leaders and their great statesmen. I have worked in governments of men, of tyrants, of socialists, and of communists. I have met with princes, kings, despots, and desperados. I have seen the squalor of Asia, the frozen class barriers of Europe. And I was not a tourist. I was associated with their working lives and problems. I had to deal with their social systems and their governments. And outstanding everywhere to these great masses of people there was a hallowed word—America. To them it was the hope of the world. The meaning of our word America flows from one pure source. Within the soul of America is freedom of mind and spirit in man. Here alone are the open windows thru which pours the sunlight of the human spirit. Here alone is human dignity—not a dream, but an accomplishment. Perhaps it is not perfect, but it is more full in realization here than any other place in the world.

Another writer, in speaking of the free-enterprise system, once said, "On what principle is it that, when we see nothing but improvement behind us, we are to expect nothing but deterioration before us?"

Review Questions

1. State the chief criticisms which have been made of the free-enterprise system.
2. Suggest possible ways of remedying the defects of a free-enterprise economy.
3. What is meant by individual planning? State the advantages and limitations of individual economic planning.
4. List the various methods suggested for implementing a policy of general economic planning.
5. In what respects can the development of cooperatives be considered an alternative to economic planning?
6. What are the main advantages and disadvantages of cooperatives?
7. Distinguish carefully between socialism, fascism, and communism, and point out the advantages and disadvantages of each system.
8. If you had to adopt an alternative to free enterprise, which system would you choose? Why?
9. Under a system of free enterprise, do we have indirect controls? Explain. Direct controls? Explain.
10. How does each of the following affect our ability to solve our economic problems: (1) war, (2) population growth, (3) the desire for quick results?

Problems

1. In his inaugural address on Jan. 20, 1949, President Truman spoke as follows:

The American people stand firm in the faith which has inspired this nation from the beginning. We believe that all men have a right to equal justice under law and equal opportunity to share in the common good. We believe that all men have the right to freedom of thought and expression. We believe that all men are created equal because they are created in the image of God.

From this faith we will not be moved.

The American people desire, and are determined to work for, a world in which all nations and all peoples are free to govern themselves as they see fit and to achieve a decent and satisfying life. Above all else, our people desire, and are determined to

work for, peace on earth—a just and lasting peace—based on genuine agreement freely arrived at by equals.

In the pursuit of these aims, the United States and other like-minded nations find themselves directly opposed by a regime with contrary aims and a totally different concept of life.

That regime adheres to a false philosophy which purports to offer freedom, security, and greater opportunity to mankind. Misled by this philosophy, many peoples have sacrificed their liberties only to learn to their sorrow that deceit and mockery, poverty and tyranny, are their reward.

That false philosophy is Communism. Communism is based on the belief that man is so weak and inadequate that he is unable to govern himself, and therefore requires the rule of strong masters.

Democracy is based on the conviction that man has the moral and intellectual capacity, as well as the inalienable right, to govern himself with reason and justice.

Communism subjects the individual to arrest without lawful cause, punishment without trial, and forced labor as the chattel of the state. It decrees what information he shall receive, what art he shall produce, what leaders he shall follow, and what thoughts he shall think.

Democracy maintains that government is established for the benefit of the individual, and is charged with the responsibility of protecting the rights of the individual, and his freedom in the exercise of his abilities.

Communism maintains that social wrongs can be corrected by violence.

Democracy has proved that social justice can be achieved through peaceful change.

Communism holds that the world is so deeply divided into opposing classes that war is inevitable.

Democracy holds that free nations can settle differences justly and maintain lasting peace.

These differences between communism and democracy do not concern the United States alone. People everywhere are coming to realize that what is involved is material well-being, human dignity, and the right to believe in and worship God.

a. Does the definition of communism used by the President agree with that given in the text? Why, or why not?

b. State the outstanding differences between communism and democracy as the President sees them, and point out how each affects the problem of direct over-all planning.

2. Dr. Ernest Cory, Professor of Entomology at the University of Maryland, made the following statement recently:

Man can go to the ant to learn that he can never succeed in a totalitarian state. . . . If human society would attain the selflessness of the social insects, the material needs of nations probably could be achieved without serious difficulties. . . . How would you like to have the destiny of an ant? Would you want to work at appointed

tasks indefinitely with no chance ever to improve, to change your job, or even to achieve something better materially?

We must point out the serious consequences in the complete loss of individual development under any totalitarian scheme. Furthermore, we should attempt to clarify our thinking now beclouded by issues of socialism, capitalism, and labor, and make it plain that the real issue lies in the determination of whether moral and spiritual values will prevail over scientific materialism.

Such insects have the power to predetermine the rank and caste of every individual that is to be a cog in any one of the totalitarian colonies. Birth control methods and feeding schedules achieve that end.

Would you trade your individuality for non-entity, your initiative for security? If you have no faith in your ultimate destiny then let the planners arrange a termite-like existence for you.

a. To what extent can the economic problems of human beings be compared with those of insects?

b. What similarities would you find between a planned state and the conditions described above? What differences?

3. Prof. David McCord Wright, in his book, "Democracy and Progress," [5] states that there are four main types of policies advocated in the modern world. He lists these as

(1) blind adherence to laissez faire at home and to economic isolation abroad. . . . (2) Planned monopolistic combination and log-rolled stagnation by business, labor and government . . . (3) full-fledged socialism or fascism . . . (4) removing barriers to investment and production so as to give utmost freedom to the capitalistic machinery, while standing ready to forestall disastrous deflation by the injection of purchasing power. . . .

a. Do you agree that these are "the four main types of policy advocated in the modern world"? Why or why not?

b. On the basis of the discussion in the previous chapters, which of these types of policy seems the most desirable? Why?

c. Do these four policies represent alternative methods of economic planning?

d. Professor Wright insists that he is neither a conservative nor an ultra-liberal. Which policies do you think each of these groups would adopt?

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