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THE NATIONAL DEBT AND THE NEW ECONOMICS

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and
THE NEW ECONOMICS

by

Seymour E. Harris

Professor of Economics

Harvard University

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For

JOSEPH ALOIS SCHUMPETER

Friend and Colleague,
who must not be held responsible
for the views herein expressed

Preface

In 1941, I presented a paper on the public debt before a joint meeting of the American Economic and Statistical Associations, which was subsequently published in *Postwar Economic Problems* (1943), a volume edited by the writer. The paper, in both its spoken and printed forms, received much criticism, favorable and otherwise—mostly otherwise. The *Saturday Evening Post*, among other popular journals, "honored" it with editorial comment.

Since 1941, the subject of the public debt has grown more, not less, important. The problems adumbrated in the earlier study warranted further study which resulted in the present volume.

It is hoped this book will be read by informed laymen as well as by economists, for it is important that the public know more about the debt than they now do. With a better understanding of the subject, the public will then have a proper perspective and sounder basis for logical conclusions.

Some knowledge of the "new" economics is a requisite for an understanding of the problems raised by the national debt. This volume, therefore, in as elementary a form as possible, also deals with the new economics, on which current theories of the public debt are based. As one cannot expect to have any grasp of the theory of relativity without some knowledge of physics (*e.g.*, theory of motion of material bodies and the propagation of light), so an understanding—even an elementary understanding—of the current theories of public debt is impossible without some knowledge of the new economics (*e.g.*, adequacy of demand).

Mr. Henry Murphy and Mr. Louis Shere of the United States Treasury kindly supplied the answers to many of my questions but take no responsibility for any of my statements. My secretary, Miss Lillian Buller, was helpful, as was Mrs. Anna Thorpe, who typed much of the manuscript. The index was prepared by Mr. Bernard

Larner. Mrs. Margarita Willfort, my research assistant, collected materials, checked references, and read the manuscript.

As in much of my writing, I am indebted to my wife, Ruth B. Harris, for valuable assistance throughout in organization and presentation. She also read the proofs.

SEYMOUR E. HARRIS

CAMBRIDGE, MASS.
September, 1947

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List of Abbreviations

A.E.A. Proc.	American Economic Association Proceedings
A.E.R.	American Economic Review
E.J.	Economic Journal
F.R.B.	Federal Reserve Bulletin
J.A.S.A.	Journal of the American Statistical Association
J.P.E.	Journal of Political Economy
Q.J.E.	Quarterly Journal of Economics
R.E.S.	Review of Economic Statistics
S.C.B.	Survey of Current Business
Treas. Bull.	Treasury Bulletin
B.A.E.	Bureau of Agricultural Economics
B.L.S.	Bureau of Labor Statistics
C.E.D.	Committee for Economic Development
N.B.E.R.	National Bureau of Economic Research
N.I.C.B.	National Industrial Conference Board
N.P.A.	National Planning Association
N.R. Committee	National Resources Committee
T.N.E.C.	Temporary National Economic Committee
GNP	Gross National Product

Part I

INTRODUCTORY AND SUMMARY

Chapter I

Pointing Up the Argument[1]

CONTENTS: READERS' GUIDE

This volume is composed of seven parts and a conclusion. Part I is, in effect, a summary, divided into three chapters: the first points up the argument, the second concentrates on several important issues, and the third systematically summarizes the contents. From Part I and the conclusion, the reader can obtain the essentials of the book in the minimum time. This first chapter itself might, in fact, be considered a quick digest of the argument of the book; I should warn the general reader, however, that it is a little on the technical side.

Part II deals with the views on public debt. In Chapter IV, a quick survey of views on the public debt is presented—by no means exhaustive, this survey merely gives the high lights of economists' views on the debt, and particularly those of classical economists. Chapters V and VI examine the conflict between the views of businessmen and economists on fiscal policy, and the obstacles that hinder dissemination of new ideas on debt policy, in the market place for ideas.

In Chapter VI, an attempt is made to explain the failure of new ideas on the public debt to take hold. To some extent, increased influence of those research organizations which are sponsored mainly by businessmen accounts for the uneven struggle to obtain acceptance for these ideas. These organizations are increasingly influential; and frequently representing but one viewpoint, they are not so receptive to new ideas as individual research workers—without allegiance to any one group, order, or class. But even when research organizations are

[1] References are not given in this chapter where the subject matter receives fuller treatment in the body of the book.

controlled by groups representing not only business but varied interests, they may well be less receptive to new ideas than individual scholars. When they are controlled by one group (*e.g.*, businessmen) then—despite the fact that they are called research organizations—they are likely to be in fact propagandist organizations. The resulting discouragement, or proscription, of new views is unfortunate and is a *partial* offset to the good work done by these organizations. In the area of fiscal policy, the effects have been particularly unfortunate.

In Part III, the relation of economic maladjustments and deficit financing (and debt growth) is discussed. Part IV takes us into the main issue of the volume, emphasizing the inflationary aspects of debt growth. In Part V, the relation of debt burden to wealth and income and to the distribution of the debt is discussed in some detail.

To discuss the problem of debt without discussing taxes is out of the question. The easy way out would have been to refer the reader to books on taxation and perhaps that is what the writer should have done. Those who think so may skip Part VI, for it discusses taxes—moreover in no less than three chapters, which underlie those aspects of taxation especially germane to the problem of the debt. It is particularly important to discuss tax capacity in relation to debt potential; obviously tax capacity means little without some discussion of the nature of the tax system and the incidence of taxes.

Having covered these basic issues, we are then ready to discuss in Part VII the important subject of debt management. Here we present first some factual material on the public debt followed by a discussion of interest-rate policy, the inflationary aspects of management, and finally a historical and analytical discussion of repayment of debt.

THE GROWTH OF DEBT

As in common practice, this book uses the terms "public debt" and "national debt" interchangeably. Technically, public debt and national debt are not identical. The term "public debt" includes the debt not only of the federal government, but also of state and local governments; "national debt" covers only the federal government. In this book we discuss the national debt and, although the terms are frequently used interchangeably, we have throughout consistently excluded the state and local debt (amounting to $20 billion).

1.1. 1836–1946. Over a period of 100 years, from 1836–1936, the federal debt in the United States rose roughly a million times, and in the next 10 years, seven to eight times. Although the average annual rate of growth in the years 1836–1936 was more than 10,000 times as great as in the years 1936–1946, it is the rise in the latter period that is a matter of special concern to the present generation of Americans. As of December, 1946, the federal debt was estimated at $258 billion —this is exclusive of a debt of about $25 billion on non-interest-bearing notes of the government, of obligations incurred on account of old-age insurance and veterans' insurance, and of further obligations associated with the war. We can, therefore, roughly and without exaggeration, refer to our $300 billion federal debt.

1.2. THE FEAR OF OUR GROWING DEBT. If an intelligent layman compares this national debt of $300 billion with our national income of $170 billion, he is disturbed; when he goes a step further and compares it with our wealth, which may now be estimated at between 350 and 500 billion dollars, he is frightened. When he envisions for the future a steady rise of public debt and visualizes a debt of 500 or 1,000 billion dollars in 25 to 50 years, he sees in its wake only a repudiation of the debt, or an extreme inflation, and with either of these a complete breakdown of our system of private enterprise. Our adjective for our hypothetical layman was "intelligent." Being intelligent, *i.e.*, rational, he will want to have his reasoning tested and to have his errors, if any, pointed out to him.

1.3. THE BALANCE SHEET. Let us start by assuring one and all that the debt is, in fact, not nearly so dangerous as most believe; but there are elements of danger that should not be dismissed too lightly. If the alarmist is not right, the pollyanna may be equally wrong. One should not say merely that the public debt is good or bad, helpful or harmful, destructive of private enterprise, or indispensable to its maintenance. Economic problems are not solved so simply. It is not like measuring the specific gravity of iron or the temperature of an animal. In fact, it is not clear that the community would be better off without debt accumulation, any more than it is clear that private enterprise would be better off without its recent debt of $113 billion. In appraising the debt, it is necessary to take into account the gains of *accumulation* of debt—and there are gains, as will be explained—as well as the cost of financing the debt. Against the debt, there are certain assets: *e.g.*, a decisive victory in war, the rise of physical assets, favorable effects

upon income and savings, medical and sociological gains associated with reduced unemployment.

GROWTH OF DEBT IN WAR AND PEACE

1.4. IN WAR. The financial purist, always averse to debt, views debt growth in war with uneasiness; but he has no alternative other than to acquiesce. He will indeed urge heavier taxation and economies in expenditures; but within broad limits, there is little that he can do about wartime borrowing and wartime public debt, which he accepts as a necessary evil. Borrowing in peacetime, on the other hand, he considers an evil, neither necessary nor acceptable—in a word, an abomination.

At the outbreak of World War II, our federal debt was but $40 billion. Before the years of the great depression of the thirties, discussion of national debt was largely concentrated on debts contracted in war. But after 1929 most of the debate on the public debt centered around peacetime debt and any further accumulation of debt in the postwar period. In Germany, however, in the second half of the nineteenth century, economists discussed the problem of peacetime accumulation of debt; and in Anglo-Saxon literature in the 1930's the emphasis shifted from management of wartime debt to the problem of accumulation of debt in peacetime. Both wartime and peacetime problems of national debt are of great importance, and both receive attention in this volume.

1.5. IN PEACE. Increased attention to government deficit financing, *i.e.*, public debt, stems from the change of emphasis which might quite properly be associated with the Keynesian revolution. Classical economists, in arguing against accumulation of public debt, generally assumed full employment, inelastic monetary supplies, unproductiveness of public expenditure for purposes other than defense, justice, etc. Therefore, they objected to government borrowing: in their view, the government, by borrowing and by taxing to defray interest payments, deprived the economy of cash and capital, and the government's use of resources was less productive than that by private enterprise.

But the classicists' assumptions of full employment and inelasticity of monetary supplies were unrealistic. Once the economist, in a more realistic mood, allowed for unemployment, assumed elasticity in monetary supplies, and agreed that government expenditures could be productive and need not necessarily be wasteful, the case for public

borrowing was strengthened. The cash obtained by the government might come from unemployed cash, or out of additional deposits created by the banks; and the labor and capital put to work by government might otherwise have been unemployed. Government might thus, through the borrowing process, increase the output of goods and raise real income; and in so doing, it would obtain the means of financing the public debt. Above all, it seemed wasteful and foolish to tolerate large amounts of unemployment if, by government borrowing and an ensuing rise of demand, unemployed resources could be put to work—and this without national bankruptcy or anything approaching it.

RISE OF DEBT IN PEACETIME

1.6. WHY GOVERNMENT SHOULD SUPPORT DEMAND. The general public, it is true, is worried over today's national debt, but even more than over the high level of today's debt, the public is worried lest the debt continue to grow. On what grounds, on the other hand, do the protagonists of public debt, *i.e.*, the "spenders," take their stand? They point to past relationships of income and spending and conclude that, at the high incomes necessary to assure high levels of employment, *private* spending would be inadequate. Therefore, they propose a socialization of demand, *i.e.*, support of demand through governmental deficit spending, which, in their view, is the way to prevent a cumulative decline. These proponents of debt accumulation, for the most part, would not rely exclusively upon the growth of debt: they would take other measures (*e.g.*, reduction of interest rates, reduced taxes on the masses, expanded social security) which strengthen the propensity to spend.

The supporters of deficit financing point to the crucial relation between national income and the debt charge: so long as the former rises adequately, a growing debt need not be feared. In fact, debt growth stimulates the rise of income, and this increased income provides the source from which the increased debt is financed. Adherents of this position point to the history of *real* income, which over a period of 80 years preceding World War II rose greatly, doubling itself every 15 years on the average. The reader will find Chart 1 of some interest. He should examine especially the relation of *money* income growth and the interest charge—and also their absolute amounts.

Supporters of the new views point specifically to the growth of

income in Great Britain in the 100 years preceding World War I, from 1814 to 1914: the British were saddled with a crushing debt of £840 million, the financing of which in 1818 absorbed almost 8 per cent of the national income. Yet in 1913, 95 years later, though but one-

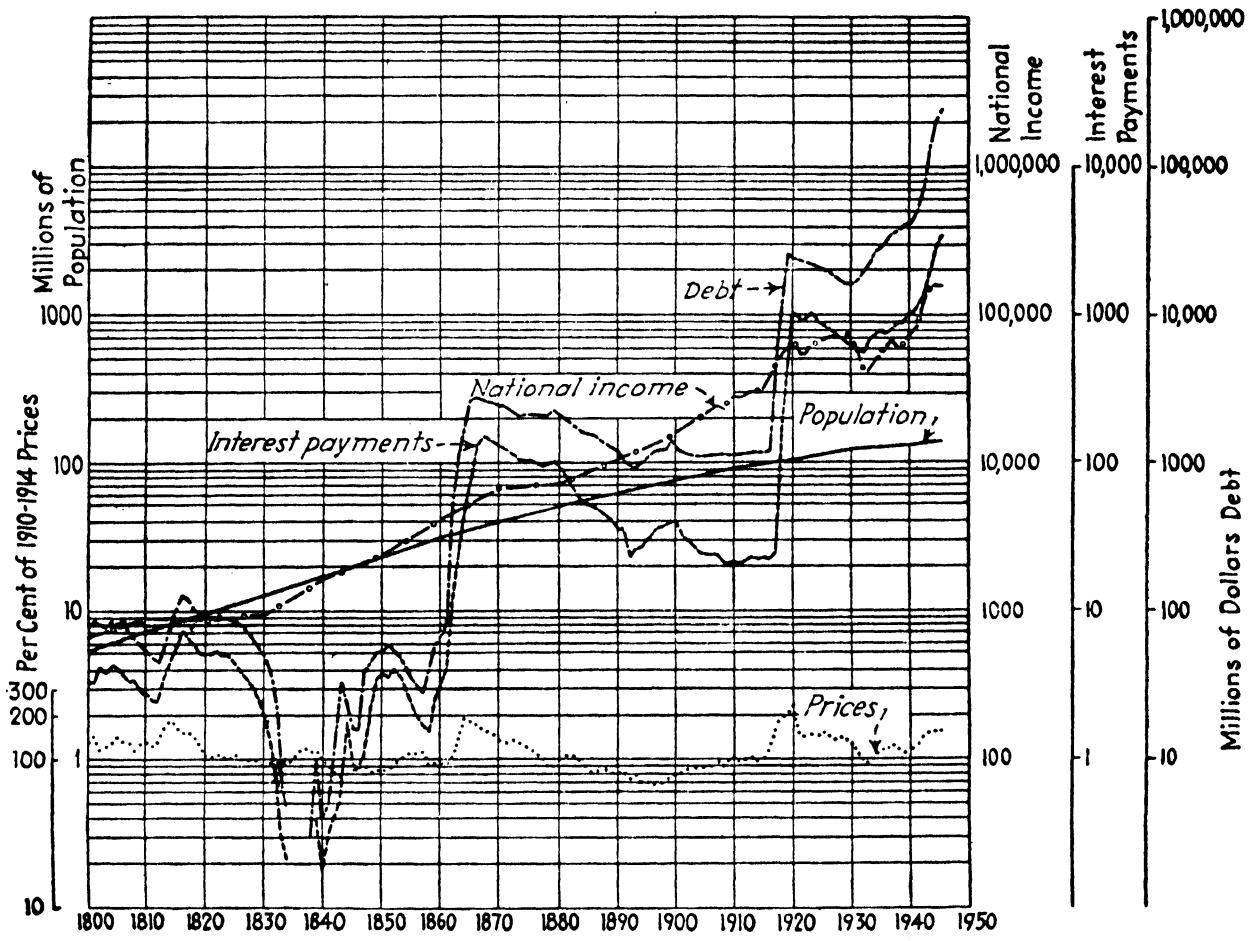


CHART 1.—The public debt and related variables.

SOURCES: Public debt and interest payments: *Annual Reports of the Secretary of the Treasury on the State of the Finances*, 1937, 1944. Before 1853: Letter of H. C. Murphy, Assistant Director of Research and Statistics, Treasury Department, to writer.

Prices: Warren and Pearson, *Prices*, to 1933; after 1933, Bureau of Labor Statistics series, adapted to basis 1910–1914 = 100.

Population: *Economic Almanac for* 1945–1946.

National Income: *Economic Almanac for* 1945–1946 and *Statistical Abstract of the United States*, 1944–1945.

Public debt and interest payments since 1840 are for fiscal years; all other series, calendar years. National income figures before 1900 are available only for 10-year periods, and always for 1 year before decade (*e.g.*, 1879 for 1880, etc.). National income is in current dollars.

quarter of the debt had been repaid, its financing required but 1 per cent of the national income—and this despite a large fall in prices. If, like the protagonists of deficit financing, we examine historic episodes, we can better understand their position on deficit financing: Give the country good management of the economy, and we shall have rising

incomes; and with rising incomes, an increase in debt up to the amounts actually needed to assure adequate levels of output and employment can be accepted without fear. That, in short, is the position of the public debt school.

1.7. THE OBJECTIONS RAISED. Many, less sanguine, have misgivings. They fear the growth of debt not only because of the financial commitments involved, but also because of the crushing weight on wealth and income. As one congressman expressed it, "Every child is born to a debt burden of $2,000." Furthermore, they are fearful of the increased participation of government in economic life, with resulting reduced areas for private enterprise. The thesis that private enterprise is unable to carry on and provide the minimum standards of output and employment, without which capitalism cannot survive, is challenged by the antispenders. They are impressed by the damper put upon private enterprise by governmental measures, by the increased contribution that might be made by price flexibility and unlimited competition, by the insatiable demand for American and even foreign products. Projections that they espouse (*e.g.*, *Markets After the War* and the Committee for Economic Development study, *American Industry Looks Ahead*) are less pessimistic as to demand at high-income levels than those of the spending school. In short, they argue that increased governmental participation is not required, that the system of private enterprise is sufficiently resilient and automatic so that, given the proper political milieu, the goods produced will find a market at profitable prices.

1.8. WILL DEMAND BE ADEQUATE? A crucial problem is that of projections of past trends into the future. Unfortunately, the period for which adequate statistical material is available is brief, and projections do not yield unequivocal results. Our statistical experience is limited to one prosperous period in the twenties and a relatively depressed period in the thirties—the information for the twenties is of limited value. In general, New Deal economists find much evidence in the recent past of a deficiency of private demand and of excessive savings, which must be absorbed if secular declines are to be avoided. Unfortunately, the figures relate to a gross national product (GNP) that varied between 60 and 90 billion dollars in the base period of the twenties and thirties; these figures may not suggest a generally acceptable ratio of consumption and savings to income at a GNP of $200 billion—a reasonable figure for the future. Unfortunately, also, much

work remains to be done on the significance of population changes, movements into urban areas, distribution of income and (related) taxation, increased liquidity, capital requirements, etc., before projections on the basis of past experience can greatly help the economic practitioner. Yet one conclusion may very cautiously be drawn: private savings in the early postwar at high levels of employment are likely to be of the order of $20 billion or more. Unless adequate outlets can be found, savings will be wasted, demand will be inadequate, and in the absence of governmental intervention or other correctives a serious depression will set in.[1]

THE BURDEN

1.9. THE PROBLEM IS COMPLICATED. How burdensome a public debt is depends on many factors. The problem should not be oversimplified, as it has been for centuries by those who argue that the public debt involves merely transfers from the right hand to the left hand; nor should the burden be exaggerated as it is by those who contend that every additional billion dollars of debt affects the body politic in about the same way as an additional pound beyond the perfect racing weight slows up a race horse.

That the measure of the burden is not to be had without reference to the income of the nation is evident from earlier discussion. That any inflationary effects of a growing public debt will add to the burden will be apparent from the discussion in the next section.

At this point, the position taken is that there are significant adverse effects to be associated with a growing public debt; but there are important offsets. The net effect may well be a net burden; but we must not accept even that conclusion as certain, without further investigation.

1.10. ADVERSE EFFECTS OF A GROWING DEBT. First, let us consider the adverse aspects. With a growing debt, the tax bill rises. If we could estimate the taxes without a public debt, both as to amount and structure, and compare these with the actual tax system, then we might gauge the tax effects of the debt. Even then, it would not be easy to guess at the tax structure in a debtless world; for without a public debt, total income and income distribution would be changed —with resulting effects on taxes and tax structure.

[1] *Cf.* Discussions in *R.E.S.*, February, August, and November, 1946, by Woytinsky and others, and in *A.E.R.*, September, 1945, and March, 1946 (Hart on Model-Building and Mosak on National Budgets).

Since the tax effects are important, this volume devotes three chapters to the tax system. But on the nature of the tax system we have to be content with general remarks about the effects of alternative systems on spending and the burden borne by various groups. We do not know what the tax system would have been without the debt burden; and we are equally ignorant of incomes, amounts, and distribution, in a debtless world.

Related to the subject of debt burdens are the effects of interest payments on total spending. Here much depends on distribution of government securities and tax structure. The presumption even today is that the interest payments are on balance from potential spenders to potential savers—and particularly since about two-thirds of the debt is held by institutions, *i.e.*, banks, insurance companies, government trust funds. Taxation of income received as interest on the debt, however, tends to reduce the adverse effects—both because net interest is reduced and because other idle savings are taxed away.

These are the main economic burdens. The noneconomic aspects also are of importance. A growing public debt means a rising *rentier* class, which lives without work. It may well be accompanied by increased participation of government in the economic life of the community. The former is distasteful to most Americans; the latter, to many.

1.11. OFFSETS TO THE INCREASED BURDEN. Now we turn to offsets. With the growth of public debt, national income and savings rise. While the public is saddled with higher tax burdens, they are also enriched by their increased holdings of government securities. Let us not forget that about 60 per cent of the wartime rise of federal debt of $240 billion was purchased out of gross savings—from noninflationary sources. Let us not forget that the rise in liquid assets of $215 billion in the years 1940–1945 is intimately associated with the growth of debt; for the guarantee of markets by the government made possible by public borrowing was a necessary condition for the large rise of wartime income. Let us not forget that in these six years total spendings (gross income flow) were close to $1,000 billion, or $450 billion above six average years in the late thirties. With the growth of debt, then, incomes rose; and with the rise in the latter, savings increased. Thus, the country has a larger debt and tax obligation as a result of the war; but it also has a larger credit (the corresponding securities and income).

This is not the only offset. A rise of liquid assets from 82 billion dollars to 297 billion dollars is of vital importance: in an economic world that has suffered from shortage of demand and may do so again, the availability of $215 billion of additional money and quasi-money should contribute importantly to a higher level of spending.

While on the subject of money, another important aspect of debt growth should be taken into account. Approximately 80 per cent of the total monetary supply of this country stems from an expansion of public debt. Clearly, if this money were not available, the country would be starved for circulating mediums—with disastrous effects upon output and employment. Possibly in the absence of debt growth other means would have been found to provide the country with adequate supplies of money. On the basis of our monetary history, however, the writer is not inclined to be too optimistic as to alternative routes to monetary adequacy.

In short, then, if the growing public debt raises problems and burdens for the economy, it also makes significant contributions.

1.12. BURDEN IS RELATED TO DISTRIBUTION OF THE DEBT. Next there is the problem of ownership distribution. How great the burden is depends in no small part upon who owns the securities and who pays the taxes. In the nineteenth century, for example, bonds were not widely held; taxes were largely on the masses. Debt expansion was then in fact a serious burden insofar as it involved transfers from the masses to the well-to-do. Yet the results were more favorable than the Ricardos and Gladstones had a right to expect. What accounted for this unexpected outcome? *Rentiers* provided much needed capital, and the growth of capital contributed to the unprecedented economic development, which had the effect of easing the debt burden. And this despite the large fall in prices which followed both the Napoleonic and Civil Wars and which tended to increase the goods burden of the debt. The burden in man-hours of work, however, tended to decline—productivity rose more rapidly than prices fell.

1.13. CURRENT DISTRIBUTION. Prospects now are not quite so favorable as the nineteenth-century experience in retrospect is reassuring. Although information on ownership is not too plentiful, the available evidence suggests that the securities in our country are still largely held by the upper income groups. The banks, for example, which account for 40 per cent of the outstanding debt, seem to be largely owned by business and high-income groups. Other institutions

(*e.g.*, savings banks, life-insurance companies, federal trust funds) account for a much smaller percentage of outstanding issues today than they did just before World War II. On the other hand, government securities are more widely owned than ever before, and income history since 1939—and in particular that part which indicates the small proportion of income obtained by those with net incomes of $5,000 or over—suggests that the well-to-do could not have purchased a very large part of new issues. On balance, however, we conclude that there is considerable concentration of debt in high-income groups, though not so much as in the nineteenth century. Taxes, moreover, are much more heavily assessed on the high-income groups. At least, transfers to the well-to-do, on the proportions of the nineteenth century, are not indicated by our present tax system and distribution of debt.

INFLATION

1.14. PRICES AND DEBT BURDEN. The measure of burden is not unrelated to the inflationary effects of a growing debt. If an inflation brings maldistribution, distortions, and collapse, and if the inflation is to be associated with debt growth, then the burden of public debt is greater than has so far been assumed.

Rising prices, it should be observed, reduce the cost of the debt in terms of goods; therefore, insomuch as this results in a gain to the Treasury, rising prices are a partial offset against any increased costs to the economy as a whole. A policy, however, that aims to cut debt burden through the inflationary process is in fact a disguised form of repudiation and should be rejected if only for this reason. Falling prices, on the other hand, tend to raise the cost of the debt in goods. Price policy after the Civil War and after World War I might well be condemned on the grounds that, with falling prices, windfalls were bestowed upon the *rentier* class. Insofar as the decline of prices contributed to unfavorable economic conditions, moreover, the financing of debt became more difficult.

These are not, however, the main price problems raised by the public debt. A total war unfortunately cannot be financed by taxation exclusively, nor by taxation *and* noninflationary borrowing. Over a period of 6 years (1940–1945), the federal government spent $365 billion, of which 40 per cent was obtained through taxation. Approximately $215 billion was borrowed—$133 billion from nonbank

investors in federal securities and the remainder, $82 billion, from inflationary[1] sources, the latter rise corresponding to the increase of demand deposits and currency outstanding.[2]

1.15. THE INFLATIONARY PROCESS AND DEBT GROWTH. This rise in sales of government securities to banks accounted for the expansion of money, income, and savings in the war period. A GNP of $1,000 billion over the 6 years, or a rise of about 80 per cent over the average for the recent prewar years, is largely associated with these sales to banks (not offset by reductions in other assets) and, to a limited extent, with sales in exchange for cash or deposit balances that otherwise would have been idle. At the prewar net income of $70 billion, savings of $10 billion or a little more and taxes of 10 to 15 billion dollars might have been made available to the government. The government, however, required $100 billion annually at the peak of the war, or at 1939 prices about $80 billion. In order to siphon off $100 billion (1945 prices)—$45 billion from taxes, $33 billion from noninflationary sales, $22 billion from inflationary sales—it was necessary to expand money incomes and savings. The public added $215 billion to its accumulation of liquid assets, three-fifths of which was put into public securities. At these high-income levels, the government was able to divert 45 per cent of the gross product to war. Taxation and loans provided the Treasury with the required amounts of cash; and controls over the flow of scarce materials, components, labor, etc., made it possible for the government to obtain a proportion of the flow of resources and goods in excess of its command of the flow of purchasing power. Its cash could more readily be used than the cash of the public, which to some extent became immobilized.

1.16. THE THREAT OF LIQUID ASSETS. The inflation problem originates in no small part in this vast growth of liquid assets—cash, deposits, and government securities—associated with the financing of the war and, in particular, with the rise of public debt. Deposits rise with sales of securities to the banks; and the public, aided by the resulting rise of money and incomes, purchases large amounts of government securities. If these liquid assets—money and near money—should be unloosed on commodity markets at an excessive rate, given the flow of goods, large rises in prices would be inevitable. A poll of owners

[1] Here inflationary means sales to banks. A more adequate definition follows in the next paragraph.

[2] *Treas. Bull.*, April, 1946, pp. A-11 to A-15.

of liquid assets is reassuring: they are predominately disposed to hold these assets for purposes of security and exchange for financial assets, *e.g.*, farms and homes.[1] Present intentions, however, do not tell the whole story. Should a large inflation develop, with an increased general awareness of future declines in the value of money, the flight to goods may be precipitated. Yet, on the whole, the writer concludes that the inflationary threat of these liquid assets is exaggerated: poor management of our economy alone will convert the threat into a serious inflation.

It is necessary especially to emphasize the importance of non-monetary determinants of spending. The supply of money in relation to GNP clearly has risen since 1940; but the rise suggests a reduction in the rate of interest as well as increased requirements for transactions. At lower rates of interest, the public holds more money. Price stability is consistent with expanding monetary supplies and falling rates of interest.[2] In fact, for generations the supply of money relative to GNP has risen; yet (Chart 1) prices over 140 years have shown little net change.

1.17. THE FIGHT ON INFLATION. It is necessary above all to prevent a large inflation. We should sharpen and use all weapons in the anti-inflationary arsenal: control of exports; continuance of price and related controls until the flow of consumers' goods has reached a normal level; budgetary surpluses so long as demand continues excessive; a moderate wage policy which strikes a fair balance between the long-run requirement that wages be high enough to take goods off the market and the short-term requirement that demand for goods be not excessive. Unfortunately, controls were scrapped too soon.

The inflationary threat always hovers over the economy as long as employment is at a high level. Large liquid assets merely increase the danger of a cumulative rise of prices, once the upward movement reaches substantial proportions.

Inflation might have been reduced if the government had not yielded to pressures of special interests to remove price control prematurely, to weaken other controls, to encourage excessive wage rises, to submit to farm pressure for higher prices. Repayment of debt *in the*

[1] U. S. Department of Agriculture, B.A.E., *The Distribution of Liquid Assets*, Study 113–114, June, 1945, p. 30.

[2] *Cf.*, especially, H. P. Wald, "The Expanded Money Supply and Economic Activity," *S.C.B.*, May, 1946, pp. 8–15.

next few years could undoubtedly reduce pressures to some extent. Yet compared with wage and control policy, fiscal policy is not going to be very important. Against the $170 billion of current income and the 120 to 130 billion dollars of annual potential demand for consumption goods plus any disbursements out of liquid assets, the difference made by a few billion dollars of debt repayment is bound to be small.

The approach to the problem of liquid assets may be stated thus: Our objective should be to encourage the public to hold on to these assets—the securities will impart a sense of security. *Our aim should be their exchange for goods, over a long period, the minimum of cash or quasi-cash being released in periods of inflationary dangers and the maximum in periods of depression.* Avoidance of a large measure of inflation in the immediate future will be an important contribution to the evolution of this time pattern of exchange of excess liquid assets for goods.

So much for the wartime debt. The conclusion is that the danger of inflation is not to be minimized; but it can be contained. It is a price that has to be paid for carrying on a great war. The alternative of noninflationary war finance is not open to the government, unless controls beyond any so far used by democratic governments are envisaged—and even then the results are none too certain.

Accumulation of public debt in peacetime raises somewhat different problems. This type of debt may be assumed to grow as an offset to savings which otherwise would not be used. Additional money would replace money made idle, or the government would exchange securities for idle money. This process is largely noninflationary; its objective is to put unemployed resources to work. Expansion of money on the wartime model is clearly not necessary and is ruled out.

MANAGEMENT

The problem of debt management by the Treasury is largely that of keeping the debt burden at a minimum. Treasury concern is with the rate of interest paid, the maturity schedule, the tailoring of issues to market needs, the rate of repayment.

1.18. KEEPING DOWN THE RATE OF INTEREST. The lower the rate of interest, the less the cost of a given debt, and the more can be borrowed at a given dollar outlay. Naturally, the Treasury, like any borrower, seeks rates of interest as low as possible. By segmenting the market and paying each part what is necessary, the Treasury depresses the average rate below what it would have been if a single rate were

paid irrespective of class of purchaser and maturity. Yet the Treasury cannot go too far in depressing rates. If it felt free to do so, it might issue non-interest-bearing notes in paying its bills; and many have urged this method. The unorthodoxy of this approach and wariness of the inflationary effects evidently served to deter the government from this route to financial salvation. The crucial issue is, in fact, how far can the government depress rates, and without subjecting the economy to serious inflationary effects? In the war period, the fiscal authorities seemed to strike a reasonably good balance between these two objectives: minimum cost and minimum inflation. Treasury officials may be prejudiced in favor of the first objective, minimum cost, *i.e.*, minimum of rates of interest, because the gains accrue to the Treasury, whereas the costs of inflation are felt by the whole economy.

From the early part of 1942 to the end of 1945, the market was never really tested, *i.e.*, the rates were not allowed to settle at a point fixed by free market prices. At each of the eight large loan campaigns, the government issued 2½ per cent Treasury bonds. Series G savings bonds, which were issued both during and between loan campaigns, yielded 2½ to 2.9 per cent (the maximum for E bonds if held until maturity). Insofar as cash needs were not met by sale of these securities and taxation, the government largely depended on short-term and low-yielding issues, which were purchased by banks and to some extent by others. Under these conditions, long-term rates were not likely to fall much below 2½ per cent. One might always wait until a new issue of 2½s was forthcoming. When, finally, late in 1945 the market was partly tested—the budget was nearly in balance and large additional issues of 2½s could not be counted on—the price of government securities rose in a spectacular manner.

The year 1946 was one of transition. Computed rates on all government securities outstanding rose from 1.96 per cent in December, 1945 to 2.05 per cent in December, 1946. This rise of rates does not, however, reflect a weakening in the government security market. In fact, the rate on *taxable bonds* actually declined net from 2.33 per cent to 2.24 per cent, although there was a substantial rise after April, 1946. A general rise in the computed rate on all issues may be explained by (1) the increased relative importance of long-term and high-yielding securities—in the year 1946, marketable *notes and certificates of credit* (short-term securities) outstanding declined $21 billion; and also by (2) the reduction of debt outstanding held by commercial

banks, which accounted for a liquidation of $14 billion of government securities. The total reduction for the year 1946 was $18 billion. The accompanying reduction of deposits contributed to reduced supplies of money and demand for assets. An additional factor accounting for a reduction in demand for securities in 1946 was the large drop in savings of individuals—$15 billion out of a total income of $164 billion, in contrast to $35 billion out of an income of $161 billion in 1944. Another reason was the unusually high level of investment. Gross private capital formation rose to $32 billion in 1946 as compared to $4 billion in 1944. The fact that the government security market thrived in 1946 even with this low level of savings and high level of private investment and the contraction of money augurs well for the future.[1]

1.19. THE CAMPAIGN FOR HIGHER RATES. Many, and in particular, banking groups, are clamoring for a rise in rates, which, they believe, would bring about a desired redistribution of government securities from the banks to nonbanking investors. They are anxious that the debt be in part demonetized, *i.e.*, sales be made by the banks to the public, with an accompanying reduction of both deposits (money) and securities held by the banks. They adhere to this position, because they are fearful of the inflation potential associated with the large volume of deposits and with any further rise of deposits associated with sales of securities by the Treasury or the public to the banks. They also are optimistic concerning the response of investors to a rise in the rate of interest.

1.20. THE CASE AGAINST HIGHER RATES. The writer does not subscribe to this position for the following reasons: 1. Insofar as indications are available, the actual rate of interest is not too low. Under relatively free conditions, the rate seems to be tending downward. The large supplies of cash, deposits, and new savings as compared with the relatively small amount of new issues are relevant considerations here. On this score, one should consider the large amounts of idle cash held by the public.

2. There is a good deal of confusion implicit in the position taken by the demonetization group. They seem to think that an exchange of cash for public securities will contribute greatly to the anti-inflation fight. Actually, what the exchange really involves is an exchange of

[1] Figures from *Treas. Bull.*, February, 1947, and *The Economic Report of the President*, Jan., 8, 1947, pp. 38–41, and *S.C.B.*, February, 1947, p. 7.

money for quasi-money. What is required to reduce inflationary pressures is a reduction of spending, not an exchange of idle cash for government securities. In the writer's opinion, no *practical* rise in the rate of interest will seriously affect the amount of consumption demand, though it may have a small influence on investment.

1.21. THE CASE AGAINST HIGHER RATES CONTINUED: IS THE SECURITY MARKET TO BE DESERTED? 3. The demonetization or high-rate school is too inclined to assume a flow of securities from nonbanking investors to banks. Clearly, at high levels of income, this movement is not likely to occur, for the public will be surfeited with savings; and at low levels of income, few economists, irrespective of the direction of security movements, would seek higher rates of interest. We shall here limit our discussion to periods of high-level income.

In 1946, individuals and nonfinancial corporations accounted for one-quarter of the total interest-bearing debt. If there is any large movement into the banks, it will emanate from this group of investors. Yet all studies of intentions of individual holders of liquid assets, who account for two-thirds of government securities held by individuals and nonfinancial corporations, or $60 billion, reveal that large movements from "governments" into commodities are not likely. This is also the writer's views—subject only to the condition that, if a large inflation materializes, present expectations may not be realized. Nonfinancial corporations, which early in 1946 held about $30 billion of government securities, are more likely to dispose of Treasury issues, since more than one-half of their investments were held to meet tax liabilities; and with the reduction of these, government securities may be liquidated.[1]

Yet under favorable economic conditions, net sales by both individuals and corporations are not likely to be large. These investors have a first line of defense—unusually large amounts of cash and deposits. They will dispose of these before they sell large amounts of government securities. In addition, let us not leave out of account $20 billion per year of anticipated additional net savings in the next few years by individuals *and corporations*. Is it not likely that on balance not only will there be no net sales but, on the contrary, there will actually be competition for existing, and any new, issues offered by the government?

[1] In the year ending December, 1946, "other" corporations and associations disposed of $5.3 billion, *Treas. Bull.*, February, 1947, p. 48.

Other investors are even more likely to be buyers than sellers. Are life-insurance companies and savings banks apt to find outlets for several billions of savings exclusively in mortgages? It is doubtful. Government trust funds also will tend to accumulate cash for many years and hence on balance buy Treasury issues, rather than disburse more than they receive. Of all the important funds, unemployment reserves alone may lose cash in the next 10 to 20 years, and then only in periods of depression.[1]

This brings us to the commercial banks, which hold about one-third of the issues outstanding, or two-fifths inclusive of reserve banks. The reserve banks are not likely to dispose of a large part of their holdings. Many fear that commercial banks will desert the government-security market as they did after the last war. It is difficult to understand why commercial banks should do this. The money market is now so constituted that the banks will be provided with enough resources to enable them to hold an appropriate share of government securities. What is more, the government will make every effort to maintain the prices of government securities; therefore, banks need not be excessively concerned over depreciation.

Banks, above all, should be circumspect in their suggestions of higher returns on government securities; for they are vulnerable in view of their large profits and the popular antipathy to financial institutions. From 1940 to 1945, net profits of member banks in relation to invested capital rose from 6.2 to 11 per cent; whereas for all corporations there was a decline for all groups (study by the National City Bank) from 7.8 to 7.6 per cent. The rise of member bank net profits was $445 million; this was made possible for the most part by a rise in earnings on United States government securities of $768 million. (Taxes rose by more than $200 million.) In 1944, less than 1 per cent of the banks of the country failed to earn a net profit. Despite the application of effective price control upon banks (price charged the government), net profits rose by 130 per cent from 1940 to 1945.[2]

In short, under conditions of prosperity the government-security market should be strong, *i.e.*, prices should tend upward. Only a serious inflation should weaken the market in prosperous periods. There would then be some possibility of sales (net) by individuals and

[1] In 1946, savings banks, insurance companies, government agencies, and trust funds were on balance large purchasers of government issues.

[2] Figures from *F.R.B.*, April, 1946, pp. 379–381.

nonfinancial corporations; other groups should on balance be buyers. But with high incomes and large savings, competition for existing assets should be keen. It is unlikely that private investment will absorb available savings. In depression, there may be a greater disposition on the part of the public to sell; but in this situation, government would work feverishly toward providing additional demand to offset net sales, thus preventing a rise in rates.

1.22. THE CASE CONCLUDED: UNFAVORABLE EFFECTS OF AN INITIAL RISE. 4. Another reason for opposing a rise in rates is that, once initiated, it may go further than desired. The public will desert the market, awaiting the time when security prices have reached rock bottom.

5. Many might welcome a rise in rates on the grounds that it might correct the present inflationary situation (1946–1947). But today we have more effective and more selective ways of dealing with an investment boom: control of inventories, priorities, margin control, etc., will help temporarily, whereas it is not clear that a rise in rates will seriously curb inflationary tendencies. It will, however, seriously affect the position of the Treasury, which accounts for about three-quarters of all debts.

The writer is, then, not sympathetic to a rise in rates—especially when market forces would suggest continued declines. These reductions, it is hoped, would be slow; and there is something to be said in favor of relatively stable rates for the present.

1.23. CAUTION AGAINST OVERENTHUSIASM IN REPAYING DEBT. If unsympathetic to higher rates, the writer is even less so to a schedule of debt repayment for years to come. When demand is excessive, we should indeed welcome a reduction of purchasing power through the use of the tax power to repay debt. This is the essence of the problem. *Repay debt when demand is excessive; incur debt when demand is seriously deficient.* Our experience, as well as the British experience with debt policy and repayment, suggests that above all we should observe the relation of debt repayment to the amount of money outstanding and to the rate of interest. When repayment tends to reduce money and to raise rates of interest and reduce demand below the desired level, then it is time to call off the process. Those who are overzealous of debt repayment would do well to investigate British policy in the nineteenth century and after World War I and our policies after the Civil War and World War I. What is even more important than

the amount of public debt outstanding is the state of economy. Too many are inclined to overemphasize the importance of financial considerations and to underestimate the importance of output and employment. A financial program that proposes repayment of debt, without focussing primary attention on its effects on the entire economy, is unwise and irresponsible. May our policy makers steer clear of it.

As of March, 1947, the correct policy seems to be a reduction in debt for the fiscal year 1948 of between 3 and 5 billion dollars; but certainly not tax reduction. On balance, the next few years, especially 1948 and 1949, are likely to be years of excess demand.

Chapter II

Some Major Issues

INTRODUCTION

This chapter is sandwiched between the preceding one in which the main arguments are pointed up and the next one which presents a rather systematic summary of the contents. Together, these three chapters give the reader a fairly adequate summary of the book. They constitute, in a sense, an abbreviated book within the larger book. The present chapter is merely an attempt to select a number of points for special emphasis, which generally are treated more fully in the body of the book.

What is the relation of private to public debt? What is the genesis of the strong prejudice against public debt? Why do businessmen fear the public debt? To what extent are these fears unjustified? What can be done to resolve this neurosis? Why does the economist spend a disproportionate part of his energies seeking truth and inadequate energies disseminating it? What is the occasion for the growth of debt: in war and in peace? Is wartime debt dead-weight debt? Is the accumulation of public debt required if appropriate nonfiscal policies are pursued? Is high-level demand possible without government underwriting of demand? What are the vital questions in relation to public debt? These are the issues discussed briefly in this chapter.

THE PROBABLE SIZE OF THE PUBLIC DEBT

2.1. THE FEDERAL DEBT—EARLY POSTWAR. The history of the public debt since 1930 and the great burdens likely to be placed on the government in the next decade make an assumption of a federal debt of $300 billion in the near future not unduly pessimistic. The federal public debt was $258 billion on Dec. 31, 1946, a decline of $18 billion for the year 1946.[1] The problem of a $300 billion federal debt is, therefore to be discussed here; this particular figure is by no means

[1] *Treas. Bull.*, February, 1947, p. 21.

in the sphere of fantasy, particularly if allowance is made for unrecorded debt, and probable growth in the next 5 to 10 years.

2.2. PRIVATE DEBT IN RELATION TO PUBLIC DEBT. In this volume, the problem of *private* debt is not discussed. We should, however, keep in mind the size of the private debt and its fluctuations in relation to public debt; and in measuring debt burdens, we should not be un-

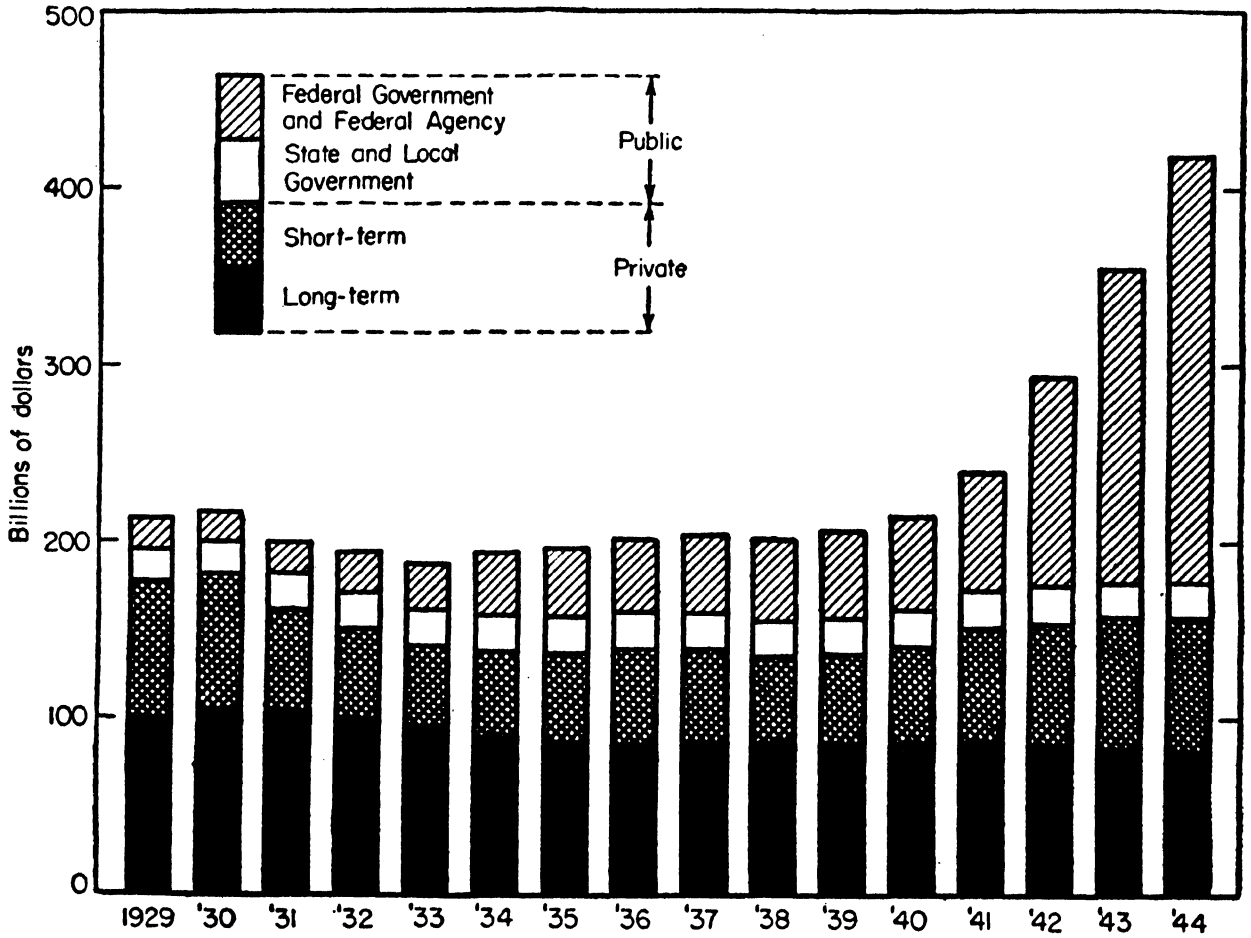


CHART 2.—Gross debt and its component parts 1929–1944, end of year. (*Source: U.S. Department of Commerce.*)

mindful of the significance of price and income levels. From 1929 to 1944, for example, all debt roughly doubled, but private debt declined by about 10 per cent[1] (see Chart 2). Since prices in 1929 and 1944 were roughly equal and since the national income in 1944 was twice as high as in 1929, we might conclude that the burden of debt had clearly not increased. The reader, however, must not assume that we have exhausted the problem of debt burden with this preliminary statement. In fact, this volume in effect concerns little but the debt burden and its broad ramifications.

[1] *Cf.* A. Slater, "U. S. Debt Pattern in War and Peace," *S.C.B.*, September, 1945, pp. 8–18, especially pp. 10 *ff.*

2.3. OTHER FORMS OF INDEBTEDNESS INCLUSIVE OF OBLIGATIONS UNDER SOCIAL SECURITY AND INSURANCE—UNPUBLISHED DEBT. Our federal debt is, we should keep in mind, exclusive of almost $20 billion state and local indebtedness; of the heavy obligations under social security against which corresponding assets or revenues have not as yet been provided; and of the subsidies under G.I. insurance, which will cost the government many billions of dollars.

If the government assumes an obligation to pay $135 billion of insurance, and payments provided plus interest are only $110 billion, then the government has contracted a debt of $25 billion. But the government actuary is unable to estimate what the deficit will in fact be.[1] Once payments exceed disbursements, the Treasury will have to find the wherewithal to cover deficits. If they are met out of additional taxation, then the additional debt is wiped out; but until the means of financing is provided, the government's debt is larger than published figures would indicate. And parenthetically, similar considerations relate to the social-security program. An indication of the obligations assumed may be had from the following. In order to put the old-age insurance program on a self-financing basis, the government in 1935 proposed to accumulate a reserve of $57 billion. But in 1939, despite liberalization of benefits, the government decided to whittle down reserves. Under current legislation, a reserve even of $20 billion is unlikely. (Late in 1946, the reserve was more than $8 billion.) The discrepancy between 57 and 20 billion dollars gives some indication, though an inadequate one, of the unbalance between receipts and liabilities on old-age insurance account. This difference must be made up out of taxes yet to be provided.

The bondholding reader must not become unduly alarmed at this. A debt of, let us say, $100 billion payable in the next 100 years has not the same urgency as today's debt of $100 billion. As to the part that is due 100 years hence, we may largely write that down. A sum of $1,000 due 50 years from now (assuming a rate of interest of 4 per cent) is worth only $141 today. One thousand dollars due one year from now is

$$\text{worth } \$960 \text{ today } (= 1{,}000 - \tfrac{4}{100} \times 1{,}000);$$

due two years from now, $921.60 ($960 - \tfrac{4}{100} \times 960$); and so on. If obligations due in the distant future were not discounted in this manner, one could add up the excess of obligations over revenues for the next 1,000 or 1,000,000 years and compute a debt that would be staggering.

[1] Letter from R. R. Reagh, government actuary, to author. Apr. 29, 1946.

THE CONCERN OVER THE PUBLIC DEBT

2.4. EARLY PREJUDICES AGAINST DEBT. Although we cannot, of course, state the exact amount of our public debt for the years ahead, we can be fairly certain that it will be large. It may be between 275 and 300 billion dollars, or between 325 and 350 billion dollars. Whatever the exact figure, to the average American a public debt of this magnitude seems like a crushing weight. Almost from birth we have been taught to abhor personal debt and to shun it. Our school copybooks abounded in maxims against debt; in school and at home we were taught the adages of our national sages against debt. Benjamin Franklin said: "The second vice is lying, the first is running into debt."[1]

In effect, from the start we are against debt in general—personal and public—and against public debt before we know anything about it. In addition, we contrast the amount of our public debt with our whole prewar national income of $70 billion, and the burden seems intolerable. Compared with our national wealth of between 300 and 500 billion dollars, it seems as though our wealth were almost completely mortgaged. We can envisage the public debt as growing in snowball fashion as new demands are made upon the government, the more so because increased interest payments may ultimately not be covered by taxation. It is thoroughly understandable then, why, of all economic problems the question of the public debt excites the most public alarm.

THE DEBT PSYCHOSIS: AN EXPLANATION

2.5. THE PROBLEMS ARE INTRICATE AND CANNOT BE FULLY UNDERSTOOD EVEN BY THE INTELLIGENT MINORITY. Our public debt should not, and cannot, be lightly dismissed. The sums involved are vast and the repercussions serious; the technical complications are not easily understood; transfers from taxpayers to *rentiers* raise difficult, if not insoluble, economic and political problems; and the relation of the amount of public debt outstanding to the supplies of money in the economic system, and hence to national income, is intricate and confusing.

Granting all this, the public, nevertheless, seems overalarmed by the public debt. The average American, not understanding the issues, is misguided by his intuitions and by alarmists. The parallelism of

[1] *Proverbs from the Almanac of One Richard Saunders* (Benjamin Franklin), p. 20, 1908; cf. p. 25 and *Benjamin Franklin's Way to Wealth and William Penn's Maxims*, p. 19, 1834.

private and public finance is false. Many a citizen will never be able to understand fully the problem of the public debt, for it is too complicated for the average layman. On these technical matters he will have to accept the word of the experts, as he does on many other important public issues—not many laymen understand the theory of the release of atomic energy, or radar, or the functioning of our monetary system.

2.6. THE ECONOMIST'S RESPONSIBILITY IS TO SPREAD TRUTH AS WELL AS TO FIND IT. There are some who lose from a growing debt, and there are some who gain. The appropriate policy which the economist should support is that which on balance will yield the maximum satisfaction to 140 million Americans—this does not mean the maximum satisfaction to 10 million entrepreneurs or to 60 million members of the labor market. It means, to repeat, a policy that will serve the maximum interest of all our population.

On economic subjects, the economist is content to leave the field of journalism to the professional journalist, to the professional popularizer, and increasingly to propaganda organizations. His apathy is censurable. (We hasten to add that the propaganda organizations indeed do some excellent work, but we must also remember that they generally represent the groups who provide the funds.)

Most economists are disposed to devote all their energies to the search for new truths, spurning the job of popularization—perhaps as beneath their dignity. This attitude not only does society a disservice, but also reduces the value of their contributions. The greatness of Ricardo, Marx, and Keynes rests not only in discovering new truths, but also in their passion for debate, reiteration, dissemination, etc. Can the world afford the luxury of tens of thousands of economists seeking new truths without an adequate number willing to popularize them so that laymen can have available the clarification of the issues—and this from a disinterested viewpoint? Is it wise to allow quacks, "kept" economists, propaganda economists, and even able and honest journalists and radio commentators to monopolize the task of marketing ideas to legislators, to the public, and to the world?

THE BUSINESSMAN'S FEARS

2.7. TREATMENT OF EXCESSIVE FEARS. Let us now consider the businessman's attitude. There is little doubt that the average businessman is even more deeply alarmed by our growing public debt than the general public. In the expansion of the public debt he sees future

tax burdens on business enterprise which, he forecasts, would discourage investment, invite a crippling inflation, or cause national bankruptcy. Whether these fears are exaggerated or not—they undoubtedly are—is secondary to the fact that the businessman is frightened. To ridicule these fears is not the correct approach. When a person worries excessively with bad effects on his health, the physician tries to discover the cause. He then tries to show the patient that his fears are not justified, that they are exaggerated, or, if there is a substantial justification, that worrying does not help matters but rather may tend to bring about the very condition, *e.g.*, ill health, which the patient dreads. In a similar manner, it is the economist's task to examine the problem of a rising debt and investigate its dangers, to point out the harmful effects on business enterprise of exaggerated fears, and in particular to stress the fact that fear and doubts are certain finally to bring the very economic collapse that we all are anxious to avoid.

2.8. THE BUSINESSMAN AND THE PUBLIC DEBT. The writer has talked with many businessmen concerning the public debt, and with regret he must acknowledge that with few exceptions their panicky attitude toward our national debt is based neither on understanding nor on adequate analysis of the problems involved. Few businessmen can, or will, discuss intelligently the *income* effects of accumulation of public debt and its financing, the monetary repercussions of debt accumulation and repayments, the fiscal aspects, and so on. These aspects of the question are requisite for an elementary grasp of the question, and yet there are few businessmen who, by training or temperament, are prepared to deal with them.

It is hoped that this book will help clarify such issues as these. The job of the businessman is to make profits: to produce in the largest possible quantities and at the lowest possible price. It is true that his task is not to analyze the functioning of the economic system. Yet when his views on large public issues, prompted mainly by exaggerated or unfounded fears, discourage business enterprise, he is in that sense ill and needs treatment. As part of the treatment, a little homework on the public debt is prescribed for him.

OCCASION FOR GROWTH OF PUBLIC DEBT

2.9. PUBLIC DEBT PRIMARILY ASSOCIATED WITH WAR—BUT WAR DEBT WRONGLY LABELED DEAD-WEIGHT DEBT. The largest part of our

public debt has been incurred as a result of war. Few object to debt associated with waging of war, though many would prefer heavier tax burdens and economies in expenditures, which would moderate the rise of debt in wartime. Wartime debt has been called "dead-weight debt" because, as has been stated, it does not contribute income as an offset to its cost. Actually, even the accumulation of this type of debt yields income. The reader should consider against the $209 billion rise of debt in 1940-1945 the accompanying rise of about $450 billion in wartime gross income above the 1930–1939 level. More than any other factor, the guaranteed market offered by the government for products and services—a market backed up largely by cash created for the Treasury—accounted for the rise of wartime income. In the calendar years 1940–1945, the government accounted for 365 out of 987 billion dollars of total spending.[1] Spending for war, furthermore, provided new plants, large amounts of other types of government property (*e.g.*, raw materials, ships), an accumulation of liquid assets (which should contribute potential high demand in the future), and technological developments—all of which may well make important contributions to postwar income. It is not exactly accurate, then, to label war debt "dead-weight debt"; for though the debt was higher, money and *real* income rose in response to the growing debt.

2.10. ATTITUDE TOWARD DEBT ORIGINATING IN PUBLIC IMPROVEMENTS. The public will also readily accept an expansion of debt to finance schools, sewage system, roads, etc. In part, the resulting assets will yield revenue directly—*e.g.*, with new roads, gasoline taxes provide increased revenues. In part, compensation is had indirectly through the rising income that is associated with a healthy, educated citizenry; although noneconomic gains cannot be appraised in dollar terms, these benefits to society are important.

2.11. DEBATES ON PUBLIC DEBT ORIGINATED FOR THE PURPOSE OF RAISING OR SUSTAINING DEMAND. For the most part, we are agreed that a large public debt is unavoidable in war. The differences of opinion on the public debt, and most of the *recent* spirited debate on it, center about peacetime expenditures: Are peacetime expenditures necessary to sustain demand or (and) to establish minimum standards of living? The debates deal with the substantial deficits of the thirties and with potential deficits in the postwar. Should, for example, the government support demand through public-investment programs,

[1] *Treas. Bull.*, April, 1946, p. A-12.

grant subsidies to the social-security program, subsidies to consumers generally? These are important questions which in turn raise fundamental problems such as the province of government, progress vs. security, the conflict of liberty and security, "pure" finance against compensatory finance. In 1945–1946, the debate was highlighted by the controversy over the Murray Full Employment Bill which, in its original form, would have the government assume responsibility for public spending in periods when private spending floundered—object, full employment.

2.12. EARLY GERMAN DISCUSSION OF COMPENSATORY FINANCE. A beginning had been made in Germany, however, in the discussion of compensatory finance. The economist, Wagner for example, proposed that the government borrow in order to employ unused funds in postwar periods and crises.[1] In 1902, Schanz advanced the discussion much further. In prosperous periods, he noted, government issues are depressed in price and government expenditures strengthen expansive forces; in depression, on the other hand, government issues fall in price and the government's budget is contracted. Schanz suggested that in periods of prosperity surplus revenues be hoarded and public securities available at low prices be redeemed, and in depression, loans be issued at low rates and public investments be expanded.[2] Undoubtedly, the absence in Germany of a strong tradition favoring a balanced budget contributed toward the early proposals for compensatory finance.

PUBLIC DEBT AND PUBLIC POLICY

2.13. ORTHODOX VIEWS ON ECONOMIC POLICY AND PRIVATE DEMAND. Economists are by no means in agreement on public policy. Some adhere to the position that a system of free enterprise will work if it is allowed to operate without interference. Some object to monopoly or collusion by business or (and) labor, others to interference by government. In the views of many, restrictionist policies, which provide for high prices and reduced employment, are the primary cause of unemployment. Many contend that full employment and a high standard of living will come from price and wage flexibility, freedom of entry into trade unions and industries, mobility of capital and labor, free trade, and a minimum of interference by government.

[1] A. Wagner, *Finanzwissenschaft*, Part I, p. 157, 1883.

[2] G. Schanz, "Die Frage der Arbeitslosigkeit und die oeffentliche Haushaltsfuehrung," *Zeitschrift für Sozialwissenschaft*, 1902, pp. 47–49.

2.14. THE REFUTATION OF SAY'S LAW. Those who would rely exclusively or predominately on private enterprise to provide adequate income and jobs are increasingly on the defensive. Say's law that supply creates its own demand is repudiated by critics of classical economics. They are impressed by the fact that the goods produced in a given period are frequently not all taken off the market; that failure of demand to equal supply at cost of production will result in losses to business enterprise; that these losses in turn account for further declines in demand and hence in employment; and that, therefore, deficiency of demand must be corrected, and relatively early, if it is not to bring a serious depression.

Failure to buy all the goods produced at profitable prices stems from various causes. It is not necessary to go into them at this point other than to refer to one aspect of the problem. With rising incomes, savings tend to rise. In the middle thirties, for example, at an average per capita income of $500, savings were only $6 billion. In 1944, when average per capita income reached $1,200, individual savings were no less than $40 billion. (At this income level, and under normal conditions, savings might well have been one-third to one-half less.) Clearly, the total volume of savings rises with rising incomes. Whether or not, over long periods, the percentage of savings to disposable income increases with a rising standard of living is not equally clear.[1]

This rise of savings accounts for a corresponding reduction of spending only to the extent that savings do not materialize in investment. Failure to spend the income of a period either on consumption or investment goods reflects in part the increased cheapness of goods associated with technological and managerial advances and, to some extent, failure to reduce prices as much as costs. More important, however, are the institutional factors that account for rising savings with increases in incomes.

2.15. CORRECTION OF DEFICIENCY OF DEMAND THROUGH GOVERNMENT SPENDING. Whatever the cause, a corrective for the deficiency of demand is required. Many believe that the only effective manner of making up for the deficiency of private spending is additional government spending. How to obtain the necessary funds is a further question.[2] If the increased public spending is to be out of *tax receipts*, the rise of government spending must be relatively large in order to

[1] See, especially, Symposium on the Consumption Function, *R.E.S.*, November, 1946.
[2] The alternative of tax remission is discussed in Ch. XVIII.

achieve a given rise of total spending: against the net increase in public disbursements is to be put the adverse effects of additional tax burdens on private spending. In fact, at very high rates of taxation, the objective may not be obtained at all. Although, therefore, the government may contribute to total spending out of additional taxation, the effectiveness of the program is likely to be much greater if it is financed out of sales of government securities to banks or in exchange for idle balances, *i.e.*, through deficit financing of an expansive type. In view of the difficulties of launching large investment programs and of timing the disbursements to offset the oscillations in private spending, the country will have to rely increasingly on increased consumption; and if private spending on consumption does not rise adequately, recourse will have to be had to increased public spending for consumption. Secretary Wallace, in his *Sixty Million Jobs*, envisaged public spending at 35 to 65 billion dollars, the amounts rising in inverse proportion to the amounts consumers and business spend.[1] Yet after ten years of planning public investments, the United States government was prepared at the war's end for 5 to 6 billion dollars of public investments *in toto*—"prepared" is understood to mean plans were ready so that works could be begun in the near future.[2]

2.16. THE MATURITY THESIS. That school of economic thought which recommends public spending frequently stresses that in a mature economy—as ours is described by the stagnationists—oversaving is prevalent. Its opponents, on the other hand, deny that ours is a mature economy and envisage adequate opportunities for private spending, if given a proper political milieu. These critics of the maturity school deny that savings are excessive, that business has little use for outside funds, that the decline in population growth and the disappearance of frontiers account for serious lacunae in the outlets for savings, that large numbers of new industries are *not* on the way.

2.17. AN ALTERNATIVE EXPLANATION: RIGIDITIES IN THEORY AND HISTORY. Deficiency of demand, however, may be explained by factors other than maturity. Business may be slow to translate reduced costs (resulting from technological and administrative gains) into lower prices and (or) higher wages. It is significant that, over the last

[1] H. A. Wallace, *Sixty Million Jobs*, p. 68, 1945.

[2] For state and local government plans through 1945, see Federal Works Agency, *Report on Planned Preparation of State and Local Public Works*, especially pp. 1–7. The total amount of state and local public works involved was in excess of $8 billion; about three-quarters were only in the design stage.

100 years, the *general trend* of prices has been neither upward nor downward. Large increases and declines, particularly in war and postwar periods, did occur; but the net change over those 100 years was small.[1] Thus in 1839, wholesale prices were 83.5; in 1939, 77.1 (1926 = 100). Yet from 1865 to 1939—estimates of income are not available for the years 1839–1865—in stable (1935) dollars, the rise of national income was about eleven times; of population, three times; and hours of work per worker declined by almost one-half. One might have expected the remarkable rise in man-hour output to be reflected in falling prices. Actually, it was taken almost wholly in rising incomes. Price rigidities have plagued us all through our history.

Price rigidities, at least in the last 50 to 60 years, are explained by the large elements of monopoly in our economic life. With significant rigidities, prices remain too high and output is curtailed. Total spending and total employment are lower than they otherwise would be. As we learn to do a given job with less man-hours of output, demand will be insufficient to yield high levels of employment unless strong buying appeals are made to consumers through constant reduction of prices and discovery of new products. With 60 million workers we can obtain a national income in 1947 that in 1900 might have required 150 million workers. And who is to say that by the year 2000 we shall not perform the same task with 20 million workers? Our choice today is, say, between 60 million jobs and a $200-billion gross national product, between 40 million jobs and a $120-billion GNP; in the year 2000 it may be between 70 million jobs and a $400-billion GNP, and 20 million jobs and a GNP of $120 billion.

2.18. APPROPRIATE POLICIES AND ADEQUACY OF DEMAND. If we want the high incomes attainable, we must have price flexibility, a reasonable degree of competition, countless discoveries leading to new products and industries, tax systems that discourage demand a minimum, measures that assure the required mobility of labor and capital, monetary elasticity, which yields the needed supplies of cash at low rates of interest. If these and related measures do not assure incomes adequate to provide work for 90 to 95 per cent of the working population, then there is no alternative but government aid, government deficits, and even government competition with private enter-

[1] The reader should be warned that index numbers over long periods of time are of but limited significance: expenditure patterns change greatly. In particular, the improvementt of manufactured products, not adequately reflected in price movements, are not adequately measured.

prise. That the resulting rise of debt is necessarily harmful to the whole economy is not true.

SOME PERTINENT QUESTIONS

2.19. DEBT POTENTIAL. Several pertinent questions present a logical opening for our study of the public debt and at the same time point the general course our study will take.

Question 1: What size debt can the United States carry and still remain solvent? Can this country carry a $300-billion debt or a $600-billion debt without national bankruptcy? These two figures are not taken at random. The former is a rough estimate of the current public debt, once the full costs of the war are paid; the latter is an estimate of what the debt would be if the government should continue to borrow at the rate of $10 billion per year on the average for the next thirty years. The assumption made in the $10-billion figure is that no additional taxes to cover the growing cost of the debt service would be levied—the interest payments would come from the $10 billion. On this assumption, by 1975 (1) the new borrowings may then be less than the interest payments on the *entire* debt, granting a rate of interest of 2 per cent, or (2) the new borrowings ($10 billion, average) may be much less in the early postwar years and much more later. (On another assumption, *viz.*, that the debt would rise by $10 billion plus interest, the postwar rise of debt would be much more than $300 billion—if we financed increased debt charges out of additional revenue, then the $10 billion annually borrowed would all be available for purposes other than debt financing.)

2.20. SUPPLIES AND PRICES OF SECURITIES. *Question* 2: Can the public debt continue to grow without a serious fall in prices of government securities and, therefore, without a deterioration of the government's credit? When the supply of potatoes increases, their prices tend to fall, and similarly with government securities. But there may be changes in demand conditions. If, for example, money is manufactured for the purchase of securities and if competition of other assets (*e.g.*, issue of private securities) is discouraged, increased supplies may be consistent with rising prices and falling rates of interest.

The government now pays less than 2 per cent on its outstanding debt. That the debt rose by six times in the war period and prices of Treasury issues actually declined is explained by artificially stimulated demand, rise of income, and exclusion of rival claims for investors' fund.

2.21. WHAT DETERMINES PUBLIC DEBT POTENTIAL? *Question* 3: This takes up where Question 1 ends; it poses, more specifically, the issues raised under Question 1. Many estimates of debt potential have been made. But unless they are considered in relation to assumptions of prices, rate of interest, national income, taxes, and the like, these estimates have little significance or value.

2.22. OTHER VITAL QUESTIONS. We have eight more questions, making eleven in all, that point the course our study will follow. They are:

Is the public debt a burden?

Does the accumulation of public debt bring inflation?

Does its repayment bring deflation?

Is public debt growth necessary in order to provide the country with required supplies of cash?

Can the investment markets function without a large public debt?

Does the public debt have to be repaid?

On balance, how does the public debt affect the economy?

Are there approaches to full employment that do not involve the country in rising debts?

2.23. BIAS AND ITS CURE. These are the broad questions that must be answered if we are to understand the problem of the public debt. These questions have no simple yes or no answers, nor can the answers always be precise. As in all studies and discussions of the future, many buts and ifs and informed guesses are inevitable. Yet even this is better than no discussion, for without discussion and study we would approach the future in darkness and uncharted. Although new territory when charted from a distant airplane will on close inspection reveal some uncharted and additional information, one cannot deny that the plane's-eye view was invaluable. Public debt is not all blessing or all curse. On the question of the public debt, our class interests are apt to get in the way of logical conclusions. The payer of large taxes or the risk taker, his mind closed by the heavy tax burden involved, instinctively opposes any rise in public debt not clearly required by the most acute emergencies. He identifies himself with policies that seem to be to his interest but may well be his undoing in the long run. Low-income groups, expecting to profit from government disbursements, will naturally incline to the theory that public debt is costless.

Yet in the final analysis, it is the public, not economists alone, who gives the answers on what is best for our modern economy. Economists can trace the effects of borrowing and repayment on the rate of

interest, prices, investment, employment, the distribution of income, and wealth. But, even on these matters, there will be much disagreement among them. One economist will weight heavily the adverse effects of government investment and taxation on business enterprise; another will stress the rise of money and income associated with public spending. A precise weighting of each factor is not possible. Economists who, like the property-owning class, only see in the rise of public debt a redistribution of income in favor of low-income groups and even a destruction of capitalism will be hostile to the growth of public debt. Their opposition to the public debt may stem not from economic analysis but rather from their social objectives. Similarly, the economist who would advise a better distribution of income and a planned economy might confuse his economic and political analysis.

And we also need the help of the psychologist and the propagandist and the popularizer. We need to be told why businessmen take the attitudes they do on public debts; how propaganda of the press and radio, planned or otherwise, conditions Congress and businessmen to acceptance or reinforcement of fallacious views; and the manner in which they can be educated insofar as they are wrong.

2.24. CONCLUSION. This panoramic chapter has treated of the size of the debt, the exaggerated fears of a growing debt, the need for information and analysis of the debt and treatment of the debt psychosis, the occasion for the growth of debt, and the relation of public policy and the debt.

For practical purposes, we may divide the discussants into three camps:

1. Those who offer the prescription of private enterprise unhampered by government intervention, by restrictions on output, by rigid prices and wages, etc. They generally see no need for further rises in debt and would ordinarily exaggerate the importance of repayment—Hazlitt, Taft, Byrd.

2. Those who accept government responsibility for demand, but see in an early and judicious intervention by government a barrier to cumulative decline and increased governmental underwriting of demand—the Churchill government, Pigou.

3. Those who foresee a long-run deficiency of demand and who, therefore, irrespective of governmental nonfiscal policies, anticipate the need of large contributions by government to spending—Keynes, Beveridge, Hansen.

Chapter III

The Contents[1]

In Chapter I, the over-all picture was lightly sketched in; in Chapter II, several important issues were then shaded in; Chapter III brushes over in monochrome a fairly systematic survey of the contents of this volume. At best a monochrome is a dull affair, and this chapter, without color and values, is admittedly so. In this chapter, the points are noted rather than discussed, the facts are unhighlighted and are unsupported by stated authority. The survey will, nevertheless, be useful especially to a hurried reader: he can get his bearings in the shortest, if not the liveliest, time.

THE CLASH OF VIEWS

3.1. BUSINESSMAN VS. ECONOMIST: FINANCES VS. EMPLOYMENT. Although liberals among businessmen and economists have reconciled many of their differences, they are still in spirited disagreement on fiscal policy. In the matter of a rising public debt, businessmen see only increased competition for private enterprise, a heavier tax burden —most of which, they fear, will fall to business and those in the high-income brackets—an inflationary threat, and ultimate bankruptcy. They see only the possible short-run effects on their financial position of a rising public debt. "How will the public debt effect my pocketbook?" about describes their approach. This self-interest is understandable—but society needs something more to solve the nation's economic ills.

We need to concentrate on the "real" more than on the financial aspects of the problem of the debt, on the deplorable wastage of economic (not to mention human) resources associated with unemployment—the memory of the depression of the thirties is still vivid enough for us not to have to be reminded of the loss of incomes (to

[1] References are generally omitted in this chapter, since most are given in the relevant chapters.

the amount of several hundred billion dollars) this unemployment signified. With loss of income, unemployment brings loss of demand, the indispensable spark we need to start up the reemployment motor. Economists know the favorable effects on output of additional demand; since public spending yields demand and employment, which in turn create additional demand and output, they ask, why not public spending when necessary?

But even if the accumulation of debt were against the interest of business—and it is not at all clear that it is—it would not follow that debt accumulation should, therefore, cease. Many generations have passed since we could depend on the "invisible hand" that guided the entrepreneur to act in a manner consistent with his interest and society's at one and the same time.

A FIGHTING CHANCE FOR THE NEW IDEAS

3.2. THE UNEVEN FIGHT OF THE INDIVIDUAL AGAINST WELL-FINANCED "RESEARCH" ORGANIZATIONS. Because economists today are increasingly disposed to emphasize the favorable effects on demand of appropriate fiscal and monetary policies, perhaps they may seem to be neglecting financial considerations. This is not so. They are fully conscious of the importance of finance from the viewpoint of both production and distribution; they are fearful, however, that an overweighting of the importance of finance may reap results conducive to a much lower standard of living.

New ideas in fiscal policy have not earned the widespread acceptance which, on grounds of logic, might have been expected. The explanation is in no small part the competition, the uneven race among ideas for the attention of the public. Justice Holmes's "market place for ideas" is not one where each position, equally logical and tenable, has an equal chance of presentation, and new ideas on fiscal policy have small chance of being sold in this manner. In the modern world the packaging and dissemination of facts and theories has become a big business. Often sponsored by businessmen, research organizations with vast funds at their disposal are in a position to engage scholars who have views acceptable to their sponsors. These organizations have learned how to process the raw materials of the scholars, how to obtain space and time in the newspapers, periodicals, and radio, which, in turn, are generally predisposed toward accepted rather than new doctrines. Against this united action, the pioneer in

new ideas, the free-lance investigator, wages an unequal fight in the dissemination of his findings.

We may seriously question the soundness of the practice—and the impartiality of the results—when businessmen's research organizations undertake economic research. The days when an individual economist could present unpopular views with a reasonable chance of consideration are gone—recall the unpopular but effective attack of Adam Smith on the mercantilists; or the views of Malthus on demand which, although unpopular, nevertheless received consideration on equal terms with Ricardo's more popular views; or the complaints of the greenbackers and Bryanites in the later nineteenth century. Supporters of unpopular views formerly had a much better chance to reach audiences on equal terms with adherents of popular views than they have today. And who today would say that Smith, Malthus, and Bryan were wrong? In today's setup, the new ideas on public debt are deprived of a fair hearing.

SOME VITAL QUESTIONS

3.3. ECONOMIC. In our study of the public debt, we want to know the debt potential of the country consistent with the avoidance of national bankruptcy and advanced inflation. We want to know about the relation of increasing debt and the rate of interest. We want to know what the accumulation and decumulation of debt does to the economy. We want to know whether or not our monetary system and capital market can function well without a large and growing debt.

3.4. NONECONOMIC. The answers are not easy, and they certainly cannot be precise. Economic considerations alone will not solve the problems. Monetary and income effects of government spending may indeed be examined by the economist. But any decision on public policy must also take into account attitudes toward government planning, government enterprise, the effects on classes and class antagonisms and hence on the political situation, and the relation of public spending and deficits to liberty.

SPENDING VS. SPECIFIC CURES

3.5. SPENDING AND SPECIFIC ATTACKS NOT MUTUALLY EXCLUSIVE. To spur demand and employment, general in addition to specific measures may be taken. Deficit financing may be considered as a

general attack on inadequate demand and employment. In the same manner as saturation bombing, applied to general not particular targets, deficit spending increases demand in general and ultimately should aid all or a large number of the depressed areas and their unemployed. On the other hand, specific measures, on the model of precision bombing, can be introduced: improvement of labor mobility (*e.g.*, establishment of efficient employment exchanges, payment of transportation expenses of workers) and reduction of costs in high-cost industries. The point must be understood that the dichotomy of general vs. specific measures can be carried too far. Deficit spending is a general attack, but insofar as appropriations are made, the attack is also specific. If the government embarks on a billion-dollar public-works project, some consideration is usually paid, in the choice of project, to the incidence of unemployment.

3.6. WHY GENERAL MEASURES ARE POPULAR. Unfortunately, the general measures may not correct all structural maladjustments. Nevertheless, they may be used more often and may prove more practical than specific measures, because of the difficulties of analysis and the time required to effect specific measures. At high levels of unemployment, moreover, the resulting expansion of demand and money will correct many weaknesses in the economic situation, and with considerable effectiveness. When the economic disturbance is great and widespread, general measures will prove more effective than specific ones. To continue the analogy, saturation bombing will be very effective at the start when wide areas are yet to be attacked; but once wide areas have been affected, a switch to precision bombing is made. With 15 millions unemployed, a given amount of government spending will yield relatively many jobs; but with 3 millions unemployed, the contributions to employment of government spending per dollar of expenditure will be relatively small.

ARE DEFICITS REQUIRED IN PEACETIME?

3.7. CAN PRIVATE SPENDING GENERATE ADEQUATE DEMAND? Economists today are divided into two camps: those who believe that, given a proper milieu, private spending can generate enough demand to sustain a high level of employment; and those who believe that, even under the most favorable milieu, serious deficiencies in employment and, therefore, in demand will persist. The issues are in a sense academic, for the required milieu to provide sufficient private spend-

ing is not likely to be achieved in our lifetime. Despite the vigorous efforts of government and economists to break down monopolies, introduce price flexibility, increase trade, improve relations between labor and industry, industry and government, labor and agriculture, the situation clearly has deteriorated rather than improved over the last forty years.

3.8. UNEMPLOYMENT, FINANCE, AND MONEY. An increasing number of economists agree that (1) unemployment of economic resources is undesirable, and that (2) any financial arrangements taken to increase employment should provide the resources to finance any resulting rising debt. Most economists agree on the point—the classicists generally would not agree to this—that any monetary resources obtained by the government are not necessarily at the expense of private spending. Not all cash held by the public is being used—some of this might then be diverted to markets through government action in periods of unemployment, and there is no reason for assuming that the current supplies of money are the optimum amounts—hence the government might well create additional supplies.

3.9. THE MEANING OF PAST RELATIONS OF GROSS NATIONAL PRODUCT AND SPENDING. Of this we can also be sure: we should not count too heavily on spending suggested by projecting past relationships of income and spending into the future; while, in the prewar period, when GNP varied between 55 and 99 billion dollars, the country spent 70 per cent of its *gains* in national income on consumption, one should not assume that an equally proportionate amount will be spent in the fifties. Current spending patterns suggest that the percentage spent will be lower at higher incomes—though with the passage of time standards of living tend to adjust to rising incomes. Similarly with investment: on the 1929 pattern of consumption spending, we need $65 billion of investment at $200-billion full employment income. Should those who move into higher income brackets not save as much proportionately as those already in the bracket, then private spending would be higher than is assumed here. Even the most extreme optimists could not expect private gross investment to account for more than $20 billion year after year without reaching a saturation point. For these reasons, I would discount the optimistic conclusions drawn from the Department of Commerce *Markets after the War* and from the work of the Committee for Economic Development (cf. *American Industry Looks Ahead*).

AMERICAN INDUSTRY LOOKS AHEAD

3.10. ALTERNATIVE FISCAL ROUTES. If we reach the conclusion that fiscal policy is the *sine qua non* for adequate spending, we must still consider how to achieve full employment. There are three alternative methods[1]. Deficit financing through (1) loans expenditures, is to be preferred to (2) deficit financing through tax remission and to (3) recourse to orthodox finance, *i.e.*, rises in both expenditures and revenues. Recourse to orthodox finance, when the expected gap in spending is $20 billion, let us say, raises taxes to an impossible level. Tax remission is also more costly to the taxpayer for a given effect on spending, than loan finance.

DEBTS, MONEY, AND THE BANKING SYSTEM

3.11. ADEQUATE SUPPLIES OF MONEY WITHOUT AN EXPANDING DEBT. Without an expanding public debt, it is unlikely that in the years after World War I the country would have had adequate supplies of money. From 1914 to 1945 total deposits rose from 19 billion dollars to 150 billion dollars, United States government securities held by banks, from less than 1 billion to 101 billion dollars. In other words, sales of government securities to banks accounted for about 80 per cent of the expansion of deposits.[2] If the banks held no government securities, then deposits today might have been around $50 billion instead of $150 billion. (This of course, is on the unrealistic assumption that no other assets would have been substituted.) Growth of the debt then contributed to a required expansion of deposits.

3.12. GREENBACKS VS. INTEREST-BEARING DEBT. Two other issues, developed later in the volume, require comment here. (1) A case is made out against issues of greenbacks in substitution for sales of government securities to banks. Various reasons are adduced for the demonetization of the debt. *i.e.*, the redemption of debt held by banks. One is a saving of interest through exchange of greenbacks for securities held by banks. Disturbance of the money market is the main reason against recourse to greenbacks. Though the writer does not favor the substitution of greenbacks, he does not subscribe to the view that

[1] Sir William Beveridge, *Full Employment in a Free Society*, pp. 142 *ff.*, 1945.

[2] Some allowance is made for increased holdings of other securities by banks in the second half of 1945.

public securities should be kept outstanding in order to maintain the earning power of banks. (2) There is the need of keeping the rate of interest down; for that reason and others, banks should not be paid more than costs and a small profit for the relatively riskless task of buying government securities. At reduced rates, debt potential can be increased greatly without corresponding adverse effects on the economy. In Chapter XXIV, we shall comment briefly on a proposal to pay off debt *pari passu* with increased requirements for circulatory medium.

INFLATIONARY ASPECTS

3.13. INFLATION AND A RISING DEBT IN WAR. That inflation should be averted, is the well-nigh unanimous view of all economists. Many, however, see in a growing public debt an inflationary threat.

In any wartime economy the inflationary threat is great, especially because a large part of the national output is being diverted to war industries. The supply of money and income rises greatly in relation to the supplies of goods made available to the civilian economy. During the war, however, vigorous control programs tended to keep inflation in check, with the result that the distribution of scarce supplies was determined more by government orders than by price movements.

3.14. INFLATION AND DEBT IN PEACE. In peacetime, the expanding debt raises new problems. There is not likely to be the need for monetary expansion as during war, and any increase in monetary activity achieved will largely involve a substitution of new money for money that has become idle. With the expanding output associated with a rising public debt, prices will begin to rise long before full employment is attained. The large growth in monetary supplies will, moreover, remain a threat to price stability, and imposition of vigorous controls will face much more opposition than in wartime.

Under these conditions the peacetime situation will have to be watched by the authorities. They will have to revert to various controls of credit and of inventories, to tax increases, and to repayment of public debt at appropriate times so as to keep the situation in hand. Improved integration of economic policies and better cooperation between the executive and the legislature will be necessary. After

these measures have been taken, any remaining inflationary threat should be weighed against the threat of deflation—a state even more serious to the whole economy. The threat of deflation may be warded off through government spending.

DEBT BURDEN AND PRICES

3.15. THE RELATION OF DEBTS, PRICES, AND PRODUCTIVITY SINCE THE CIVIL WAR. Once a large debt is contracted, one strike is already rung up against falling prices; for with falling prices, the burden of debt in terms of goods rises. Surely the case for declining prices is substantially weakened when account is taken of the subsequent increase in debt burden. In the periods after the Civil War and after World War I, substantial price reductions, accompanied by debt repayments, tended to increase the burden of debt. In the former period, however, unprecedented gains in productivity and large rises in total man-hours of output—the latter associated with important gains in population—more than offset the fall in prices: debt burden declined in terms of man-hours of output, *i.e.*, the financing of a dollar of debt burden cost less in labor in 1896 than in 1873. A million dollars required for debt servicing was worth more in goods in 1896 than in 1873; but the goods required, though more than in 1873, were the product of a smaller number of hours of work than in 1873. In addition, the total man-hours of work had risen; hence the debt burden could be allocated over more man-hours of work.

In the period between the two world wars, however, this country was not favored by commensurate gains in productivity and employment, with the result that the burden of interest on debt contracted in World War I and the repayment of principal were not lightened as after the Civil War. In the future, public policy should seek stable or slightly rising prices; offsets to falling prices in the form of rises in population (or better total man-hours of work) are likely to take place, though not at the rate of the years 1866–1913; and productivity gains may well be at a more modest rate than in the past. Other arguments for falling prices may indeed be made, and in particular, to serve the objective that the gains of technical progress be widely distributed through falling prices; but the rising-debt burden and institutional pressure to raise incomes both weaken the case for falling prices and make their attainment difficult.

THE INTEREST RATE ON THE PUBLIC DEBT

3.16. EXPANSION OF DEBT AT REDUCED RATES EXPLAINED. In the years 1935–1945, despite a rise of public debt of between seven and eight times, the rate of interest fell by one-third. What accounted for this paradoxical sequence? The more important factors were (1) monetary expansion and the accompanying rise of income, (2) the exclusion of rival demands for funds, (3) the increased recourse to short-term issues, and (4) the imposition of price and other controls. In the thirties the absorption of government issues was explained largely by a corresponding expansion of bank deposits; by contrast, in the war period, the rise of deposits was substantially less than one-half of the net rise in federal debt.

3.17. THE CONTRIBUTION OF CONTROLS TO LOWER RATES. An important contribution to reduced rates was made by the system of controls. Price control, in particular, by keeping the cost of the war down and discouraging a flight from fixed-interest bearing securities to commodities, real estate, and stocks, was an essential ingredient in the government's policy of low money rates.

IS THE PUBLIC DEBT A BURDEN?

There is no easy yes or no answer to this question of burden. Because the *rentier* gets what the taxpayer gives, and because the transfer involves no wastage or consumption of resources, some economists contend that the public debt is not a burden. Others, impressed by the taxes paid and oblivious to other effects of the accumulation and financing of public debt, argue as though the burden of the debt were measured only by the amount of taxes levied to finance it. They forget, for example, that if the wartime debt rose by more than $200 billion, gross national income also rose by about $450 billion above prewar levels.

A yes or no answer will not do. If we grant that taxation is a burden, we must qualify the statement with the fact that the net burden of the debt can be assessed only in terms of its total effects. If the effect of taxation on investment and spending are to be considered, then the repercussions of debt accumulation on spending are also relevant. It is necessary to know who pays the taxes and who receives the interest. If the rich pay and the poor hold the bonds, then the effects on spending will be favorable. It is necessary to

know also what the tax structure would have been without a public debt. Only in that manner might its net effect on taxes be discovered.

DEBT, WEALTH, AND INCOME

3.18. EFFECT OF DEBT EXPANSION ON WEALTH. Creation of debt does not destroy wealth. The effects of debt creation and debt financing on wealth should be traced through their effects on income, prices, and the rate of interest. Since debt creation and accompanying policies have tended to raise incomes and reduce the rate of interest, their effects on wealth have been favorable. On the other hand, the adverse effect upon income of tax burdens associated with debt must not be overlooked.

3.19. GROWTH OF DEBT AND WEALTH. In general, the federal debt has grown more rapidly than the country's wealth—the dollar value of its factories, goods, homes, etc. From 1880 to 1945, for example, federal debt rose one hundred times and wealth but ten times. Incomes, however, rose nine times—the rise of national income from 12 to 120 billion dollars (in 1935 dollars) is to be compared with a rise of debt charges of $6 billion. In current dollars, the rise was about twenty times. The reader should be reminded that, accompanying a rise of debt of $210 billion in the war period, income potential of the country's plants increased greatly. Not only is our plant more efficient, but our managers and workers are better trained; and the vast wartime accumulation of liquid assets, a by-product of debt growth, should contribute toward the maintenance of demand, which is a *sine qua non* for a continued high level of output.

3.20. THE ANALOGY WITH INDIVIDUALS' DEBTS DOES NOT HOLD. Finally, the federal debt should not properly be considered as a deduction from the nation's wealth in the same manner as an individual deducts a mortgage from the value of his farm. *If the debt of the federal government is* $300 *billion and our total wealth also is* $300 *billion, it is manifestly absurd to assume that the country has no wealth. With our wealth we can produce an income of* $170 *billion per year, and the annual debt charge is only* $6 *billion.*

3.21. RISE OF INCOME SINCE THE CIVIL WAR. Since the Civil War, *real* national income has on the average doubled every sixteen years. It has required 7, 15, 22, 17, and 17 years, respectively, for successive doubling of our incomes—these figures relate to the years 1863 to

1941. Less favorable results are obtained for the years 1860 to 1935. Yet even in these years, income rose sixteen times and population only 3½ times. Projecting from the interwar years, we obtain an income of $220 billion in 30 years and $330 billion in 60 years, even on very conservative assumptions as to fertility and especially productivity. The future gains will probably be smaller than in the last two or three generations, because the rise in population will not be nearly so large as in the past; besides, limits are set by available resources.

OWNERSHIP OF THE PUBLIC DEBT AND OTHER LIQUID ASSETS

3.22. GROWTH AND DISTRIBUTION OF LIQUID ASSETS. In the war period, the volume of liquid assets, inclusive of those held by public agencies, trust funds, and the like, rose from about 100 to 300 billion dollars. The rise was even more rapid than in national income. For the future, the significance of these $300 billion of liquid assets lies largely in their potential contributions to maintenance of demand.

These assets consist of government securities, deposits, and currency. The latter two, the growth of which is primarily associated with deficit financing, form the first line of defense to cover needs for consumption and investment. Insofar as large amounts of cash and deposits are available, individuals and business, it should be observed, will be less disposed to convert from securities to cash. From 1939 to 1945, the largest relative gains of liquid assets accrued to business, but the largest relative gains in currency and the bulk of the *absolute* rise in time deposits accrued to individuals.

3.23. DEBT OWNERSHIP. The burden of the debt is related to the distribution of government securities and to the tax structure. Government securities still seem to be held largely by higher income groups—and this despite their almost universal distribution. Before the war, the receipts of large income groups from interest *of all kinds* exceeded what they had paid in interest. Receipts of interest, as revealed by tax statistics, throw some light on the distribution of government debt. Available figures on the distribution of government securities (especially the wartime decline of the percentage held by institutions and government agencies and the rise of corporation holdings) and the importance of large bank deposits—banks account for 40 per cent of federal securities outstanding—suggest that the high-income

groups more than held their own. But against this we should allow for the much greater burden of taxes they pay

TAX CAPACITY AND DEBT POTENTIAL

3.24. MEASUREMENT OF TAX CAPACITY. Tax capacity does not lend itself easily to measurement; at best the results will be imprecise. Much depends on the nature and effect of the expenditures, the tax structure, the level of income, and the attitudes of the taxpayer. We are all aware that taxes in the United States have risen greatly in the last few generations—fourteen times from 1860 to 1913 and twenty-three times from 1913 to 1944. But two points, frequently left out of account, should be stressed in particular.

1. Taxes levied for the payment of interest on debt and other transfer payments (*e.g.*, social security) are not so burdensome as taxes that constitute a net drain on the resources of the country—as, for example, when the proceeds are used *by the government* to purchase labor or materials.

2. Tax capacity is related to the income effects of the expenditures.

THE TAX SYSTEM

3.25. THE REVOLUTION IN TAXATION. Since the turn of the twentieth century, the American tax system has undergone a revolution. From 1902 to 1938, the proportion of revenue raised by property taxes declined from 51 to 32 per cent; consumption taxes, from 47 to 30 per cent; while direct taxes other than pay roll rose from 2 to 28 per cent. In World War II, the direct tax burden increased further, both absolutely and relatively. Total tax revenues of even one-half the amount raised in 1941-1945 would have been impossible with the tax structure of 1900.

3.26. SUGGESTED TAX REFORM IN RELATION TO SPENDING. Some experts would reduce taxes on business and also excise taxes—business taxes because of their unfavorable effects on investment, and excises because of their adverse effect on consumption. In the writer's view, the gains from tax reduction for business may not be so great as is frequently suggested. Where the taxed income had been surplus, more funds will be made available to business. But this addition will only contribute to investment on the assumption (not clearly justified) that business funds otherwise would not have been adequate and on the further assumption that other obstacles to investment (*e.g.*, political milieu, labor attitude, the rate of interest, demand) will not

be decisive. Where the business tax is passed on to the consumer, a removal or reduction of the tax may be helpful insofar as prices are reduced correspondingly. (Any favorable effects on investment will be related to the ensuing expansion of consumption—not to an increased availability of funds. And it might be argued then that, since in monopolistic situations the gains may be pocketed by business, it would be better to give consumers direct relief.)

Much can be said for incentive taxation. If the government is to reduce taxes by $5 billion, then it would be well if the concessions were made in a manner to obtain the largest rise of spending. Taxes on income on *new* investment might be reduced, for example. *Insofar as practical*, the income tax might be converted into a general property tax—thus discouraging the evasion of taxation through noninvestment.

WHO PAYS?

3.27. TAX BURDENS AND TAX INCIDENCE. The burden of the tax system may be borne by those who pay the taxes in the first instance, but it is frequently borne by others. To form an estimate of the tax burden, therefore, requires a study of incidence: on whom does the tax fall? According to available studies both in Great Britain and the United States, we conclude (taking into account incidence) that taxes are regressive in lower income ranges (*i.e.*, larger proportionate taxes fall to lowest income groups) and progressive in the high-income groups. In Great Britain, the explanation of regressivity lies in heavy customs and excise duties; in our country, the explanation is property and consumption taxes.

3.28. INCIDENCE OF PARTICULAR TAXES. There is substantial agreement on the incidence of income and estate taxes, but substantially less agreement concerning property and certain business taxes. The incidence of the corporation income tax in particular is not clear. We have much evidence of monopolistic elements, of restricted entry to new business units, and, to some extent, of taxes being passed on to consumers. Even the income tax may be passed on to some extent. As for the pay-roll tax, the classical theory that labor pays is subject to significant reservation.

MANAGEMENT OF THE DEBT

3.29. PROBABLE MOVEMENT OF SECURITIES TO BANKS. Immediately after World War I, the banks deserted the bond market: they were harassed by demands of nongovernmental borrowers and restricted

by inadequate supplies of cash. In the years 1920 to 1940, however, the commercial banks added $13 billion to their investments in federal issues, whereas other investors (exclusive of banks, insurance companies, and federal agencies) disposed of $7 billion.

In the near future, the banks will certainly not desert the market for federal issues: although in the longer run, a redistribution paralleling that of the interwar period may occur, under prosperous conditions, it is not likely to occur. Banks' interest in government securities will be whetted by provision of adequate reserves, by liberal regulations as to the carrying of securities on their books, and by a reduced demand for credit by nongovernmental borrowers. Whereas in 1919 private credit accounted for $25 billion and 70 per cent of the outstanding volume of deposits and money, it accounted for only $22 billion and 34 per cent in 1939, and $22 billion and 14 per cent in 1944. The decline in the holdings of government securities by banks in 1946 does not reflect a reduced interest by the banks themselves but a decision on the part of the Treasury to convert excess cash for issues lodged largely in the banks.

THE REPAYMENT OF DEBT

3.30. UNDER WHAT CONDITIONS SHOULD DEBT BE REPAID? A tolerable tax burden resulting from debt growth may become intolerable if to the cost of interest is added that of repayment. The issues, moreover, are not merely financial: even more important are the monetary and *real* repercussions.

In periods of inflation, the case for repayment is strong because, *inter alia*, purchasing power is destroyed—cash is taken from the taxpayer and used in part to repay debt held by banks. Deposits are thus reduced. In periods of deficient demand, the case for nonrepayment, and possibly for debt accumulation, is equally strong. In the latter case, purchasing power is increased. At moderately high levels of demand, debt reduction under certain circumstances may be appropriate—*e.g.*, if the taxes are levied largely on high-income groups and the bonds redeemed are held by potential spenders.

As a rule, debt repayment is to be avoided in noninflationary periods. The process of repayment would involve the country in a reduction of purchasing power and in rising rates of interest. With the banks of the country holding 70 per cent of their earning assets in government securities, repayment of debt is likely to result in a net

reduction of earning assets (and hence deposits) of banks. If it is mainly short-term issues that are redeemed, the danger of nonreplacement of assets sold to the Treasury is even greater.

3.31. LESSONS OF HISTORY. History bears out this statement: experience in this country after both the Civil War and World War I, and in Great Britain after World War I, suggests some of the dangers of repayment of debt. These dangers, of course, are lessened in periods of rapid growth. In the post-Civil War years, the repayment of two-thirds of the federal debt over a period of 27 years did not prove to be an intolerable burden, but it contributed significantly to monetary stringency. Fortunately, moreover, the tax system operated in such a manner as to encourage repayment in prosperous periods more than in depression. After World War I, the circumstances were not so favorable: growth was not so rapid, sinking-fund principles resulted in bad distribution of repayment over time, and the redemption stimulated speculation. The British experience suggests above all the danger of a policy of dear money, introduced to force the banks to hold government securities and the Treasury to redeem short-term issues.

Thus we reach the end of our general survey of the contents of this volume. It is given to provide the reader with compass bearings. Thus equipped, let us now proceed.

Part II

VIEWS ON THE NATIONAL DEBT

INTRODUCTION

Part I was little more than a distillate of the book, its chapters successively integrating the argument, marking points for special emphasis, and summarizing the contents. Quite possibly Part II, on views might be considered preliminary and perhaps even digressive. Although Part II admittedly is not indispensable reading for an understanding of the problem of public debt, it is the writer's opinion that the reader will be repaid for the time spent.

The opening chapter of Part II examines primarily the views of classical economists on the public debt and lays particular stress on two vital subjects; burden and repayment. It is important to understand the views of classical economists, for only then can we fully conceive the persistence with which nineteenth-century dogma, despite disproof in many instances, is still held today; if we understand the assumptions upon which the classicists built, then we shall know wherein they erred. The next chapter, Chapter V, deals with the divergent views on fiscal policy held by businessmen, on the one hand, and economists, on the other. This clash of views is examined and explained. In Chapter VI an attempt is made to understand why new ideas on fiscal policy so obviously based on sound logic, have failed to make an adequate impression both on those who influence policy and those who make it. In the writer's opinion, the explanation in no small part is that all ideas, equally sound, do not have equal access to the market place of ideas. Vested interests increasingly organize to quarantine new ideas that are unpalatable to them. In no field is this more evident than in fiscal policy.

Chapter IV

Classical and Other Views on the Public Debt

INTRODUCTION

This chapter is not a systematic history of views on the public debt.[1] It should, however, give the reader an adequate idea of economists' views on the subject. In general, economists until very recently considered public debt an onerous burden and a threat to the economy and were sympathetic to repayment. It was not until the nineteen-thirties that favorable features of the public debt began to attract attention, just about a century after Malthus had aroused Ricardo's opposition when he presented arguments, very similar to modern viewpoints advanced in this volume, in favor of the public debt.

Views here are discussed under two topics: burden of debt and repayment. Excerpts from the author under consideration are generally preceded by a brief summary of his views. In a concluding section, I summarize the contents of the chapter and indicate why orthodox economists concentrated on debt burden and favored repayment.

THE PUBLIC DEBT IS A BURDEN

4.1. THE VIEWS OF ADAM SMITH: PUBLIC SPENDING IS UNPRODUCTIVE AND DEBT ACCUMULATION HARMFUL. As might be expected, Adam Smith was no supporter of the public debt: Government is unproductive; it maintains unproductive labor, whereas industry maintains productive labor; funding of the public debt means a corresponding reduction of private capital—these were the keystones of Smith's views on the public debt. A few excerpts from Adam Smith follow.

[1] The reader should also consult S. Matsushita, *The Economic Effects of Public Debts*, 1929, and W. Withers, *The Retirement of National Debts*, 1932.

Wherever capital predominates, industry prevails: wherever revenue, idleness.[1]

The annual produce of the land and labour of any nation can be increased in its value by no other means, but by increasing either the number of its productive labourers, or the productive powers of those labourers who had before been employed.[2]

When we compare, therefore, the state of a nation at two different periods, and find that the annual produce of its land and labour is evidently greater at the latter than at the former . . . we may be assured that its capital must have increased during the interval between these two periods, and that more must have been added to it by the good conduct of some, than had been taken from it either by the private misconduct of others, or by the public extravagance of government.[3]

Because government is unproductive, it is costly without bringing profit to the economy. Smith was not, however, blind to the fact that government does not always stop the economic progress of a nation. "But though the profusion of government must, undoubtedly, have retarded the natural progress of England towards wealth and improvement, it has not been able to stop it."[4]

Though the period of prosperity and improvement of Great Britain has come after the growth of national debt, "the national debt has most assuredly not been the cause of it."[5]

Smith is critical of an author who does

not consider that the capital which the first creditors of the public advanced to the government, was, from the moment in which they advanced it, a certain portion of the annual produce turned away from serving in the function of a capital, to serve in that of a revenue; from maintaining productive labourers to maintain unproductive ones, and to be spent and wasted, generally in the course of the year, without even the hope of any future reproduction.[6]

Smith goes on to explain that though the lenders get interest on which they can again borrow capital for themselves, "this new capital, however, which they in this manner either bought or borrowed of other people, must have existed in the country before, and must

[1] Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* (edited by Cannan), 5th ed., Vol. I, p. 320 (Bk II, Ch. III), 1930.

[2] *Ibid.*, p. 325.

[3] *Ibid.*, p. 325–326.

[4] *Ibid.*, p. 327.

[5] *Ibid.*, Vol. II, p. 43 (Bk. IV, Ch. V).

[6] *Ibid.*, p. 410 (Bk. V, Ch. III); Cannan says that it is not quite clear whom Smith has in mind; probably it is Melon or, less probably, Pinto.

have been employed as all capitals are, in maintaining productive labour."[1] Therefore, from the country's viewpoint, he concludes that no new capital was made available when it was lent. But again Smith is not dogmatic: he admits that the use of capital by the government "does not necessarily occasion the destruction of any actually existing capital."[2]

4.2. RICARDO: FUNDS ADVANCED TO THE GOVERNMENT ARE WITHDRAWN FROM PRODUCTIVE CAPITAL. Ricardo's analysis of the public debt was not unlike Smith's but much more rigid and less compromising. According to him, agriculture, commerce, and business flourish best when not hampered by government interference: distress of business is explained in no small part by the dearth of capital, associated with the growth of the public debt, and with profuse spending by individuals; money spent by the state is withdrawn from the productive capital of the nation; it is the provision of the loan rather than the continued transfers of interest which accounts for the destruction of capital; if public spending is absolutely necessary, then the State should have recourse to taxes, not loans. Yet Ricardo, in contrast to many other writers of the period, would not cancel a public debt; for one man's gain would be another man's loss.

Excerpts from his writings follow: "Agriculture, Commerce, and Manufactures flourish best when left without interference on the part of Government, but the necessity which the state has for money to defray the expenses of its function, imposes on it the obligation to raise taxes, and thus interference becomes absolutely necessary."[3]

Interference by the government is interference by a body of unproductive consumers: servants, statesmen, etc., and, as Ricardo subsequently added: [by] "those who live upon the interest of the national debt."[4]

As the editors of Ricardo's letters to Trower noted, "the distress of industry generally was due to want of the capital absorbed by the Debt. . . ."[5]

Taxes which are levied on a country for the purpose of supporting war, or for the ordinary expenses of the State, and which are chiefly devoted to

[1] *Ibid.*, p. 410.

[2] *Ibid.*, p. 411.

[3] *Letters of David Ricardo to Hutches Trower and Others*, 1811–1823 (edited by J. Bonar and J. H. Hollander), p. 93, 1899.

[4] Ricardo, *Notes on Thomas Malthus' "Principles of Political Economy"* (edited by J. H. Hollander and T. E. Gregory), p. CVIII, 1928.

[5] *Op. cit.*, p. XI.

the support of unproductive labourers, are taken from the productive industry of the country. . . . When, for the expenses of a year's war, 20 millions are raised by means of a loan, it is the 20 millions which are withdrawn from the productive capital of the nation.[1]

Ricardo refers to the following refutation of Melon by Say as "conceived and expressed in the true spirit of the science."

It is true that the general wealth is not diminished by the payment of the interest on arrears of the debt: The dividends are a value which passes from the hand of the contributor to the national creditor: Whether it be the national creditor or the contributor who accumulates or consumes it is, I agree, of little importance to the society; but the principal of the debt—what has become of that? It exists no more. The consumption which has followed the loan has annihilated a capital which will never yield any further revenue. The society is deprived not of the amount of interest, since that passes from one hand to the other, but of the revenue from a destroyed capital. This capital, if it had been employed productively by him who lent it to the State, would equally have yielded him an income, but that income would have been derived from a real production, and would not have been furnished from the pocket of a fellow citizen. . . . [2]

Ricardo was of the opinion that if there must be government spending at all, it should be financed not by loans but taxes.[3] "There must I think be an end of loans."[4] Borrowing makes us "less thrifty."[5]

By cancelling the national debt, one man's income might be raised . . . but another man's would be lowered. . . . It is not, then, by the payment of the interest on the national debt, that a country is distressed, nor is it by the exoneration from payment that it can be relieved. It is only by saving from income, and retrenching in expenditure, that the national capital can be increased; and neither the income would be increased, nor the expenditure diminished by the annihilation of the national debt. It is by the profuse expenditure of Government and of individuals, and by loans, that the country is impoverished; every measure, therefore, which is calculated to promote public and private economy, will relieve the public distress; but it is error and delusion to suppose, that a real national difficulty can be removed, by shifting it from the shoulders of one class of the community, who

[1] *Principles of Political Economy and Taxation* (edited by E. C. K. Gonner), p. 228, 1913.
[2] Quoted by Ricardo, *ibid.*, pp. 228–229 *ff.*
[3] *Letters of David Ricardo to John R. McCulloch* (edited by J. H. Hollander), p. 58, 1895; "It is . . . important to my theory of providing for a heavy expenditure when it arises, by taxes within the year in preference to loans, that I should shew that it is more favourable to the accumulation of capital, to the demand for labour, and to the general happiness."
[4] *Letters to Trower*, p. 102.
[5] *Principles of Political Economy and Taxation*, p. 231.

justly ought to bear it, to the shoulders of another class, who, upon every principle of equity, ought to bear no more than their share.[1]

4.3. J.-B. SAY: GOVERMNENT BORROWS FOR BARREN CONSUMPTION. Jean-Baptiste Say also adhered to the classical tradition. Government borrows to support barren consumption, not so private business. The expansion of debt does not increase the amount of money circulating—what is taken by government is given up by the lender. Wealth consists in "property, not parchment": a rise in public debt is not equal to a rise in property.

There is this grand distinction between an individual borrower and a borrowing government, that, in general, the former borrows capital for the purpose of beneficial employment, the latter for the purpose of barren consumption and expenditure."[2]

People are apt to suppose, that, because national loans do not necessarily occasion any diminution of the national money or specie, therefore, they occasion, not a loss but merely a transfer, of national wealth. . . . "[3]

Great pains have been taken, to find in the system of borrowing, as well as in taxation, some inherent advantage, beyond that of supplying the public consumption. But a close examination will expose the hopelessness of such an attempt. It has been maintained, for instance, that the debentures and securities, which form a national debt, became real and substantial values existing within the community; that the capital, of which they are the evidence or representative, is so much positive wealth, and must be reckoned as an item of the total substance of the nation.[4] But it is not so; a written contract or security is a mere evidence, that such or such property belongs to such an individual. But wealth consists in the property itself, and not in the parchment, by which its ownership is evidenced; therefore *a fortiori*, a security is not even an evidence of wealth, where it does not represent an actual existing value. . . . "[5]

This however, admits of exceptions.

Those who tell us, that the annual circulation is increased by the whole amount of the annual disbursements of the government, forget that these disbursements are made out of the annual products, and are a portion of the annual revenue, taken from the tax-payer, which would have been brought into the general circulation just the same, although no such thing as national

[1] *Ibid.*, pp., 230 *ff.*, *cf.* Ricardo's *Notes on Malthus'* "*Principles*," p. 246.

[2] Jean-Baptiste Say, *A Treatise on Political Economy* (translated by C. R. Prinsep), p. 442, 1827.

[3] *Ibid.*, p. 443.

[4] Say, who previously had mentioned Melon, in the footnote now quotes a publication *Considérations sur les avantages de l'existence d'une dette publique*, p. 8, but without author or year.

[5] *Ibid.*, pp. 444–445.

debt had existed. The taxpayer would have spent what is now spent by the public creditor; that is all."[1]

4.4. JOHN STUART MILL: GOVERNMENT BORROWING NOT NECESSARILY HARMFUL. John Stuart Mill, too, emphasized the losses involved in transferring capital from private enterprise to the government. But his acceptance of the wage-fund theory also led him to approve of government loans if they were provided out of *additional* savings. Some of his remarks seem rather modern. A rise in public loans was justified, for example, if private uses of the capital transferred would have been unproductive. According to Mill, if with additional government borrowing the rate of interest rose, this was evidence that the government was drawing off capital that might have been used productively by private enterprise.

But let Mill speak for himself.

> The loan cannot have been taken from that portion of the capital of the country which consists of tools, machinery, and buildings. It must have been wholly drawn from the portion employed in paying labourers: and the labourers will suffer accordingly.[2]

This, however, admits of exceptions.

> . . . there are other circumstances in which loans are not chargeable with these pernicious consequences: namely, first, when what is borrowed is foreign capital . . . or, secondly, when it is capital which either would not have been saved at all, unless this mode of investment had been open to it, or after being saved, would have been wasted in unproductive enterprises, or sent to seek employment in foreign countries. When the progress of accumulation has reduced profits either to the ultimate or to the practical minimum,—to the rate, less than which would either put a stop to the increase of capital, or send the whole of the new accumulations abroad; government may annually intercept these new accumulations, without trenching on the employment or wages of the labouring classes in the country itself, or perhaps in any other country. To this extent, therefore, the loan system may be carried, without being liable to the utter and peremptory condemnation which is due to it when it overpasses this limit. What is wanted is an index to determine whether, in any given series of years, as during the last great war for example, the limit has been exceeded or not.
>
> Such an index exists, at once a certain and an obvious one. Did the government, by its loan operations, augment the rate of interest? If it only opened a channel for capital which would not otherwise have been accumu-

[1] *Ibid.*, p. 445.

[2] J. S. Mill, *Principles of Political Economy*. Vol. 1. p. 111. 1884.

lated, or which, if accumulated, would not have been employed within the country; this implies that the capital, which the government took and expended, could not have found employment at the existing rate of interest. So long as the loans do no more than absorb this surplus, they prevent any tendency to a fall of the rate of interest, but they cannot occasion any rise. When they do raise the rate of interest . . . this is positive proof that the government is a competitor for capital with the ordinary channels of productive investment, and is carrying off, not merely funds which would not, but funds which would, have found productive employment within the country.[1]

4.5. NEOCLASSICISTS: EFFECTS OF DEBT ARE HARMFUL. The emphasis on the burden of the debt to the exclusion of its advantages continued right up to the nineteen-twenties. In the writings of modern economists, one finds few exceptions to the position that public debt is a burden and little else—relatively little attention is paid to the favorable effects. In fact, this attitude explains the enthusiasm for repayment which we shall discuss in the next section. Even so modern a writer as Dalton viewed the debt with apprehension: the distribution of ownership and of taxes to finance the debt was such as to leave a heavy burden on the nation.[2] Leroy-Beaulieu, H. C. Adams, Pierson, and Seligman were all much more aware of the evil than of the beneficial effects of public debt.[3]

4.6. SOME DISSENTERS. Long before the classicists and also during the period of their predominance, dissenters argued for the expansion of public debts. Bodin, Petty, Melon, Stewart, Voltaire, Pinto, and Alexander Hamilton had all presented arguments in favor of public debt even before Malthus. They put emphasis in particular on the favorable effects upon production and upon the supply of circulating medium.

This is what Melon said: "The debts of a state are debts owed by the right hand to the left, by which the body will be in no way weakened if it has the necessary nourishment and is able to distribute it."[4]

Pinto, writing in the second half of the eighteenth century, was particularly articulate on the beneficial effects of the public debt. Much of what he had to say was crudely mercantilistic and indicated

[1] *Ibid.*, Vol. 2, pp. 480 *ff.*

[2] H. Dalton, *Principles of Public Finance*, 10th ed., p. 253, 1939.

[3] Report of the Committee on National Debt and Taxation, *Minutes of Evidence*, Vol. I, pp. 39, 51, 1927; Vol. II, p. 436; Matsushita, *op. cit.*, pp. 55–56, 71–73; Withers, *op. cit.*, pp. 189, 290, 1932. See also A. C. Pigou, *The Political Economy of War*, pp. 189 *ff.*, 1921.

[4] Melon, *Essai politique sur le commerce*, 1734, quoted in Bullock, *Readings in Public Finance*, p. 822.

a failure to distinguish between gains of money and of wealth. Yet there were important elements of truth also in his writings. He was aware of the contributions of an active monetary circulation to the production and distribution of wealth, of the monetary nature of the public debt, of the ensuing growth of wealth and of the needs of borrowing at low rates of interest, of the rise of demand associated with the expenditures of *rentiers* (he left out of account the adverse effects of higher taxes), of the relation of higher incomes (associated with the rise in spending) to increased tax capacity, of the freedom from need to repay debt, of the growth of income with the rise of debt.

I affirm that the national debt has enriched the nation, and I prove it thus. On every new loan the government of England mortgages a portion of taxes to pay the interest, and creates a new artificial capital, which did not exist before, which becomes permanent, fixed and solid, and by means of credit circulates to the advantage of the public, as if it were in effect so much real treasure, that had enriched the kingdom.[1]

The enormous sum, of which the national debt is composed, never existed at once. This mass has been successively produced with the same specie, by the magic of credit and circulation.[2]

The four millions sterling, annually raised by taxes to pay the interest of the funds belonging to the English, produce at least 15 or 20 millions in circulation, which are laid out for the benefit of industry. The revenues, expended by the rich, undoubtedly enable the inferior ranks to engage in other less considerable expenses with the same money. To suppress one million of revenue, would therefore destroy a circulation of several millions, and diminish the contributive power of the inferior ranks, by at least 20 million in the course of the year.[3]

As the numerary wealth multiplies continually, the national debt gives nourishment to commerce, and becomes the support and remedy of that luxury, to which, in some instances, it gives birth. It has enriched the nation, and enabled her to pay her taxes. From these principles it follows, that former debts have enabled the nation to contract new ones.[4]

Considering the debt as it stands, it is evident that, notwithstanding the immense increase of capital debt since the death of Queen Anne, the burthen immediately falling on the public has not increased in the same proportion. The nation has continued to borrow sums, the interest of which she would have been unable to discharge, if means had not been taken . . . to reduce the rate of interest.[5]

[1] Isaac Pinto, *An Essay on Circulation and Credit* (translated by Baggs), p. 17, 1774.
[2] *Ibid.*, p. 20.
[3] *Ibid.*, pp. 24 *ff.*
[4] *Ibid.*, p. 27.
[5] *Ibid.*, p. 86.

In another publication, more political than economic, Pinto expresses the same opinion.

It must be proved that Holland and England have lost that nominal wealth which forms what is called their national debt; that is to say, that this nominal sum of debt, diminishes so much of their real wealth; and that they are less rich by that sum, than they otherwise would be: and we must be shown how that money has vanished. But the contrary of all this is evident.[1]

Alexander Hamilton should clearly be classified as a modernist in his position on the public debt. He saw advantages in a public debt; he envisaged the country growing up to it; he argued vigorously for an important part to be played by government in the economic life of the country; and he was aware of the relation of public debt to the increased needs for credit.

A national debt, if it is not excessive, will be to us a national blessing. It will be a powerful cement of our Union. It will also create a necessity for keeping up taxation to a degree which, without being oppressive, will be a spur to industry, remote as we are from Europe, and shall be from danger.[2]

He instructed Laurens:

that no nation will have it more in its power to repay what it may borrow than this. Our debts are small . . . insure to this country a rapid progress . . . and a certainty . . . of reducing, in a short term of years, the comparatively inconsiderable debts we may have occasion to contract.[3]

He also wrote that the

National Bank, by uniting the influence and interest of the moneyed men with the resources of Government, can alone give it that durable and extensive credit of which it stands in need.[4]

Besides the advantage of individuals from this arrangement, the active stock of the nation would be increased by the whole amount of the domestic debt, and of course the abilities of the community to contribute to the public wants: the national credit would revive and stand hereafter on a secure basis.[5]

It is a well known fact, that, in countries in which the national debt is properly funded, and an object of established confidence, it answers most of

[1] Isaac Pinto, *Letters on the American Troubles*, p. 64.

[2] T. J. Adams, editor, *Hamiltonian Principles*, p. 147, 1928 (letter to Morris, 1781). See also John C. Hamilton, editor, *Hamilton: Works*, Vol. VII, pp. 27–31, 1850.

[3] Hamilton, *op. cit.*, Vol. II, p. 175, 1850.

[4] *Ibid.*, p. 194.

[5] *Ibid.*, p. 220.

the purposes of money. Transfers of stock or public debt, are there equivalent to payments in specie; or, in other words, stock, in the principal transactions of business, passes current as specie. The same thing would, in all probability, happen here under the like circumstances.

The benefits of this are various and obvious:[1]

There are respectable individuals, who, from a just aversion to an accumulation of public debt, are unwilling to concede to it any kind of utility, who can discover no good to alleviate the ill with which they suppose it pregnant, who cannot be persuaded that it ought in any sense to be viewed as an increase in capital, lest it should be inferred that the more debt, the more capital, the greater the burthens, the greater the blessings of the community. . . . But it interests the public councils to estimate every object as it truly is: to appreciate how far the good in any measure is compensated by the ill, or the ill by the good: either of them is seldom unmixed. . . . Neither will it follow, that an accumulation of debt is desirable, because a certain degree of it operates as capital. There may be a plethora in the political, as in the natural body; there may be a state of things in which any such artificial capital is unnecessary. The debt too may be swelled to such a size as that the greatest part of it may cease to be useful as a capital, serving only to pamper the dissipation of idle and dissolute individuals; as that the sums required to pay the interest upon it may become oppressive, and beyond the means which a government can employ, consistently with its tranquillity, to raise them; as that the resources of taxation, to face the debt may have been strained too far to admit of extensions adequate to exigencies which regard the public safety.[2]

To suggestions of the last kind, the adepts of the new school have a ready answer: Industry will succeed and prosper in proportion as it is left to the exertions of free enterprise. This favorite dogma, when taken as a general rule, is true; but as an exclusive one, it is false, and leads to error in the administration of public affairs. In matters of industry, human enterprise . . . left free in the main; . . . but it may be beneficially stimulated by prudent aids and encouragements on the part of the government.[3]

4.7. MALTHUS—THE OUTSTANDING DISSENTER: GROWTH AND MAINTENANCE OF PUBLIC DEBT PREVENTS GLUTS. It remained for Malthus alone among the prominent classicists to give a decidedly modern tone to the case for the public debt. He held that a large public debt increases production, promotes expenditures, and removes superfluous products from the market. It is "unproductive" consumption, in his view, which assures a higher level of consumption. If the debt were

[1] "On Public Credit" *Op. cit.*, Vol. III, pp. 5 *ff.* Then he shows that the debt provides capital for the country and tends to depress interest rates.

[2] *Works*, Vol. VII, p. 29, 30.

[3] *Ibid.*, Vol. VII, p. 756.

canceled, consumption would decline. The economy profits from the purchases of *rentiers* and from the conversion, through loans to the government, of capital into annual revenues to be used to buy goods. Impressed by the growth of productive powers since 1770, with forcefulness he presented the relevance of national output in assessing debt burden. Yet Malthus did not approve an excessive debt. He dwelt upon the danger of excessive debt, the burden of heavy taxes, and hence admitted that there might be a case for cutting the debt.[1]

It is evident, from Ricardo's quotations, that Malthus thought a high debt might increase production and[2] that he recommended borrowing instead of the high taxation prevalent, "because it will promote expenditures and take off superfluity of our productions." (Ricardo quoting a writer in *The Times*, who, as he puts it, had adopted Malthus' principles.[3])

Malthus, it will be recalled, rejected the idea that "unproductive consumers" were an evil. He wrote as follows:

> With regard to these latter classes, such as statesmen, soldiers, sailors, and those who live upon the interest of a national debt, it cannot be denied that they contribute powerfully to distribution and demand; they frequently occasion a division of property more favourable to the progress of wealth than would otherwise have taken place; they ensure that consumption which is necessary to give the proper stimulus to production; and the desire to pay a tax, and yet enjoy the same means of gratification, must often operate to excite the exertions of industry, quite as effectually as the desire to pay a lawyer or physician. Yet to counterbalance these advantages, which so far are unquestionable, it must be acknowledged that injudicious taxation might stop the increase of wealth at almost any period of its progress, early or late; and that the most judicious taxation might ultimately be so heavy as to clog all the channels of foreign and domestic trade, and almost prevent the possibility of accumulation.[4]
>
> Now the question is . . . whether without such a body of unproductive consumers as those who live upon the interest of the national debt, the same stimulus would have been given to production, and the same powers would have been called forth.[5]
>
> It is, I know, generally thought that all would be well, if we could but be

[1] T. R. Malthus, *Principles of Political Economy*, pp. 374, 401, 1821; *The Grounds of an Opinion on the Policy of Restricting the Importation of Foreign Corn*, p. 38, 1815; but see Ricardo, *Notes on Malthus' "Principles"* (edited by Hollander and Gregory), pp. CVIII–CIX, for Malthus' fear of sudden debt repayment.

[2] Quoted in Ricardo's *Notes on Malthus' "Principles,"* p. 245.

[3] *Letters to Trower*, p. 144.

[4] Malthus, *op. cit.*, p. 371.

[5] *Ibid.*, p. 374.

relieved from the heavy burden of our debt. And yet I feel perfectly convinced that, if a sponge could be applied to it to-morrow, and we could put out of our consideration the poverty and misery of the public creditors, by supposing them to be supported comfortably in some other country . . . the rest of the society, as a nation, instead of being enriched, would be impoverished. It is the greatest mistake to suppose that the landlords and capitalists would either at once, or in a short time, be prepared for so great an additional consumption as such a change would require; and if they adopted the alternative suggested by Mr. Ricardo, in a former instance, of saving, and lending their increased incomes, the evil would be aggravated tenfold.[1]

When Hume and Adam Smith prophesied that a little increase of national debt beyond the then amount of it, would probably occasion bankruptcy; the main cause of their error was the very natural one, of not being able to see the vast increase of productive power to which the nation would subsequently attain. An expenditure, which would have absolutely crushed the country in 1770, might be little more than what was necessary to call forth its prodigious powers of production in 1816.[2]

Without a large expenditure on the part of the government, and a frequent conversion of capital into revenue, the great powers of production acquired by the capitalists, operating upon the diminished power of purchasing possessed by the owners of fixed incomes, could not fail to occasion a still greater glut of commodities than is felt at present.[3]

4.8. THE GERMANS: PUBLIC DEBT A NECESSARY INGREDIENT OF ANY HIGHER STATE ECONOMY. German writers of the second half of the nineteenth century were more disposed to stress the productive aspects of public borrowing than were the classicists. Dietzel submits that government consumption is a thoroughly productive form of consumption, that the state is a part of the immaterial capital of society, and that loans are productive and serve to conserve and increase the fixed national capital. Similar views were expressed by von Stein and Michaelis. Wagner was also prepared to support loans for extraordinary purposes, but he was less disposed than other German writers to find gains in a growing public debt. He was receptive to borrowing by the state from "disposable" capital. On the whole, he was nearer the classicists than many of the other German writers of this period.[4]

[1] *Ibid.*, pp. 375 *ff.*; *cf.*, also, Letters from Malthus to Ricardo quoted in J. M. Keynes, *The General Theory of Employment, Interest and Money*, p. 363, 1936.

[2] Malthus, *Principles*, p. 388.

[3] *Ibid.*, p. 397.

[4] Adolf Wagner, *Finanzwissenschaft*, Teil I, 1883; *Die Ordnung des oesterreichischen Staatshaushaltes*, 1863; Carl Dietzel, *Das System der Staatsanleihen, im Zusammenhang der Volkswirtschaft betrachtet*, 1885; Lorenz von Stein, *Lehrbuch der Finanzwissenschaft*, 1875; Otto Michaelis, *Volkswirtschaftliche Schriften*, II, 1873.

Dietzel wrote as follows:

> The public loan is thus, as it were, an institution in which capital owners form an association. Each contributes his capital in the bulk, as soon as he cannot put it to better use. . . . In this way the system of public loans forms the highest degree of the development of the national economy imaginable under the given circumstances of humanity.[1]

Stein considers the public debt as "neither a blessing nor a curse, but simply as an organic element of the life of the state," and therefore "a necessary ingredient of any higher state economy; a state without a debt either does too little for its future, or it demands too much from its present."[2]

Wagner was more cautious in his appreciation of public borrowing than either Dietzel or Stein; but in certain cases, and especially when there is a danger of capital resources going to waste through speculation or mere nonuse, he would put them to work: "Loans out of disposable capital, assuming the use to be permissible, are to be approved."[3] "When capital is wasted in speculation, loans can help avoid crises; also, in post-boom periods when business is slackening, loans then sip up capital, and therefore are preferable to taxation."[4]

Wagner disagrees with Dietzel, who always preferred loans, but maintained that the opposite theory, which called all government expenditure "unproductive consumption," was even wider of the mark. One of Wagner's great achievements undoubtedly was that he linked government spending to cyclical fluctuations.[5]

PUBLIC DEBT SHOULD BE REPAID

4.9. THE SINKING FUND VIEWED BY CLASSICISTS AS A DEVICE FOR INCREASING WASTEFUL PUBLIC EXPENDITURES. In the latter part of the eighteenth and the early part of the nineteenth century, there was much discussion of repayment of debt. The controversy centered largely around the use of sinking funds as a technique for automatically reducing debt. Classical economists in general did not approve of the sinking-fund principle. They stressed the diversion of sinking funds to current unproductive uses, the resulting expansion of the budget,

[1] Dietzel, *op. cit.*, pp. 203–204.
[2] Von Stein, *op. cit.*, p. 716.
[3] Wagner, *Finanzwissenschaft*, Teil I, p. 156.
[4] *Ibid.*, p. 157.
[5] *Ordnung*, p. 22.

a preference for repayment through an excess of revenue over expenditures, not obtained by the establishment of a sinking fund.[1]

No sinking fund can be efficient for the purpose of diminishing the debt, if it be not derived from the excess of the public revenue over the public expenditure. It is to be regretted that the sinking fund in this country is only such in name; for there is no excess of revenue above expenditure. It ought, by economy, to be made what it is professed to be, a really efficient fund for the payment of the debt. If, on the breaking out of any future war, we shall not have very considerably reduced our debt, one of two things must happen, either the whole expenses of that war must be defrayed by taxes raised from year to year, or we must, at the end of that war, if not before, submit to a national bankruptcy; not that we shall be unable to bear any large additions to the debt; it would be difficult to set limits to the powers of a great nation; but assuredly there are limits to the price, which in the form of perpetual taxation, individuals will submit to pay for the privilege of merely living in their native country.[2]

Alexander Hamilton, curiously enough, succumbed to the sinking-fund theories of the day. In his view, excessive accumulation of debt might be averted through setting up a sinking fund, the terms of which should be determined at once and should be subject to revision only upon the approval of creditors. Yet he was strongly opposed to rapid repayment of the public debt—he pointed out the effects on monetary supplies, and was very critical of those who paid lip service to debt repayment and yet would not consent to an increase in taxes.

With the *creation* of debt, should be incorporated the *means* of extinguishment; which means are twofold: 1. *The establishing, at the time of contracting a debt, funds for the reimbursement of the principal*, as well as for the payment of interest within a determinate period. 2. The *making it a part of the contract*, that the fund, so established, shall be inviolably applied to the object.[3]

That the attempts to pay any of the past debts would form so heavy a deduction from the greatest revenue which can be raised, as would totally obstruct all present service. Wherefore, the provision to be made at present,

[1] *Cf.* R. Hamilton, *An Inquiry Concerning the Rise and Progress, the Redemption, Present State, and Management, of the National Debt of Great Britain*, especially pp. 9, 45, 109, 114, 117, 1816; A. Smith, *Wealth of Nations*, Vol. II, pp. 401, 406; E. Cannan, "Ricardo in Parliament," *E.J.*, 1894; D. Ricardo, "Essay on the Funding System," in *Works* (edited by J. McCulloch), p. 520, 1846; *Principles of Political Economy and Taxation* (edited by McCulloch) pp. 149 *ff.* 1846; *Letters to Trower*, pp. 82 *ff.*; *Letters to Malthus*, p. 62; J. B. Say, *Treatise* p. 450.

[2] Ricardo, *Principles*, pp. 149 *ff.*

[3] T. J. Adams, editor, *Hamiltonian Principles*, pp. 147–148, 1928. ("Report on the Public Credit," 1795.) See also John C. Hamilton, editor, *Hamilton: Works*, 1850, Vol. II, pp. 212 *ff.*; Vol. III, pp. 41 and 501, 1850.

ought to be confined to the interest of the public debts. That such provision would afford eventual relief to the public creditors, and enable them to support their share of the public burthens, without appropriating the whole revenue, which can be drawn from the people, and leaving thereby the public service unprovided for, which would involve the ruin of all ranks, whether creditors or others.[1]

It shall not be denied, that the immediate payment of our whole debt, if practicable, would be likely to be injurious in various ways. It would, in the first instance, produce a money-plethora (if the phrase may be allowed), which experience has shown to be inauspicious to the energies, and especially to the morality and industry of a nation. The quick efflux of this money to pay a considerable part of the debt in the hands of foreigners, and to procure from abroad the means of gratifying an increased extravagance, would, after some time, substitute a too great vacuity for a too great fulness; leaving us to struggle with the bad habits incident to the latter state, and with the embarrassments of a defective circulation. To these, other reasons might be added, which, though equally just and solid, are omitted as being more liable to dispute. Though an extreme case is here presented, the immediate reimbursement of the entire debt; yet it must be admitted, that the same considerations are applicable in a less degree to a summary, or very rapid repayment by large installments. But the answer to all this is, that it would have been full time to adopt precautionary measures against evils from such a source, when experience had realized the danger. Till such a time it is certainly the highest wisdom to continue the employment of a fund which is already provided, and without overburdening the people, for the all-important purpose of exonerating our nation from debt, and of placing it in a condition, with competent resources to meet future contingencies which may threaten its safety.[2]

To extinguish a debt which exists, and to avoid the contracting more, are ideas always favored by public feeling and opinion; but to pay taxes for the one or the other purpose, which are the only means of avoiding the evil, is always, more or less, unpopular. These contradictions are in human nature; and happy, indeed, would be the lot of a country that should ever want men ready to turn them to the account of their own popularity, or to some other sinister account. . . . Hence, it is no uncommon spectacle to see the same men clamoring for occasions of expense, when they happen to be in unison with the present humor of the community, whether well or ill directed, declaiming against a public debt, and for the reduction of it as an abstract thesis; yet vehement against every plan of taxation which is proposed to discharge old debts, or to avoid new, by the defraying expenses of exigencies as they emerge.[3]

4.10. JOHN STUART MILL AND OTHER CLASSICISTS ON REPAYMENT OF DEBT. Classical economists in general favored repayment of debt

[1] Hamilton, *op. cit.*, Vol. II, p. 232. (Resolutions by Congress.)
[2] *Ibid.*, Vol. VII, p. 754.
[3] *Ibid.*, Vol. III, p. 501.

because the taxes required to finance debt were held to be a burden on society. Smith's view on repayment and funding, however, as usual is a sober compromise: the sums needed for these purposes might have been used more productively.[1] Ricardo develops a theory of his own. He violently attacked the sinking-fund principle,[2] but favoring repayment,[3] he suggested another way—a revolutionary way of ridding the country of its debt: assessment upon the wealth of the country.[4]

In neoclassical literature, emphasis was put also upon the encouragement given to the unproductive *rentier* class to live on the country.[5] Mill, however, though in principle opposed to a national debt, proposes remission of taxes as an alternative and thus presents a quite modern treatment of the subject.

When a country, wisely or unwisely, has burthened itself with a debt, is it expedient to take steps for redeeming that debt? In principle it is impossible not to maintain the affirmative. . . . Two modes have been contemplated of paying off a national debt: either at once by a general contribution, or gradually by a surplus revenue. The first would be incomparably the best if it were practicable; and it would be practicable if it could justly be done by assessment on property alone. If property bore the whole interest on the debt, property might, with great advantage to itself, pay it off; since this would be merely surrendering to a credit or the principal sum, the whole annual proceeds of which were already his by law; and would be equivalent to what a landowner does when he sells part of his estate, to free the remainder from a mortgage. But property, it needs hardly be said, does not pay, and can not justly be required to pay, the whole interest of the debt. Some indeed affirm that it can, on the plea that the existing generation is only bound to pay the debts of its predecessors from the assets it has received from them, and not from the produce of its own industry. But has no one received anything from previous generations except those who have ucceeded to property? . . . Those who are born to the ownership of property have, in addition to these common benefits, a separate inheritance, and to this difference it is right that advertence should be had in regulating taxation. . . . Let it be determined directly and openly what is due from property to the state, and from the state to property, and let the institutions of the state be regulated accordingly.

[1] Smith, *op. cit.*, Vol. II, pp. 410–414.

[2] Ricardo, "Essay on the Funding System," in *Works* (edited by McCulloch), pp. 538–548, 1871.

[3] *Ibid.*, p. 545: "To pay off the whole, or a great portion of our debt, is, in our estimation, a most desirable object." *Cf.* also p. 149; also, *Letters to Trower*, pp. 74, 96, 110.

[4] *Cf.* McCulloch, in his Introduction to Ricardo, *Works*, (edited by McCulloch), p. 28; Cannan, *op. cit.*, p. 421 *ff.*

[5] *Cf.* Withers, *op. cit.*, pp. 19–22 for views of modern classicists on retirement of public debt.

Whatever is the fitting contribution from property to the general expenses of the state, in the same, and in no greater proportion should it contribute towards either the interest or the repayment of the national debt. This, however, if admitted, is fatal to any scheme for the extinction of the debt by a general assessment on the community.[1]

In a country advancing in wealth, whose increasing revenue gives it the power of ridding itself from time to time of the most inconvenient portions of its taxation, I conceive that the increase of revenue should rather be disposed of by taking off taxes, than by liquidating debt, as long as any very objectionable imposts remain.[2]

4.11. H. C. ADAMS: INJURY IS DONE BY CONTRACTION OF LOAN, NOT BY ITS EXPUNGEMENT. In a deservedly well-known book on public debt, H. C. Adams wrote:

The payment of the principal of a debt tends neither to impoverish a nation nor to retard its material development; but, on the other hand, the maintenance of the principal and the constant payment of accruing interest tend to cripple the productive capacity of any people . . . somewhere in the course of deficit financiering—either at the time the debt was established or during the period that it was carried, or at the date of its payment—a loss is sustained chargeable to the adoption of the loan policy. Should one reason from the analogy of private debts, he will conclude that this burden is borne at the time when the debt is paid; for when an individual debtor clears himself of obligations, he loses control over a certain amount of capital, and consequently lessens his importance as a member of industrial society. But such reasoning can not be applied to the state.[3]

It would of course be incorrect to say that this transfer (through taxation, to state) of money from one set of citizens to another does not in the least disturb capital, for possession of money is the evidence of ownership of capital; but it may be rightly claimed that it does not destroy capital. . . . If the new masters of capital are as enterprising as the old, the nation loses nothing by the payment of its debt. This is the explanation, and in the explanation lies the defense of the proposition that the payment of a public debt does not necessarily impoverish a nation. The injury to industrial society is worked by the destruction of capital at the time the loan was contracted. . . . It is a fallacy to argue that the expungement of public obligations destroys capital. But how is a people impoverished by the maintenance of the principal of a debt? In so far as bondholders live from the proceeds of their bonds, they form a class not immediately interested in current industries. . . . Such persons are guaranteed a living without labor. There is but one way in which the government may escape the necessity of supporting in idleness this class, and that is by paying its members their respective claims. The bondholders would

[1] Mill, Vol. II, pp. 483 *ff.*
[2] *Ibid.*, p. 486.
[3] H. C. Adams, *Public Debts*, pp. 243–244, 1893.

in this manner be deprived of their secured annuity, but they would in its stead hold a sum of free capital; and if they wish to continue in the enjoyment of an income from their property they must apply their funds to some productive purpose. In this manner the country gains by bringing to bear upon industrial affairs the interested attention of those who formerly were secured a living from the proceeds of public taxes. . . . It is for such reasons as these that we conclude that the policy of debt payment vigorously prosecuted will assist rather than retard industrial development.[1]

4.12. KEYNES ON REPAYMENT. In testifying before the Colwyn committee, Keynes, as early as 1925, warned the country against premature or excessive repayment of public debt. As is evident from the quoted passages below, he emphasized the following points: repayment should be determined according to the effects upon expenditures and savings; if the demand for gilt-edged securities is large, repayment may well be unwise; repayments in order to conform to sound budgetary principles should be restricted; exchange of cash for government securities would merely encourage conservative investments at the expense of risk taking; the reduction of debt in order to cater to decaying conventions or in order to produce an aesthetic balance sheet was certainly to be decried. In one respect alone might Keynes's position be considered inadequate: he emphasized more the effects on cash going into gilt-edged markets than the general deflationary effects of repayment.

A certain amount of debt should be repaid each year, in order always to have a certain margin in budgeting. But it is not advisable to attempt blindly to repay large sums merely on the ground that the debt is something to be got rid of. This idea is based on false analogy. Repayment of debt out of taxation is partly at the expense of current expenditure and partly at the expense of other forms of saving. The higher the taxation becomes the larger is the proportion which is at the expense of saving. But even that part which is at the expense of expenditure is not necessarily in the public interest.[2]

If we confine our attention to that part which is at the expense of saving, the effect of the repayment of debt is to drive the savings into a particular channel instead of letting them find their own outlet. When holders of debt are repaid they will probably prefer to re-invest the money in bonds of the gilt-edged type. If, on the other hand, the savings are left in the pockets of the taxpayer there is no such presumption, and they may find their outlet either in industry or in any other way. In present conditions, therefore, a rapid repayment of debt affords an artificial stimulus to savings to flow into the channel of gilt-edged investments. At a time when there is a very heavy demand for this

[1] *Ibid.*, pp. 245–247.

[2] *Minutes of Evidence of Colwyn Report*, p. 278.

particular type of investment this may be sound policy. For example, if the Local Loans Authorities, or Borough and County Authorities, are involved in heavy expenditure for housing or public works, which they can only cover by borrowing in the gilt-edged market, then a simultaneous repayment of National Debt by the Treasury may be just the right thing to do. But it is not necessarily right in all circumstances. If the supply of new gilt-edged securities is limited, thus indicating that the demand for capital by borrowers of that type is not extensive, then repayment of National Debt on a large scale may be very harmful. This sort of consideration should weigh more than the mere idea that blind repayment of debt must be good for its own sake. To take money from industry and from individuals by taxation and give it back to the gilt-edged section of the Stock Exchange, regardless of whether there is a ready outlet for it there, is injudicious.[1]

. . . if the State has a demand for the money, if the State is itself in the gilt-edged market as a borrower, directly or indirectly, for productive purposes, then in order to make that productive borrowing easier there is a good deal to be said for paying off the debt. But if there is no natural outlet for the sums released by repayment of debt, then it is a mistake to repay debt.[2]

The committee and Keynes had this exchange on the psychology of debt:

Q. We have been told that there is a psychological effect, that if there is a large Government debt and the Government bondholders are people who are rather apt to look askance at it, money is being wasted by paying interest on the debt, whereas on the other hand if this debt were paid off and the capital were disseminated to industry, the same objection would not quite hold?—I think that state of mind exists to a certain extent. I think it is a relic of mid-19th century sound financial maxims which have extremely little application to the present day. But owing to the fact that the present application is so slight, conventional feelings of that sort gradually disappear. It is unsound to base the policy of the future on the decaying conventions of the past.[3]

Q. I would like to ask how your view regarding repayment would be affected if deflation were taking place rather rapidly and the real burden of the debt charges were increasing in consequence?—I think that would be an additional reason, probably against. But I do not think I should attach so much importance to that argument as to the question of the demand for capital in the form of gilt-edged securities. If deflation was proceeding. I should be more, rather than less, against paying off debt, because we should be repaying the lenders in an appreciated currency.[4]

I think the argument for extinguishing the National Debt is partly an aesthetic argument, that it looks nice to have a clean balance-sheet, and I think it is partly false analogy from private account keeping; an individual

[1] *Ibid.*
[2] *Ibid.*, p. 284.
[3] *Ibid.*, p. 285.
[4] *Ibid.*, p. 536.

likes to be out of debt. But for a nation as a whole it is merely a book-keeping transaction.[1]

4.13. CONCLUSION. Both in classical and neoclassical economic writings, the view prevailed that what is transferred to the government is at the expense of agriculture and industry. In part, the wide acceptance of the wage-fund doctrine explains the ascendency of this position, in part, the assumption of full employment, and in part, the assumption of a fixed supply of money.[2] On this reasoning, then, any rise of public expenditures is necessarily at the expense of private expenditures and private employment; and since the assumption was also made that public spending was unproductive, and private spending productive, it followed that any rise in public spending or in the public debt was harmful. Even as late as 1925, in the hearings of the Colwyn committee, the evils of growing public expenditure and a rising public debt had the almost exclusive attention of the Committee and its witnesses. It is not surprising, then, that debt repayment was almost universally accepted as correct public policy in the nineteenth and early twentieth centuries.

Views on public debt of the nineteenth and early twentieth century can be understood only if the assumptions upon which they were made are clearly grasped. Likewise, changing views can be explained by the progressive development of a theory of public debt which is built on assumptions more nearly corresponding to realities than those made in the past.

We are now prepared to accept Keynes's position as first presented in 1925 and to assume that public spending is productive, or at least as productive as private spending; and if certain types of public expenditures are not productive, public administration can be improved. We are prepared to assume that there are unemployed resources, unemployed money, elasticity in the supplies of money. Therefore, we are aware that transfers of cash to the government may not be at the expense of (1) private monetary stocks, (2) private spending, or (3) resources available for private capital or consumption. Whereas the nineteenth-century classicists assumed full employment and adequate demand, we are much more conscious of the deficiency of demand and the contribution that may be made to output through govern-

[1] *Ibid.*, p. 537. The last paragraph is part of Keynes' answer.

[2] Once inflationary aspects of borrowing began to attract attention, the assumption of a fixed supply of money was necessarily abandoned. Yet even as late as 1930, the relation of public borrowing and purchasing power in peacetime had received little attention.

ment stimulation of demand. (Malthus alone of the important classicists had an inkling of the importance of demand for output and the relation of public spending and public debt to demand.) Finally, keenly aware of the monetary repercussions of debt transactions, we are not so disposed as the classicists to support an all-out policy of debt repayment. Classicists and neoclassicists both were surprisingly neglectful of the monetary aspects of debt repayment—among neoclassicists Keynes was the first to see the problems clearly. With the exception of John Stuart Mill, they were not even disposed to weigh the relative desirability of tax reduction and debt reduction.

Chapter V

The Clash of Views—Businessman vs. Economist

BUSINESSMEN AND ECONOMISTS TOWARD AN UNDERSTANDING

5.1. PROGRESS TOWARD AGREEMENT. In economic issues of the day, economists and businessmen can and do find a measure of agreement on many points. There was a time when there was no meeting of minds between the two groups on matters of tax policy, social security, the rate of interest, monetary policy, and tariffs. But in the last fifteen years, remarkable progress has been made. With the exception of a small recalcitrant group, economists and men of affairs are in substantial agreement. The country owes much to the recent leadership of the Committee on Economic Development and liberal-minded businessmen (*e.g.*, Eric Johnston, Henry Kaiser, Paul Hoffman, Ralph E. Flanders, Beardsley Ruml). Many enlightened industrial leaders acknowledge the need of (1) economic policies that will provide the spending (private for the most part) required to keep employment at a high level; (2) taxes on surpluses; (3) social security as an approach to better timing in spending and as a means both of putting a floor under spending and of relieving distress; (4) freer trade as a road to an improved standard of living and even, to some extent, as a means to a rise in total spending; (5) low interest rates to stimulate investment and discourage excess saving. These problems are fundamental; the agreement between the two groups is encouraging, and must not be underestimated.

5.2. CONTINUED DIFFERENCES ON DEFICIT FINANCING AND PUBLIC DEBT. Important as are the problems on which they agree, encouraging as are the signs of agreement, areas of disagreement on fundamental problems between the liberal-minded industrial leaders and economists still remain, *i.e.*, in public spending and public debt. Here a serious cleavage between the two groups exists.

Since they strongly disagree on broad fundamental issues of fiscal

policy, their differences on public debt do not seem to be easily reconcilable. *It is this conflict of views on public spending and public debt that especially marks the divergence of New Dealer and anti-New Dealer, liberal businessman and liberal economist, labor and business.*

Although the C. E. D. (which, incidentally, deserves credit for bringing together economists and businessmen) is ready to support deficit spending for brief periods, it remains intractable on deficit spending in general. Large numbers of congressmen and conservative newspapers are similarly hostile to and prejudiced against a growing debt in times of peace. An economist has but to suggest that public spending may be the solution of our economic plight and he is made the target of denunciation and harsh editorials. Anyone who advocates public spending as a means out of depression is treated as a pariah by these groups, and his views on other problems, regardless of their true worth, have three strikes against them from the start. Can this clash of views be reconciled, and how?

BUSINESS AND PUBLIC DEBT

5.3. BUSINESSMEN'S FEARS OF A GROWING DEBT. First, let us consider why the businessman reacts so strongly to the growth of public debt.

His greatest fear is that in the process the government will drive him out of business—public spending is in his view either wasteful (*e.g.*, sweeping the dust off major highways) or competitive (*e.g.*, development of public-utility companies).

Again, he sees in debt an obligation, a fixed charge, on the wealth and income of the country. The greater the charge, as he sees it, the greater the danger of bankruptcy.

With a rising debt, the businessman anticipates a growing burden of taxation. And has not the tax burden in recent years increasingly been imposed upon him, he asks. These taxes, he is certain, will make risk taking unprofitable and, in fact, may well take profits out of business altogether. Why, for example, should any businessman, he asks, invest in a corporation and be subject to taxes (inclusive of income tax) of 75 per cent, when on the average he has an even chance of earning 5 per cent? If he receives the anticipated return of 5 per cent, this will leave him 1¼ per cent after taxes. Why not, then, invest his money in government bonds and let it go at that? And he will do so to protect his financial interests, even though thereby he

further encourages government spending, his *bête noire:* the greater the demand for government securities, the lower are the rates on these and, therefore, the greater is the incentive for the government to expand. (A decline in government rates, however, will to some extent reduce the attractiveness for the investor in the government-bond market.) We have, then, discouragement of private enterprise and encouragement of public enterprise.

Our businessman also envisions a period of repayment of debt once a public debt is incurred. Then, to his mind, taxes will be even greater. If, on the other hand, debt is not repaid, he believes that bankruptcy is bound to follow. The interest on the debt will grow, and the time will come when the Treasury will even have to borrow to meet interest payments.

Finally, the entrepreneur sees inflation as the inevitable aftermath. Inflation may, indeed, result if the public on balance sells large amounts of government securities to the banks or forces the government to have large recourse to the banks or the printing press. Following a desertion of the bond market by the public as commodity prices rise rapidly, or as taxes fail to rise as rapidly as prices, or as the debt rises above the limits set by the tax capacity, the government takes recourse to compulsory borrowing from the banks or the printing press. These are real dangers not to be dismissed lightly.

It is not, moreover, merely this theory that confronts the businessman. He recalls that after World War I the French deserted the bond market and Americans abandoned the government bond market. In the growth of public debt in the United States, our businessman thinks he sees a preview of the great German inflation of 1923 or the Greek inflation of 1944; in the latter experience circulation rose to 6½ million million million drachmas; prices doubled every three days—a dollar's worth of drachmas fell in value to $\frac{1}{10}$ of 1 cent if held for a month.[1] We see that his fears of heavy taxation and inflation, though frequently exaggerated, are based to some extent on realities. Yet there are important offsets, as we shall see—in particular, the rise of income and its relation to taxes should be considered.

THE ECONOMIST'S POSITION

5.4. INTERESTS OF BUSINESS AND SOCIETY NOT ALWAYS IN HARMONY. Let us next turn to the economist's view—*i.e.*, the view of the econo-

[1] E. M. H. Lloyd, "Price Control and Control of Inflation," *R.E.S.*, November, 1945, p. 151.

mist who favors public spending when depression makes it necessary.

To begin with, he looks at the problem from the viewpoint of all groups, not just the businessman's alone. This is not meant as criticism of the businessman or praise of the economist: it is merely the economist's job. The businessman has one function in society, the economist another. Few today will readily accept Adam Smith's dictum that the interests of business and society are one; the clash of interests between businessmen and society are immeasurably greater than in 1776. Consider, for example, restriction of output, rigid prices, tariffs, cartels, etc. These measures as a rule are invoked to raise profits, but the measures are not in the interest of the nation. Clearly, the interests of business and society are not *always* in harmony.

5.5. ECONOMISTS CONCENTRATE ON WASTED RESOURCES AND, THEREFORE, ON PUBLIC SPENDING AND ITS INCOME EFFECTS. The economist takes a broader view than the businessman. He sees wasted resources arising from unemployment. Supporting the system of private enterprise, he is nevertheless ready to admit that it does not always work smoothly. He is not averse to, in fact he welcomes, any measures that would reduce the wastage of economic resources—reduction of tariffs, removal of restrictions on output, imposition of price flexibility, a revision of taxes with a view to encouraging both spending and risk taking. But if all these and other appropriate measures do not yield effective use of our resources, then it may be necessary to countenance, even demand, government spending as a means toward full employment.

As stated above, the economist takes the broader view. It is the result of broader training and outlook. In the rise of expenditures, for example, he sees not only the rise of expenditures, but also what it signifies beyond the surface, *i.e.*, the rise of income and wealth that result from it. He is historian enough to know that in the thirties income averaged $55 billion of 1935 purchasing power, and unemployment 10 millions and that wartime income, on the other hand, attained $160 billion (or about $120 billion in 1935 prices), *i.e.*, $65 billion in excess of the average of the thirties. From these two facts it is a logical question to ask: Might we not have had $650 billion additional income in the decade of the thirties or, at least, $300 billion additional had we managed our economy well? (I indicate the lower figure because a large part of the wartime rise is to be explained by the guarantee of markets by the government, by the abnormal rise in hours, overtime, and upgrading. If the economy had continued to gain

in a normal manner after 1929, our income over the thirties might have been $300 billion additional.)

5.6. ECONOMIST EMPHASIZES REAL CONSIDERATIONS; THE BUSINESSMAN, FINANCIAL ONES. The economist considers the *real* problem (*i.e.*, goods, production, etc.) more important than the *financial* problem. Whereas he is interested primarily in production, employment, and distribution of income, the businessman is more inclined, as might well be expected, to concentrate his attention on dollars and on financial obligations. How much is produced, how much unemployment there is, how the *product* is divided—all these are relegated to the background. *Dollars, not tons; debts, not jobs; taxes, not income—these seem only too often businessmen's only guide posts.*

Thus we see the divergence in viewpoint and conclusions of businessmen and economists on public spending and public debt. And although their ideas on the subject currently seem irreconcilable, nevertheless one can take some hope for the future when we review the past—how their past disagreements have been resolved. It is hoped this can be accomplished the easier way, by education, and not the hard way, through the experience of another devastating depression.

Chapter VI

New Ideas and Fiscal Policy

INTRODUCTION

6.1. THE MODERN RESEARCH ORGANIZATIONS AND NEW IDEAS. To many this chapter may seem a digression; needless to say, to the writer it seems not a digression but a stopover on the main track. In this part of the volume, we are concerned with the history of ideas, the clash of ideas, and finally, with the propagation of new ideas. The writer has been impressed by the fact that the new ideas in fiscal policy, and especially the use of fiscal policy to raise output or keep it from falling, have made little headway with businessmen, journalists, congressmen, and other influential groups. Yet these new ideas have had a very significant effect upon the views of economists. Our problem is the lag in understanding and acceptance by noneconomists of this new philosophy.

The explanation is, in no small part, the growing influence of "research" organizations, which concentrate on large public issues. They have become expert in the new, big business of selling ideas. I do not have in mind the National Bureau of Economic Research and similar organizations which are not primarily and directly concerned with public policy. Against the sponsored writer or researcher, the unsponsored wages a losing fight. With the growing influence of research organizations, the propagation of new ideas is discouraged. Businessmen, who sponsor and finance these new organizations, frequently either assume that the interests of business and society are always harmonious, or else through the research organizations, they may frankly press for public policies which will on the whole prove profitable to them, irrespective of their effects on the whole economy. More than anything else the growing influence and effectiveness of many of these modern research organizations, which are primarily interested in public issues—not in collecting new information or supporting new viewpoints—account for the unpopularity with our policy makers of modern views on fiscal policy.

6.2. THE SIGNIFICANCE OF FINANCIAL ARRANGEMENTS. Losses from idle men or machines today cannot be recouped tomorrow. In the view of the modern economist, the necessary financial arrangements can be made which will reduce losses from unemployment. Great fears often have a paralyzing effect, and the fear of financial disturbances must not be allowed in this case to keep us from making an effective use of our economic resources. It is hard to see how anyone can possibly conclude that the country will be better off with a substantially reduced output than with a full-employment output. Yet,

in times of need, that is the conclusion, avowed or unavowed, the opponents of public spending do accept. The problem of public spending boils down to this: When we are heading for a depression, do we want a full-employment output—with public spending—or a substantially reduced output—without spending?

The above is not to say that financial arrangements do not matter, for indeed they do. That financial arrangements raise issues of justice, *e.g.*, the distribution of output, and even affect its volume, is undeniable and although the critics, opponents, and alleged interpreters of the so-called "spending school" accuse "spenders" of denying this fact, this they do not do: the "spenders" do not minimize the importance of the financial aspects of public spending.

The gist of the matter is: Can more adequate financial arrangements be made when income is low, or when it is high? The answer is, when it is high. Consider the three alternatives in Table 1.

TABLE 1.—NATIONAL INCOME, DEBT, AND DEBT CHARGE
(In Billions of dollars)

	Year	National income	Debt	Debt charge
1.	1933	42	22	0.7
2.	1945	160	275	5
3.	2000	320	500	10

SOURCES: (For 1, 2): *S.C.B., F.R.B.,* and *Annual Report on State of Finances.*

Although the figures for the year 2000 are hypothetical, those for 1933 and 1945 are actual; no one could truthfully declare that this country was economically worse off in 1945 than in 1933 (or, under reasonable assumptions as to future income, than it will be in 2000), even though our debt in 1945 (see Table 1) was more than ten times greater than in 1933. In 1933, and 1945 (and 2000), the income after payment of interest was 41.3 and 155 (and 310 for the year 2000) billion dollars, respectively. Which would the reader choose: 1933 with low debt and low income, or 1945 with its high debt and high income?

MONEY IS TO BE USED TO PUT PEOPLE TO WORK

6.3. THE FETISH OF THE GOLD STANDARD AND THE BALANCED BUDGET. Table 1 suggests that the rise of debt cannot be considered irrespective of national income and that, since it plainly should be considered in this conjunction, the costs of financing debt seem small when viewed against the rising income. Our thesis is, then, to emphasize output, employment, and national income and to deemphasize the financial aspects. The thesis is simple, logical, compelling, convincing, and of first-rate importance for the political economist. It has made considerable headway, not only among economists but in other circles, under the leadership of the brilliant late Lord Keynes in England and of Prof. Hansen in this country. *If resources are unem-*

ployed and they can be put to work through the expansion of money on behalf of business, or (failing that) on government account, why not do so? Money is created to serve the people, and its quantity ought not to be determined by the man-imposed rule that the supply of money must always be consistent with an ounce of gold priced at $35. Irrespective of the numbers unemployed, this misconceived law—a man-made law, mind you, not a sacred one received from on high, although falsely accepted as such by some—would prevent business or government from obtaining money to put people to work. Now this, I submit, is stupid policy: to subordinate the economic welfare of a nation to a man-made law—*e.g.*, to subordinate the creation of necessary additional supplies to the assumed need of convertibility of dollars into gold at a fixed price, or to subordinate the economic welfare to the assumed goal of debt stability. It is interesting for the reader to compare statements in Chapter IV by Hamilton and Malthus[1] on the contributions of debt growth to demand.

6.4. DISINVESTMENT IN OLD AND GENERALLY ACCEPTED IDEAS. To renounce what we have learned over the years or what we accept on faith is not easy.[2] But there is another reason, possibly insidious, why the public does not grasp this sensible new approach to current economic problems. Aside from the fact that all ideas are not packaged attractively, nor pushed with equal vigor, the cards are stacked against new ideas and especially when they are unpalatable to powerful special interests. Financial interests and a large element of the press lead in the fight against modern views.

THE INFLUENCE OF SOME RESEARCH ORGANIZATIONS

6.5. SELLING IDEAS HAS BECOME A BIG BUSINESS. Even more disturbing is the rather recent development of vigorous research organizations and the like which make it a business to "sell" ideas. They engage publicity experts, attract large sums of money, establish cordial contacts with the all-important purveyors of news. They circulate their material extensively among influential businessmen, members of Congress, prominent educators and government officials, and all are kept well-informed of their views. And these organizations, sponsored by businessmen, hire crack editorial writers, publicity men, the best stylists, expert draftsmen—all in order to sell the ideas that the organizations sponsor. They can moreover entice scholars who have palatable views.

The reader must not interpret the foregoing as censure of business-sponsored research organizations in general. Many do excellent work. They help to bridge the gap between economists and businessmen, between economists and Congress, and so on. Financial resources are always a help, not a hindrance, if they ferret out facts upon which to base sound generalizations. All would no doubt agree that the Committee for Economic Development for example, has done the country a real service. The liberal businessmen who sponsor this organization are prepared to weigh the pros and cons of each

[1] See pp. 59–62.

[2] *Cf.* Keynes, *General Theory of Employment, Interest, and Money*, p. VIII, 1936.

important public issue more objectively than other such organizations, past and present.

Other research organizations do much useful work, despite the fact that they are in a position to press hard for ideas that they and their sponsors support and that they do take sides on large public issues. We may well wonder whether the sources of their funds would dry up if these organizations should frequently present views unacceptable to their sponsors. In short, although much can be said for research organizations in general, some lay themselves open to grave criticisms and give grounds for serious disapproval.

THE POSITION OF THE UNIVERSITY RESEARCHER IN THE SOCIAL SCIENCES

6.6. THE UNSUPPORTED WRITER OR RESEARCH WORKER WAGES AN UNEVEN FIGHT. In contrast to the sponsored research worker, let us see how the findings of the university researcher in the social sciences are spread. First of all, needless to say, in the course of investigation he had the aid of none of the experts and assistants whom large research organizations engage to assist their investigators. The individual researcher is not free of his university duties. He may, if he is lucky, have received slight financial aid from university funds to enable him to engage a part-time assistant: usually one who is himself or herself studying for the doctorate. More often there are not even funds to pay for the typing of his manuscript—the university researcher's wife fills in at home in this little job. Then what happens? No prepublication fanfare, no publicity experts as for the studies sponsored by large research organizations. If an article, it may be published in a scientific journal, where it reaches a select but small audience—certainly not the audience that makes or greatly influences our laws and institutions. Or if a book, he may find a publisher (more often not) and sell 1,000 to 10,000 copies, the number in large part depending, aside from the true worth of the ideas, on their palatability to the leading editors of reviews—we cannot deny that the space and publicity allotted a book multiply sales. Thus we see that from start to finish the ideas of the free-lance investigator and the ideas of investigators of research organizations have an unequal chance of reaching the general public and those who influence and make our laws and institutions.

6.7. CURRENT GROWTH OF THE RESEARCH ORGANIZATION TENDS TO STIFLE NEW IDEAS. Formerly, research in the social sciences was carried on by independent investigators in the universities which often received gifts for research. These funds for social-science research now go increasingly to the research organizations. The universities (particularly the liberal-arts divisions), which used to be the breeding ground of scientists, are losing ground. Now I submit that, however satisfactory it is to the donor, this is a regrettable trend from the standpoint of the general public. A gift of research funds to a liberal-arts university for social science ensured to society the maximum of independence and detachment in investigation of which human beings are capable. For the donor, it no doubt had its drawbacks. Who knew what

advanced "crazy"ideas might be advanced? This independent investigation might result in such novel proposals as spending for full employment, exchange flexibility against rigid exchanges, maintenance of purchasing power through a reduction of taxes on consumption, and who knows what else. For obvious reasons, then, no doubt it is more satisfactory to the donor to finance research through a research organization. But if we quarantine new ideas through starvation of free, unsupervised research, and choose investigators according to their past position on controversial problems, and accord favorable reportorial space and publicity only on the basis of palatability, then society comes out on the short end and stands a small chance to reach its fullest development.

So we see the wide effects these research organizations are having. Without research funds in universities, more and more economists work for organizations and for the government—the latter equally determined to press its particular viewpoint; nevertheless in extenuation we can say that at least the government presumably represents society as a whole and not a segment of it.

SPONSORED AND UNSPONSORED RESEARCH

6.8. SUPPORT BY RESEARCH ORGANIZATIONS FOR FINANCIAL GAIN. When, to advance his own financial interests, a businessman sponsors or joins an organization whose policy and aims are admittedly the support of economic policies that profit him, he is within his rights, and the organization, however unenlightened, has to its credit intentions that are undisguised. The public understands and accepts them as frankly propagandist one-viewpoint organizations. But it is quite another matter with an organization whose aims are similarly the promotion of economic policies favoring the groups providing the funds, but which by adding research to its title and activity masquerades as an objective, impartial research organization; in this case the sponsors and the organization's work and findings should be regarded as suspect. A "research" organization should, above all, be controlled by representatives of all groups: business, labor, agriculture, professions, government, etc. Anyone has the right to speak for his own interests and support a group organized frankly to further them. It is quite another matter when, under the innocent guise of a research organization, the sponsors push their own group interests, pretending all the while to search for economic solutions for the common good—the work of that organization is noxious, and the sponsors are less than honorable. The reader needs no knowledge of economics to see through the inadequacy and likely one-sidedness of the research of such an organization. If, for example, it undertakes a study to propose policies to maximize output and yield the most equitable system of distribution, the reader can almost with certainty predict the viewpoint and where the plums will fall—right in the sponsor's lap.

6.9. BUSINESSMEN ON PUBLIC POLICY: AN ANALOGY FROM MEDICINE. A pertinent question is: What about the competence of businessmen in the field of economics? It is the writer's opinion based on experience that very

few businessmen are equipped to grasp our whole modern economy and all its complicated interrelationships. Most businessmen are unequal to this both by training and temperament, just as most economists are unequal to the requirements of the business world. Each is endowed with a different type of mind, and each is differently trained—the world needs both. The reader rejoins that the business-sponsored research organizations must realize this, since they engage economists to make these studies. An analogy in medicine can be used here to demonstrate the unsoundness and flaw in that system. Medical science tells us that cancer can be treated in two ways: surgery or (and) X ray. The method of research of some of these businessmen's research organizations would be analogous to a group of patients—clearly affected by modern theories of medicine—who were partial to the X-ray method. They form a research organization, engage esteemed doctors (who on the evidence of their writings and work are reasonably certain to prefer the X-ray treatment) to make a study of policy. Other esteemed doctors, who on the evidence of their writings and work are reasonably certain to prefer surgery, are not consulted and are invariably by-passed, nor are their suggestions of therapy considered. As if this method of investigation were not delusive enough, the board of directors (*i.e.*, including some of the sponsors) then discusses the final report, criticizing and suggesting changes to the professional expert engaged to make the study. (We assume that the expert accepts the criticism only if it has the support of logic.) Such a system would not work in medical research, nor is it desirable in economic research.

We see why, then, the current practice of "research" organizations sponsored by businessmen is not so useful as on first impression we are led to believe. The most serious defect, however, is the danger that may be inherent in nondifferentiation between the interests of business and those of society. These interests are not always the same. Policies prescribed for the nation must be based on the interest of the population as a whole, not of one segment of it.

The analogy of our medical research organization and a research organization supported by business, which hires an economist to write, say, a tax report, is obvious. The economist's views are in general acceptable to the organization. He is likely to suggest large reductions of taxes on business. Such an influence may not be the best for our economy, just as it is not desirable that a patient should try to influence his physician.

6.10. A PLEA FOR THE UNSPONSORED AUTHOR. In short, this chapter is a plea for help for the limited number of economists who may still write with freedom, untrammeled by standards or objectives of research organizations that enter the arena of public policy. It is a plea for equal diffusion of their ideas and fair treatment by those who have access to the public, especially to the policy makers. It is perhaps a diatribe against the increasing influence of "research" organizations, and it is an admission of the reduced prestige of the university in social-science research. Informed of the situation, those who are responsible may make amends. There is a job to be done by the unsponsored as well as the sponsored investigator.

Part III

DEFICITS AND ECONOMIC MALADJUSTMENTS

Chapter VII

Spending vs. Specific Cures

INTRODUCTION

The new approaches to fiscal policy have not had wide acceptance among policy makers. In Part II we discussed the reasons for this.

We are now ready for Part III, Deficits and Economic Maladjustments. In the present chapter we discuss the case for public spending as against more specific attacks on economic malaise; in the next chapter we shall consider the need of deficit spending in peacetime.

Few would disagree that, when the economic situation is deteriorating or threatens to deteriorate, corrective measures are required. Nor would many deny that once a high plateau is reached positive policy is needed to keep the economic machine going on high and to prevent it from sputtering and breaking down. There is still substantial disagreement, however, as to whether the appropriate way out—in either situation—is (1) government spending and particularly deficit spending (with the accompanying rise of debt) or (2) specific attacks, *e.g.*, discouraging monopoly.

THE POPULARITY OF GENERAL MEASURES

7.1. WHY DEFICIT FINANCING MAY BE REQUIRED. Government spending seems an easy way out of an economic muddle. Because the method is painless, many consider spending to be wrong—that unless painful and blood-letting, a measure cannot be curative. The overemphasis of the value of spending as a corrective, to the neglect of the need of real adjustments, is indeed possible. (By real adjustment

is meant, for example, reallocation of labor and capital according to market demands.) This is a mistaken emphasis toward which the Keynesians have inclined, but which they are rapidly correcting.

We are all familiar with economic conditions that necessitate curative measures: deficiency of private spending, low demand, failure of the current production to be taken off the market at remunerative prices, with the resulting decline in prices, increase in business losses, unemployment, and the beginning of a cumulative decline (those who lose income buy less, and therefore the initial losses are multiplied). This is the all too familiar and recurrent picture; hence the need for spending by the government of funds, either created for this special purpose, or diverted from idle hoards.

7.2. DEFICIT SPENDING MAY BE DIRECTED TO CORRECT SPECIFIC MALADJUSTMENTS. Public spending can have a curative and direct effect, and it is a mistake to assume that the effects of the spending are directed *only* to influence *total* demand. *Actually, specific maladjustments may respond to spending.* For example, the government may spend in order to rehabilitate depressed areas, to rejuvenate export industries, or to depress the rate of interest and encourage investment industries. *In this manner, not only does the government increase total spending, but it also treats the special troubled areas.* Spending measures and specific readjustments are not, then, mutually exclusive. Perhaps a useful dichotomy would be (1) spending measures which take into account specific maladjustments and (2) those which do not. The importance of specific measures which correct maladjustments, and yet do not cost the government money, is not, however, denied.

7.3. THE REASONS FOR POPULARITY OF SPENDING MEASURES. Perhaps, in some cases, there has been too ready an inclination to spend, and particularly without consideration to the specific effects of spending. Such excesses can be explained, if not excused: haste is frequently urgent; fundamental adjustments may be politically unpopular if not impossible; often it takes too long to diagnose, to prescribe, and apply specific cures. *A general measure—monetary expansion or (and) spending—may salvage a situation quickly, and with a minimum of harmful political repercussions.*

Let us not forget that the specific measures often require industry's cooperation on what is to be produced and under what conditions and labor's cooperation on place and conditions of work, etc. But if capital and labor raise objections to specific treatment, the result may be

failure for the government, or at best only grudging consent by capital and labor under virtual compulsion.

TRANSFERS OF MEN AND CAPITAL

7.4. THE IMPORTANCE OF MOBILITY. It is clear that demand alone will not yield full employment. Men must be where the machines are, and machines, where the men are. Mobility is an important condition for full employment.

If we are to have maximum mobility, we must have wage flexibility —*i.e.*, where demand for labor rises, wage rates should increase as an incentive to attract workers; and where demand declines, wage rates should fall. Mobility also requires removal of trade-union restrictions on entry; efficient employment exchanges that keep workers informed of vacancies; provisions for moving workers, inclusive of financial help; a national wage policy that adjusts wage rates to changing demand; a discouragement of artificial differentiation of jobs, thus expediting, not delaying, quick substitution; a housing policy that facilitates new construction in growing areas; an unemployment benefit program that, when necessary, encourages workers to move occupationally and regionally.

7.5. RELATION OF DEMAND AND MOBILITY: BRITISH EXPERIENCE. Above all, the degree of mobility achieved depends on the state of demand for goods. British experience, for example, sheds light on the relation of demand and mobility: it indicates that, when demand expands, workers are relatively mobile; but there was mobility even when conditions were depressed. Lord Beveridge has demonstrated that, with deficient general demand, the unemployment record of growing industries in interwar Great Britain was not healthy, the explanation being that workers sought employment in expanding industries. Immobility in depression is not to be explained by friction, but by the absence of a pull, *i.e.*, a deficiency of demand.[1] In short, workers move more easily if demand is satisfactory, and movement, therefore, pays. Prof. Henry Clay has also shown that, in the years before 1921, when demand was satisfactory, export industries attracted a disproportionate number of workers.[2]

Despite this evidence of mobility, there is also much evidence of immobility in Great Britain—in October, 1937, unemployment, as a percentage of those in the sixteen-to-sixty-four age group, varied between 6 and 21 per cent in different regions.[3] This sign of immobility, also, may well be associated with conditions of general demand. If unemployment is substantial in all sections, the areas relatively favorably placed will not attract many from the

[1] Sir William Beveridge, *Full Employment in a Free Society*, Part II, Sec. 1, especially p. 85, 1945.

[2] H. Clay, *The Post-war Unemployment Problem*, pp. 84–87, 1929.

[3] Oxford University Institute of Statistics, *The Economics of Full Employment*, p. 75, 1944.

more depressed areas. *In short, mobility seems to be a function of total demand primarily, and secondarily it is related to institutional factors—insurance, employment exchanges, financial arrangements, wage flexibility.*

7.6. FAILURE TO ACHIEVE HUMAN MOBILITY. On the whole British, experience, in periods of depression, in moving workers from depressed to growing areas was far from successful. Workers do not like to migrate from locations where they and, frequently, their ancestors have lived. It is somewhat easier to move the young workers and new entrants. In any case, movement represents significant money as well as noneconomic costs.

It is for this reason that it becomes increasingly the practice to bring the industry to the worker rather than vice versa. To use Great Britain's experience as a further example: during the recent war it was discovered that British industry in the formerly depressed areas was as efficient as that in other regions. It is apparent to all, moreover, that the movement of British industry (first to the north and west and then, in the interwar period, to the south and east) was costly. For example, social services are available at a lower price in the old areas than in newly established areas. As was accurately stated, the present location of industry is not in the best interests of the British population: it serves the short-time interest of small groups rather than the long-term interests of the nation as a whole.[1] In the past, through the use of subsidies, cheap credit, and tax concessions, the British government made rather *feeble* attempts to reallocate capital resources. (Why, for example, was not derating[2] concentrated on the depressed areas?) In formulating its policy, the British government in 1944 announced its intention to take more ambitious measures to introduce new industries and expand old ones and, especially, to strive for a balanced economy in the depressed areas. In short, the current British policy is to emphasize mobility of nonhuman factors and to encourage labor mobility also.[3]

At the risk of discursiveness, we deal at length here with the British situation on mobility because it provides us with certain valuable precepts. In addition, British experience in the interwar period in the use of spending and specific measures as correctives can shed further light on our investigation of wise policy for the United States. We therefore devote the next section to British experience.

7.7. GREATER EFFECTIVENESS OF GENERAL MEASURES. General measures, we should observe, were quick to yield results, and on the whole met with considerably less political opposition than specific measures. *Manufacture of*

[1] Oxford University Institute of Statistics, *op. cit.*, pp. 79 *ff.*

[2] Reduction of property taxes.

[3] For the issues in this section, see especially H. M. Government, White Paper on *Employment Policy*, pp. 10–15, 19–20, 1944; League of Nations, *Economic Stability in the Post-war World*, Part II, pp. 90, 215–222, 1945; Beveridge, *op. cit.*, pp. 54-59, 166-170, 171-175; Oxford University Institute of Statistics, *op. cit.*, pp. 74–75, 79–83; Clay, *op. cit.*, pp. 111–124; W. H. Hutt, *The Theory of Idle Resources*, Ch. IV, 1939. H. M. Government, *Final Report of the Committee on Industry and Trade*, p. 235, 1929; and *Report of Royal Commission on the Distribution of the Industrial Population* (*Barlow Report*), pp. 5–97, 1940.

money or increases of public debt clearly aroused less vocal protest than an attempt to allocate markets or move people would have elicited. In fact, the general measures taken and those specific ones requiring spending and (or) monetary expansion were the most effective, paradoxically both in bringing about depression and bringing the country out of depression. Consider, for example, two general measures, the repayment of debt in the years 1920–1926 and the return to gold in 1925—the resulting contraction of monetary supplies and overvaluation of sterling accounted in no small part for the difficulties of 1925–1931. With sterling too expensive, given the relation of British and foreign prices, the British tended to lose markets. These general measures accounted for economic deterioration. Exchange depreciation, the imposition of tariff barriers (which tended to have the same effect as an expansion of money), and the cheap money policy (related to depreciation and trade policies) in 1931 and later, on the other hand, were remarkably therapeutic. They contributed to expansion of demand for British products both at home and abroad. After 6 years of British experimentation with specific measures, the effects of general measures, when finally applied, seemed almost miraculous.[1]

GENERAL VS. SPECIFIC MEASURES

7.8. THE FOLLY OF EXCLUSIVE RELIANCE ON GENERAL MEASURES. Having learned much from British experience with specific measures, we proceed to further discussion of general vs. specific measures. Although as stated earlier in this volume full employment cannot result from increased demand *alone*, we can nevertheless, be just as certain that we can have no full employment, possibly not even high employment, in the absence of adequate total demand. Goods without buyers mean losses for business and reduced demand for labor. Hence the emphasis, both here and abroad, is placed on consumption and investment demand. If there is not sufficient private demand, it is up to the government to fill the gap. This view is widely held in Great Britain, and it has considerable support in this country.

Yet this is not tantamount to exclusive reliance on what Keynes and Lord Beveridge have called the "socialization of demand." No responsible person could claim that, with satisfactory total demand and employment, government spending is the way, for example, to deal with 3 million excess workers in 17 Western States. Government spending, wisely directed, might help; but the indiscriminate disbursement of $15 billion (on the assumption that $5,000 are required to provide a year's employment per man) might put relatively few men to work. If employment is at a high level elsewhere, the net effect of unselective

[1] *Cf.* H. M. Government, *Final Report of the Committee on Industry and Trade*, 1929; Clay, *op. cit.;* J. M. Keynes, *Treatise on Money*, Part VII, 1930; Seymour E. Harris, *Exchange Depreciation*, Part IV, 1936; Report of the Liberal Industrial Inquiry, *Britain's Industrial Future*, 1928; A. C. C. Hill, Jr., and I. Lubin, *The British Attack on Unemployment*, 1934.

disbursement of funds will be inflationary over most parts of the country, only a small part of the injected purchasing power finding its way into the aforementioned 17 Western States—a proportion determined (say) by the usual geographic distribution of government disbursements inclusive of secondary disbursements. If there is a concentration of unemployment in one area, the correct approach is specific treatment of the problems of that area.

Effectiveness of general measures diminishes as the amount of unemployment is reduced. In the early stages of a depression, the period of widespread unemployment, a given government outlay yields a large amount of employment and relatively little inflation. In the later stages, as unemployment decreases, the primary effects of spending are exhausted in rising prices and the secondary effects even more so. For this reason, it is important that with the advance to high levels of employment we concentrate more and more on specific corrective measures for specific maladjustments.

7. 9. RELATION OF DEFICITS AND INCOMES IN WAR—RELATIONS SHOULD NOT BE GENERALIZED. Doubtless there are many lessons about public spending to be learned and analogies to be drawn from our war experience; yet we should be cautious when we make these analogies. One might indeed point to the year 1944, when the government deficit exceeded $50 billion and yet unemployment was reduced by only 200,000 and the gross national product increased but $11 billion. Substantially better results had been achieved earlier in the war. Deficits in the fiscal years 1941 and 1942 were but 5 and 19½ billion dollars, respectively. Yet unemployment in 1941 declined by 2.5 millions, and GNP rose 23 and 31 billion dollars, respectively, in the calendar years 1941 and 1942. The test of effectiveness of deficit spending in war is not given, however, by the rise in deficits in relation to concomitant improvements in GNP and employment. Victory, not the rise in employment or GNP, is the goal in war. Employment objectives could have been achieved with the expenditure of much less than $50 billion of borrowed money per year. The point is that the government had to spend $100 billion per year *for war*, and while doing so, had to keep private expenditures down.

War objectives in short required $100 billion of federal expenditures; employment and income objectives could have been achieved with perhaps one-quarter of this amount. A given amount of deficit spending would have yielded much larger rises in GNP and employment had the war not required restrictions of nonessential expenditures.[1]

[1] Figures from Report to the Senate Committee on Banking and Currency, *Basic Facts on Employment and Production* (*Senate Committee Report* 4), pp. 2, 12, 26, 1945. GNP is the gross national product.

Is it not clear that exclusive reliance on deficit financing is mistaken policy, and yet that deficit financing will *help* correct structural maladjustment? Is it not also clear that deficit financing will be more effective in periods of large amounts of unemployment than in later stages when unemployment has fallen off? But there are corrective policies other than spending and objectives other than full employment. To these we turn briefly in the next section.

ADDITIONAL OBJECTIVES

7.10. ROADS TO INCREASED SPENDING. The objectives public authorities should seek are improved flexibility (or in some cases, stabilization) of prices; increased stabilization of demand; increased mobility of labor and capital; technological improvements and declining costs; advances in education, training, and living conditions as necessary conditions for low-cost production; more investment, and at reduced rates of interest; expansion of foreign trade through a relaxation of tariff barriers and relative exchange stability; tax reform with a view to stimulating expenditures for investment and consumption; increased consumption and investment under state auspices where serious deficiencies would otherwise prevail or where without state aid, required spending (*e.g.*, for education, and recreation) would not take place.

This brief catalogue of policies reflects the importance of both general and special measures and their interdependence. Deficit spending, for example, which sustains demand, also contributes toward the reduction in money rates and the rise of investment. Government funds, for example, which provision foreign capital markets also would give sustenance to export industries.

7.11. OBJECTIVES: MAXIMUM OUTPUT AND APPROPRIATE RELATION BETWEEN WORK AND LEISURE. Finally, we should never lose sight of the fact that neither general nor special measures are invoked merely to increase the level of employment. Discussions center too much around full employment, to the neglect of maximum product or national income. We seek not only jobs for all those who would work, but also such allocation of manpower and resources as to yield the maximum national product. Our wartime experience has taught us the value of upgrading—domestic workers went into factories, farmers became mechanics, skilled workers became supervisors, and so on. Of course, there are limits to upgrading, but nevertheless much can be gained by making the highest possible use of all skills. In addition, we should seek a balance between work and leisure.

Through its economic policies, the government may induce a better use of manpower, capital, and materials; it can also determine to a considerable

degree the distribution of gains between leisure and work or income. Legislation on hours of work, provisions for schooling, social security for older workers—all these will influence numbers on the labor market, the length of the working week, and the volume of income. Through its influence on demand and through its specific attacks, the government will then help determine not only (1) the amount of employment but also (2) the numbers on the labor market (and, therefore the difference between the latter and the former, *i.e.*, the amount of unemployment). Public policy will then influence the amount of product produced by those employed.

7.12. SUMMARY. *To sum up the discussion of this chapter: when a government must resort to corrective policies, it is unwise to use general measures to the exclusion of specific ones.* In fact, the *indiscriminate* pumping of government cash at any time is uneconomical, and it is indefensible in periods of high employment—the gains to be had in this period by the use of general measures (which, it is recalled, are not concerned with the direct treatment of specific ills) are not worth the cost. That governments frequently favor general spending programs, rather than the use of specific programs sometimes entailing painful readjustments, is to be explained by the fact that specific measures often stir up opposition of vested interests and political hostility—effective deterrents for the policy maker. Yet the opponent of government spending or monetary expansion may well underestimate elements of specificity in what seem to be general measures. Wise spending policies, finally, will be directed not only toward the maintenance of employment, but also toward the increase of product per man-hour.

Chapter VIII

Deficits in Peacetime

INTRODUCTION

In the preceding chapter, the relative merits of general measures (*e.g.*, spending) and specific measures (*e.g.*, attacks on costs and distribution of labor and capital) were discussed. The reasons for the preference of general measures, the practical difficulties of specific measures, and the limitations of exclusive reliance on general measures should now be understood.

Our task in this chapter is further to analyze peacetime deficit finance. (1) We give the critical view of classical economists toward government spending and the revision of these views in the last fifteen years (Secs. 8.1, 8.2). (2) We examine the nature of public spending and, in particular, the relative merits of investment and consumption expenditures (Secs. 8.3, 8.4). (3) It is necessary to appraise the *projections* of private spending, both those which point to exclusive reliance on private enterprise and those which suggest increased scope for government (Secs. 8.5 to 8.7). (4) The costs of alternative fiscal routes to full employment are discussed (Secs. 8.8, 8.9).

OLD AND NEW VIEWS

8.1. THE CLASSICAL VIEW—GOVERNMENT SPENDING IS UNPRODUCTIVE AND AT THE EXPENSE OF PRIVATE SPENDING. In Anglo-Saxon countries since the days of Adam Smith and up until quite recently, the generally accepted theory of public finance stipulated that taxes should be at a minimum and government should restrict its activities to protection of life and property and defense against attack.[1] It was generally held that money taken by the government was subtracted from private purchasing power and that its use by government was always less productive than if allowed to fructify in the hands of individuals. It was further held that, insofar as taxes were required,

[1] *Cf.*, however, H. Finer, *Road to Reaction*, p. 74, 1945; and especially Ch. IV of this volume.

they should consist predominately of consumption taxes and therefore should be levied mainly on the masses; the idea being that, if taxes were assessed on high-income groups, they would tend to impinge on savings which, on the word of highest authority, were the source of employment and wealth. Furthermore, economists prior to 1929 generally held the view that, if money was borrowed by the government from the banks or if money was printed by the government, the inevitable result was inflation: the additional money competed with existing supplies, with adverse effects on prices.[1]

8.2. MODERN VIEW: MORE FAVORABLE TO PUBLIC SPENDING. These nineteenth-century views no longer have wide support as in former days, and especially since 1929 significant changes in viewpoint have occurred. Economists of today might well generally agree on the following:

1. In peacetime the purpose of raising of taxes should not be restricted only to the protection of life and property and defense against attack.

2. The volume of expenditures, the amount of taxes, the nature of the tax system—all these should be influenced by the needs of the economy as a whole, and, in the appraisal of needs, the government should take into account the repercussions upon the economy of tax collection, public expenditures, and debt growth. When taxes account for 20 to 35 per cent of national income, we can no longer afford to disregard the effects on the economy of taxes and public expenditures.

3. In economically advanced countries, taxes which impinge on consumption will probably be more costly to the economy as a whole (in the *real* sense) than those which impinge on savings.

4. Money spent by the government *may* well be more productive than money spent by individuals. For example, compare the usefulness of expenditures of billions of dollars on cosmetics, advertising, tobacco, gambling, etc., with the usefulness of state expenditures on health, education, and river development.

5. Government spending is not necessarily at the expense of private spending. When there are unemployed resources, government spending may well be additional spending. The government, through

[1] *Cf.* the excellent statement by Dr. Schumacher in Oxford University Institute of Statistics, *The Economics of Full Employment*, pp. 86–87, 1944; and especially, Secs. 4.1 to 4.5 of this book.

borrowing, may either activate idle money or be responsible for the creation of additional money. The money newly created or activated increases demand and, therefore, output. (In fact, it is *quite widely* held that the ensuing expansion of income resulting from successive waves of expenditures will provide the savings required to finance the additional expenditures. And the community as a whole will have more goods than otherwise would have been available.)

TYPES OF PUBLIC EXPENDITURES

8.3. EARLY SUPPORT OF PUBLIC INVESTMENT. When government spending and deficit financing were first proposed to raise output and reduce unemployment, the emphasis was put on public investment. These early proponents of public investments were especially impressed by the favorable effects of investment on consumption (the multiplier principle) and were inclined to neglect consideration of the favorable effects of public investment on private investment. Their position was based on the theory that at low levels of employment and with much excess capacity, inattention to the effects of public investment on private investment did little violence to the facts.[1] An expansion of investment, following a rise in consumption or public investment, was not, under these assumptions, likely to be large.

More recently, there has been a disposition to discuss the total effects of public investment on income, or even of deficits on income, the latter frequently being referred to as the "leverage effects." Numerous estimates have been made of the multiplier and of the leverage factor. Keynesians, on the whole, have made moderate estimates of the value of the multiplier. Not so some critics who are disposed to find, in a high leverage factor, the need for only limited deficit expenditures.[2]

8.4. THE INCREASED SUPPORT FOR PUBLIC EXPENDITURES FOR CONSUMPTION. Our experience with government spending in the last fifteen years has resulted in a shift of emphasis from public investment to consumption. This is not to deny that the expenditure of many billions of dollars on schools, hospitals, housing, river development,

[1] Especially J. M. Keynes, *The Means to Prosperity*, Ch. II, 1933; R. F. Kahn, "The Relation of Home Investment to Unemployment," *E.J.*, 1931, pp. 191–195.

[2] A. G. Hart, " 'Model Building' and Fiscal Policy," *A.E.R.*, September, 1945, pp. 552–557.

etc., can be an effective form of public investment. But there are many good reasons for the change in emphasis and viewpoint.

(1) It seems difficult for a government to be ready, ahead of need, with a wise and adequate investment program: the country was not so prepared in the thirties; and in 1945, even after years of planning, all government projects (many of which had not reached the blueprint stage) accounted for expenditures of but between 5 and 7 billion dollars.[1] (2) The government in the past had not always spent its investment dollars wisely. (3) Expenditures on public investment are not always easily adapted to the over-all requirements of the economy. When, for example, national income is rising, the need for social capital grows, and public demand may then be competing with private demand and helping to bring on inflation. Furthermore, a large project (*e.g.*, a dam), once started, cannot be stopped regardless of the emergence of inflationary dangers. (4) In view of potential deficiencies of spending, public investment may be inadequate to fill the gap. A saturation point is soon reached. For instance, plans for river development, irrigation, reclamation projects, and forest development entail expenditures of only about $6 billion in all—not a large enough expenditure, when unemployment is high, really to get the ball of reemployment rolling.[2]

(5) Consumption may deserve higher priorities than investment. Who is to say, for example, that road construction and river development should have priority over expenditures on health, education, family allowances, old-age insurance, recreation, etc.? At some point these expenditures for consumption become more important than continued expenditures on investment. (6) We have become increas-

[1] Federal programs of postwar construction as of Jan. 1, 1943, called for expenditures of between 7 and 8 billion dollars (House Doc. 128, *National Resources Development Report for* 1943, Part 2, p. 35, 1943); also *cf. Hearings on Postwar Economic Policy and Planning*, Part 5, p. 1073, June, 1944. In January, 1945, President Roosevelt announced that plans for public investment had attained a total of $5.5 billion—not by any means all in the blueprint stage (*Budget*, 1946, pp. XIV–XV, 1945). Later, Justice Byrnes, then head of the Office of War Mobilization and Reconversion, estimated that $4.5 billion of federal projects authorized by Congress might be placed under way rapidly; with $2.5 billion of other projects, this figure might be increased to $7 billion. *Cf.* its second report, *War Production and V-E Day*, p. 28, 1945.

[2] House Doc. 128, *op. cit.;* Hearings on *Postwar Economic Policy and Planning*, Part 5, p. 1075. Programs for flood control required expenditures of $2 billion; irrigation and reclamation, $3 billion; and reservoirs and harbors, $1 billion. Finally, the government at the end of 1945 announced plans for proposed public works for state and local governments of more than $8 billion; but about three-quarters were only in the design stage. *Cf.* Federal Works Agency, *Report on Plan Preparation of State and Local Public Works*, p. 4, Dec. 31, 1945.

ingly aware not only that saturation of investment is attained relatively early, but also that the amount of investment demand depends on consumption (*e.g.*, the more spent on recreation, the larger the expenditures on roads, building, etc.).[1] (7) Productive investments ultimately provide increased flows of consumption goods, and if a marketing problem persists (*i.e.*, a failure to sell current output at remunerative prices) the solution may well be increased output of consumption goods directly, without the intermediary of investment, the goods to be disposed of free.[2]

SOME ASPECTS OF THE CASE FOR PRIVATE ENTERPRISE

In the past two sections of this chapter, we concentrated on changing attitudes toward government spending. Now we are prepared to discuss some aspects of the case for and against deficit financing and debt accumulation. We should emphasize at the outset that structural changes, (*e.g.*, increased flexibility of prices and wages, or a rise of mobility) should help greatly to raise demand and reduce unemployment.

8.5. PROJECTIONS OF PRIVATE SPENDING WHICH EXCLUDE DEFICIT FINANCING. Much attention has been given in the last few years to the possibility of relying largely, if not exclusively, on private demand. These estimates or forecasts are of importance, because they have frequently been accepted as evidence that private enterprise and spending could provide adequate demand unaided. A much quoted study by the Department of Commerce made projections into the postwar of the relationship of gross national product[3] to expenditures for various groups of consumers' goods and investment goods. If, for example, the country spent $21 billion on food in 1940, when GNP was $97 billion, then its expenditure on food would be $34 billion in 1946, when GNP at full employment was estimated at $165 billion (1942 prices). With some reservations, the percentage of food expenditures to GNP would be roughly equal in both years, and similarly with other classes of expenditures.[4]

More recently the Committee for Economic Development attempted to estimate the output of manufactured goods for the first year after reconver-

[1] See, especially, Sir William Beveridge, *Full Employment in a Free Society*, pp. 180–187, 1945; Oxford University Institute of Statistics, *op. cit.* pp. 49–50; A. H. Hansen in the "Symposium on Monetary and Fiscal Policy," *R.E.S.*, May, 1946.

[2] *Cf.* H. S. Ellis in Twentieth Century Fund, *Financing American Prosperity*, pp. 134–135, 1945. Prof. Ellis prefers consumption expenditures by government, because they support free choice and allow private enterprise a large area.

[3] Gross national product—the gross flow of goods and services.

[4] U. S. Department of Commerce, *Markets after the War*, pp. 21–28, 1943. Some adjustments were made to allow for long-run trends and peculiarities of the postwar situation.

sion (1947), and, on the basis of this figure and other information, it arrived at the postwar employment figure for manufacturing. Assuming a historical relation of manufacturing employment to total, it calculated total employment. The estimate of manufacturing output was obtained, on the basis of forecasts of the amount each expected to produce, from 158 trade associations and 1,406 manufacturers covering 20 chief manufacturing groups and 290 industries.[1]

Although both these studies are helpful, they are of very limited significance. First, concerning the Department of Commerce study: Forecasts of future consumption demand in peace can be little more than informed guesses. Our peacetime experience is restricted to a GNP of $99 billion (1929) or less. In the thirties, the GNP range was between 55 and 89 billion dollars. Since our peacetime experience has been limited to a GNP of these amounts, a relation of consumption at a GNP of between 160 and 200 billion dollars on the basis of prewar ratios has restricted meaning. Consumption at a higher level of income will vary with the distribution of that income at a given price level; with price movements, both general and relative; with the rate of taxation; with the supply of savings available from the war period; with the kind of social-security program in operation; with the period during which this high income is sustained; with the expectations concerning future income; and with many other factors. In short, that consumption was 72 per cent of GNP in 1940 is no guarantee that it will continue to be 72 per cent of GNP.[2]

Next, concerning the C.E.D. study: it is of limited significance. It is not, and cannot claim to be, a serious forecast of demand or of what will be produced. A large group of businessmen in 1945 presented their expectations as to how much each would produce in 1947. How much they will produce will depend, however, on national income in 1947, both actual and anticipated, on taxation, on monetary policy, and on a host of other considerations. Production in 1947 clearly will not be the sum of outputs anticipated in 1945 by thousands of producers, each operating independently of others. About all that can be claimed for these estimates for 1947 is the sign of optimism that prevailed in 1945. In short, expectations of private demand are no guarantee of adequacy of future demand.

8.6. PROJECTIONS THAT SUGGEST A DEFICIENCY OF PRIVATE SPENDING. Others have been less optimistic concerning private spending in the future. To attain a $200-billion GNP—the generally accepted full-employment income at 1943 prices[3]—huge expenditures for capital are required. Even the Department of Commerce's GNP of $160 billion is attained only on the

[1] C.E.D., *American Industry Looks Ahead*, August, 1945, especially pp. 21–51.

[2] Many have erroneously assumed that the Department of Commerce, in estimating GNP at full employment and consumption and investment at this GNP, was in fact predicting a full-employment GNP and the allocation of expenditures given by earlier periods.

[3] For further estimates, see E. Hagen, "Postwar Output in the United States at Full Employment," *R.E.S.*, May, 1945; and Seymour E. Harris, *Inflation and the American Economy*, p. 418, 1945.

assumption that producers' goods and private construction would rise from $11.9 billion in 1940 to $28.6 billion in 1946.[1] If the rise of consumers' expenditures as a percentage of rise of GNP had not been put at 72 per cent in the study by the Department of Commerce—compare the actual ratio of these two variables of 41 per cent in 1939–1941 and 34 per cent in 1939–1944—the required rise in investment would have been even greater.

We might at this point consider three less optimistic patterns of postwar expenditures. Dr. Mosak, for example, estimated a full-employment income for 1950 at $200 billion and income payments at $160 billions:

"The projection of consumer expenditures at each given level of the gross national product is derived in three major steps. First, the level and composition of the national income before taxes is projected corresponding to each volume of gross national product. Next, we estimate the level of disposable income in the hands of individuals corresponding to each level of the national income, under specified assumptions as to corporate and personal taxes. Finally, we project the aggregate volume of consumer expenditures corresponding to each level of disposable income.

"It is assumed that the volume of consumer expenditures in the postwar will bear a stable relationship to the aggregate of disposable income."

On the basis of this analysis, Dr. Mosak finds that under 1944 tax rates consumer expenditures would have to be $115 billion, under 1941 tax rates, $125 billion. At a full-employment income he estimates the required government expenditures *and private capital formation* at between 71 and 85 billion dollars.[2] A steady volume of $25 billion for private capital formation year after year—in the light of the increasing effectiveness of capital and the adequate supplies of capital available, a prospect on the extremely optimistic side—would then require government expenditures of about $55 billion.

In a somewhat similar vein, the National Planning Association (N.P.A.) analyzes national budgets for full employment.[3] The N.P.A.'s conclusions are that on the basis of past relationships a full-employment income of $170 billion (at 1941 prices) could not be maintained by private enterprise: spending would be inadequate. N.P.A. suggests five alternatives to attain full employment: (1) increased public expenditures, (2) reduced taxes, (3) increased public expenditures and increased taxes, (4) increased private investment and a slower ratio of reserve accumulation to business income, (5) increased expenditures of individuals stimulated by increasing incomes toward the lower end of the scale, and increased price competition.

In addition, N.P.A. offers three models, as indicated in Table 2. (1) The government contributes an amount of money in excess of what might be expected on the basis of historical relations; (2) business' contribution is

[1] This projection was well confirmed by events in 1946, but it is not likely to be a reliable projection for a *typical* postwar year.

[2] J. L. Mosak, "Forecasting Postwar Demand," in *Economic Reconstruction*, (edited by Seymour E. Harris), pp. 78–92, 1945; especially pp. 84, 86, 91.

[3] N.P.A., *National Budgets for Full Employment*, April, 1945, especially pp. 51–53.

similarly inflated; and (3) consumers purchase more, with favorable effects on business expenditures.

TABLE 2.—POSTWAR NATIONAL BUDGETS
(In billions of dollars)

	Government model	Business model	Standard of living model
Individual demand for goods and services	114	114	118
Business expenditures	22	28	24
Government expenditures	34	28	28
Government deficit (−) or surplus (+)	−6	+2	+2

SOURCE: N.P.A., *National Budgets for Full Employment*,.

Using similar methods, Henry Wallace studied postwar budgets. At 1944 prices, his full-employment income in 1950 would be $200 billion (Table 3). (This roughly corresponds to $170 billion in 1941 prices.) On the whole, however, Mr. Wallace envisages the possibility of larger public expenditures than the N.P.A. Both Wallace and the N.P.A., it should be observed, call for less government expenditures than Mosak—the reason is that the extrapolated expenditures of the former two are inflated beyond the amounts given by past relationships.

TABLE 3.—NATIONAL BUDGETS FOR 60 MILLION JOBS
1950 Models (1944 Prices)

Model	Billions of dollars spent by			
	Consumers	Business for capital formation	Government	Total
1929	142	36	22	200
Government	120	15	65	200
Business	130	35	35	200
Consumer	140	25	35	200
Consumer-business	135	30	35	200

SOURCE: H. A. Wallace, *Sixty Million Jobs*.

FINANCE AND FULL EMPLOYMENT

8.7. WHY THE GOVERNMENT HAS RECOURSE TO DEFICIT SPENDING. If, despite practical structural changes, peacetime consumption should not attain the desired level, if peacetime investment should not contribute the appropriate amount of spending for a full-employment economy (as is indicated by the projections discussed in Sec. 8.6), and

if peacetime deficiencies in one sector of the economy should not be alleviated by gains in the other, then the government should not stand by while a cumulative decline of spending sets in. Corrective action by the government will then be imperative. These are, of course, not the only reasons for government spending. One additional reason is that some tasks, which should be done, can be done only by government, *e.g.*, river development. When the gains are widely diffused, a project may not pay business; yet if the government bears the costs, the project becomes profitable and practical.[1]

To make up for the deficiency of private spending, the government increases its spending *primarily* by means of funds obtained from the banks and also in part from savings borrowed from the public. In determining the spending required, the Treasury should take into account the effects of additional public spending on private spending. What would the initial effect be on private spending? What would the secondary effect be on private spending associated with the initial increase of spending? In particular, as beneficiaries of government disbursements receive more cash, how much more is spent on consumption goods, on investment goods, and how much is taken away through increased tax receipts?

Much will depend upon the nature of the tax system as well as upon the expenditure pattern. If, for example, taxes are primarily on consumption and a large proportion of expenditures is applied to servicing the public debt, obviously the results of deficit financing may well not be highly favorable.[2] Both heavy taxation on consumption and transfers to *rentiers* who save large proportions of their incomes will have adverse effects on consumption. It is as important to have regressive patterns of expenditures as a progressive system of taxation. A given tax yield and expenditures will yield more favorable results, *ceteris paribus*, the lower the propensity to consume of the taxpayer and the higher the propensity to consume of the beneficiaries of government disbursements. Then the discouragement of spending through additional taxes required will discourage spending a minimum. Taxes will come to a substantial degree out of savings, and the money received by beneficiaries will largely be spent.

[1] *Cf.* International Labor Office, *The Maintenance of High Levels of Employment during the Period of Industrial Rehabilitation and Reconversion*, pp. 47–48, 1945; and D. B. Copland, *The Road to High Employment*, pp. 116–118, 1945.

[2] Dr. Wallich finds that the adverse effects on spending of transfers to *rentiers* are not so great as is commonly assumed. Federal Reserve Board, *Public Finance and Full Employment*, pp. 86–89, 1945.

8.8. ALTERNATIVE ROUTES TO FULL EMPLOYMENT: PUBLIC OUTLAY, REMISSION OF TAXES AND ORTHODOX FINANCE. The preceding discussion suggests that the aid of government may be required, in particular deficit financing. Deficits may be incurred (1) through an excess of spending over tax receipts or (2) through a decline of tax receipts, expenditures being maintained. These are not, however, the only alternatives. (3) A third alternative is an equal rise of both public expenditures and taxation. There are, then, three fiscal routes to full employment. It is not assumed, of course, that these routes will inevitably lead to full employment—in fact a *large* rise in taxation (the third alternative) may especially fail to achieve the objective.

There is general agreement that Route I is the most effective. For a given net effect on total spending, deficits will be smaller under I (public outlay) than under III (remission of taxes), because under I a rise of expenditures—as against a reduction of taxes—will increase spending by a large amount relative to the increased deficits involved in both cases (see Table 4). Tax reduction, for example, will be wasted insofar as savings, not consumer spending, will be encouraged. Another relevant consideration in choosing between the fiscal routes is that adequate tax reduction may not be feasible as a matter of public policy. In depression, for example, at the very time when public spending is called for, tax relief for high-income groups is not likely to be palatable to the voters. Instead, in this situation, an expansion of government expenditures—relief, public works, etc.—will be required. Tax reduction at this point might be considered as a subsidy to the relatively well-to-do, *i.e.*, those with tax capacity, whereas what was needed was aid to the distressed. In short, even if tax reduction achieves full employment, it fails in that it pays scant attention to distributive justice.

For a given result, let us emphasize, tax reduction will account in the long run for a larger deficit than expansion of deficit expenditures because of the more favorable effects on income and tax receipts of Route I than of Route III. In short, tax reduction will in the long run be more costly to the taxpayer than expansion of defict expenditure.

Let us discuss Route II—an expansion of both expenditures and taxation: the balanced-budget route. Obviously, this will prove to be the most costly attack on unemployment. For example, in order to correct an annual deficiency of $20 billion in private spending and to keep taxation apace, a fantastic budget would be required. (This has been demonstrated by Dr. Musgrave,[1] among others.) The cost of the attack via Route II arises from the adverse effect of additional taxation upon private spending. Few would agree that an increased but balanced budget would be a practical approach once deficits of private spending become substantial.

In their thorough study of the alternative fiscal routes to full employment, Sir William Beveridge and Prof. Kaldor showed conclusively that the most effective fiscal route (Route I) was through deficit finance associated with increased public spending (see Table 4).

[1] R. A. Musgrave, "Alternative Budget Policies for Full Employment," *A.E.R.*, pp. 387–400, 1945.

TABLE 4.—ACTUAL AND FULL EMPLOYMENT OUTLAY IN 1938
(In millions of pounds)

	Actual outlay at 1938 level of employment	Outlay at full employment attained by		
		Route I (public outlay)	Route II (orthodox finance)	Route III (remission of taxation)
(1) Public outlay on goods and services out of revenue.....	725	860	1710	460
(2) Public outlay on goods and services from loans (deficits)...	75	230	0	340
Total of (1) and (2).....	800	1090	1710	800
Increase of actual public outlay over 1938 outlay.....	...	290	910	0

SOURCE: Adapted from Sir William Beveridge, *Full Employment in a Free Society*, pp. 139–141, 1945.

It will be noted that Route I yields a smaller deficit than Route III and that Route II requires a rise of taxation in excess of 100 per cent. In general, then, Route I is the best possible attack. It saves the taxpayer money as compared with Route II and, under II moreover, the government's participation in economic life will be much greater than under I or III. If the additional taxes levied under II were exclusively direct taxes, the added burden would be reduced by about one-third; and if, under III tax remission were concentrated on indirect taxes, the difference in deficits between I and III would be reduced by one-half.[1]

8.9. CONCLUSION. The main points made in this chapter are that unemployed resources are wasteful, that the wastage can be reduced and even eliminated through fiscal policy, and that new resources created should provide the money required to finance the growing debt. We are obviously better off with more production. The financial problem is largely that of the distribution of the increased national output.

It is conceivable that full employment may be attained without recourse to government financing. This result will not, however, be reached without significant institutional changes: breakdown of monopolies, reduction of trade barriers, a new and improved tax pattern which puts less burden on spending, improved relations between government and business and business and labor. *Perhaps*

[1] For materials in this section in addition to quoted works, see especially Oxford Institute of Statistics, *op. cit.*, especially Chs. II and IV; A. H. Hansen, "Three Methods of Expansion through Fiscal Policy," *A.E.R.*, June, 1945, pp. 382–387; H. C. Wallich, "Income Generating Effects of a Balanced Budget," *Q.J.E.*, November, 1944, pp. 78–91.

radical institutional changes will then bring about the necessary increase in total spending. This, however, is unlikely, for clearly, on the basis of past relationships, the level of private spending required to provide full employment seems unattainable. In view of the slow progress, and in many respects retrogression, in required reforms that might lead to the desired increase in private spending, the economist may well be justified in looking to new frontiers—to an increased contribution by the government. When one considers the social need for expenditures on health, education, and recreation which can be obtained only through the government, and when one further considers the present pattern of private spending, the case for increased spending seems even stronger.[1]

[1] *Cf.* Hansen and Perloff, *State and Local Finance in the American Economy*, Part III, 1944.

Part IV

INFLATIONARY ASPECTS

INTRODUCTION

As stated in Part III, economists are increasingly aware of the wastage involved in unemployment. Many of them, therefore, propose to put unemployed resources (labor, capital, management) to work, expecting that with higher outputs of goods and services the necessary financial arrangements can be made more easily than with a lower volume of output. But if institutional changes and market improvements do not induce the necessary expansion of private spending, these economists also propose additional public spending.

Government deficits, however, are not by any means the one cure for deficient private spending and unemployment. General measures—attacks on economic ills—may be used to correct specific maladjustments and should be used because many structural weaknesses do not yield to spending, and the spending remedy is particularly costly at high levels of employment. Those, in brief, were the main points of Part III.

In Part IV we are to consider the monetary aspects of public debt. What is the relation between public debt and monetary supplies? Does public spending and accumulation of debt inevitably bring inflation? What does historical experience suggest concerning debt and price trends? What is the relation of debt, and the interest rate on public debt, to the accompanying monetary expansion?

Chapter IX

The National Debt, Money, and the Banking System

THE CONTRIBUTION OF A RISING PUBLIC DEBT TO REQUIRED MONETARY SUPPLIES

9.1. HISTORICAL EXPERIENCE. Our modern economic system requires an expanding and large volume of money to satisfy the increased demand for holding cash and for carrying on transactions. In a recent study of our monetary history since 1800, Dr. Wernette concluded that the United States requires increasingly large amounts of cash and that the monetary authorities have not always provided the required supplies. He estimated that from 1800 to 1940 the quantity of money rose 1,762 times; yet prices in 1940 were lower than in 1800.[1] These cash requirements are satisfied predominately by the manufacture and use of bank deposits.

Since most of the new (net) deposits created since 1914 *are accounted for by sales of public securities to banks against which the banks give deposit credits, it can be argued that the growing public debt has served a very useful function: without debt expansion, monetary supplies might well have been inadequate.*

Consider, as evidence, figures in Table 5.

If, for example, government securities had not been available in the years 1914–1945, the supply of deposits might have been $80 billion less than they actually were: two-thirds of the rise in deposits in that period would not have taken place. Under these circumstances, the downward pressure on prices would have been serious indeed.

The following figures suggest the extent to which sales of government securities to banks account for the expansion of monetary supplies. According to one official study, bank holdings of United States government securities in June, 1919, provided only 17 per cent of the total money supply of $35.6

[1] J. P. Wernette, *Financing Full Employment*, pp. 38 ff., 1945.

billion. By June 30, 1944, they accounted for 69 per cent of a money supply of $151 billion. With a rise in money of $116 billion, bank holdings of United States government securities increased by $99 billion. Over this same period, the contribution of private credit and other bank assets declined $3.4 billion to $21.6 billion.[1]

TABLE 5.—RISE OF DEPOSITS, GOVERNMENT SECURITIES, GROSS NATIONAL PRODUCT, 1914–1945
(In billions of dollars)

Period	Deposits*	Federal government securities†		GNP§
		Outstanding	Held by banks	
June 30, 1914–June 30, 1921.....	17.1	22.8	3.5	31.8
June 30, 1921–June 29, 1929.....	18.3	−7.1	1.2	29.1
June 29, 1929–June 30, 1945.....	83.7	140.1	78.6‡	98.2
June 30, 1914–June 30, 1945.....	119.3	255.8	83.3‡	159.1
Dec. 31, 1941–Dec. 31, 1945.....	66.9	218.2	68.7‡	77.1

SOURCES: Deposits: Federal Reserve Board, *Banking and Monetary Statistics*, 1943; and *F.R.B.*, April, 1946. Government securities: Federal Reserve Board, *op. cit.*; Senate Committee Report, *Basic Facts on Employment and Production*, 1945; and *Treas. Bull.*, May, 1946. Gross national product: Senate Committee Report, *op. cit.*; *S.C.B.*, February, 1946.

* Deposits before 1941 are "total minus interbank," afterward, "total deposits adjusted," of "all banks."

† Interest-bearing debt.

‡ Held by commercial banks, trust companies, and stock savings banks; before 1941, held by "all banks," excluding nonincorporated banks.

§ Gross national product is for calendar years, in current dollars; 1945 GNP is an average of four quarterly figures.

9.2. THE RELATIONS ARE FURTHER EXAMINED. Needless to say, the figures in the preceding paragraph and Table 5 oversimplify the problem. An initial decline of prices curtails output and, therefore, the cumulative decline of bank assets and deposits would be much larger than is indicated by the rise of securities held by banks. That is to say, had government securities not been available, prices would have fallen and incomes also. The contribution to monetary supplies of sales of government issues to banks is given, it should be noted, not by the expansion in bank portfolios, but by the difference between total assets held by banks and what they would have been if securities had not been sold to the banks.

PERIOD ANALYSIS OF THE RELATION OF DEBT AND DEPOSITS

9.3. THE YEARS 1914–1945. The foregoing analysis relates to the period as a whole. Before surveying the periods chronologically, I should insert a

[1] Senate Banking and Currency Committee, *Basic Facts on Employment and Production*, p. 24, 1945.

reservation for the years 1922–1929. Since an inflation prevailed over these years, it might be held that monetary supplies were excessive. (Actually, in this period prices tended downward, though in view of the large reductions in costs, the slight downward movement of prices concealed a profit inflation: prices had not declined so much as costs.) But even in this period, had the banks not retained their securities and purchased others from the public, prices probably would have fallen too much.[1] A study by the Federal Reserve Board reveals that from 1915 until 1942 the rise in cash and deposits was less than in gross national product, but since 1942, the rise in the former exceeds that in the latter. Whereas the ratio of money and deposits to GNP was 60 per cent in 1936–1939, it was 50 per cent in 1942 and more than 65 per cent by the third quarter of 1945[2] (see Chart 3).

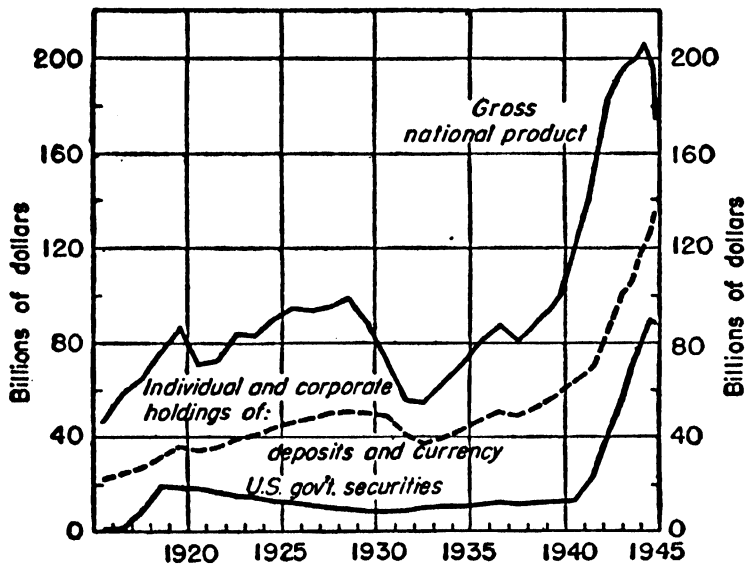


CHART 3.—Gross national product and individual and corporate holdings of cash and Government securities. (*Source: Federal Reserve Bulletin.*)

In general, the growth of deposits in the years 1914–1929 is largely explained by factors other than the sales of government securities to banks. After 1929, it is another matter. Business was not inclined to borrow from the banks—sales of government issues to banks account for expansion of monetary supplies.

In the period 1929–1933, prices tumbled drastically; but from 1933 to 1944 they gradually rose, until by 1944 they were once more at the 1929 level. Had the banks not been able to purchase government securities in the years 1929–1945, and assuming that there was no alternative method of creating deposits, the total supply of deposits would have remained relatively stable from 1929 to 1945. (Actually, they rose by $84 billion.) The reader can readily imagine what the price history of the period 1929–1939 in particular would have been if government securities had not been available to the banks.

[1] *Cf.* Seymour E. Harris, "The Commercial Theory of Credit," *J.P.E.*, 1936, pp. 94–105, especially p. 102.

[2] *F.R.B.*, November, 1945, p. 1092.

9.4. IF GOVERNMENT SECURITIES HAD BEEN UNAVAILABLE, WOULD BANKS HAVE PURCHASED OTHER ASSETS? To the argument that expanding public debt provided necessary supplies of cash, the reply may be made that if the government had not made securities available to the banks the banks would have purchased other assets, thus providing the necessary supplies of money. The writer finds little support in our recent economic history for this hypothesis. Ever since World War I, business had been liquidating its debt to the banks and relying increasingly on internal funds. From 1927 to 1929, to be sure, a large rise of bank loans occurred. But these were, in no small part, loans on securities. It may be admitted, however, that if the banks had not purchased government securities in large quantities the amount of cash flowing into business would have been reduced and loans from banks might have been increased to some extent.

In the years 1930–1933, when the Federal Reserve banks embarked on the most ambitious program of open-market operations and creation of deposits yet attempted, there was little disposition by the banks to lend, or by business to borrow. In fact, from 1930 to 1933, loans by commercial banks fell from 32 billion dollars to 16 billion dollars. Cash manufactured by the reserve banks was absorbed by the member banks to repay debts, to pay for increased money demanded by the public for transactions and hoards, and to export gold. Here was an opportunity for the business community to increase its loans from the banks—but that opportunity was not exploited.[1]

We may conclude from our analysis by periods that the expansion of public debt provided essential supplies of money and that the void would not have been filled through purchases of other assets by the banks.

The reasons for this conclusion are as follows:

1. *A structural change in business was reflected in a declining ratio of loans to all earning assets of banks.* The increasing independence of business from banks is partly but not wholly explained by expansion of monetary supplies. (As the money is disbursed by the government or former holders of securities, it flows in large part to business.) Business consistently reduced its debts to banks—in periods when government issues outstanding were rising, as well as in periods when they were declining. Both the crash of 1920 and that of 1929 left business wary of short-term debts.

2. *History does not support the thesis that, in the absence of increased purchases of Treasury issues, the banks would have purchased other earning assets in similar proportions.* In periods when the banks were not expanding their holdings of government issues and large bank reserves were available, the business community showed little interest in expanding their bank loans—*e.g.*, 1930–1932, 1937–1939. The repayment of loans to the banks continued even with the expansion of reserve-bank activities in 1930–1933—when the reserve banks were forcing vast amounts of new cash on the banks and the need of more money was great. Finally, the writer is not convinced by the argument that, if the government had not sold securities to the banks, business would have been more enterpris-

[1] Seymour E. Harris, *Twenty Years of Federal Reserve Policy*, Part VIII, 1933.

ing and borrowed sums approximating the value of securities actually sold to the banks. (1) The history of bank loans does not clearly indicate this outcome. (2) The rise of public debt is only one of many factors determining the amount of risk taking and borrowing by business.

9.5. EFFECTS OF NONREPAYMENT ON MONETARY SUPPLIES AND INCOME. *A nonrepayment policy may be justified, irrespective of the Treasury's capacity to repay, if the alternative is monetary contraction and large reduction of national income.* Even the Treasury may gain from a nonrepayment policy if national income is maintained and taxes are increased adequately. Incidentally, the banks' earnings would be maintained also; but the primary justification of debt policy is not the assurance of banks' earnings, but the need to provide the country with adequate supplies of money and to exclude an onerous tax burden.

ISSUE OF INTEREST-FREE MONEY

9.6. THE CASE FOR FINANCING DEPOSITS BY ISSUING GREENBACKS. The possibility of issuing greenbacks instead of interest-bearing securities must have occurred to the reader. Professor Simons advocated with vigor and ability reliance on government issue of greenbacks rather than reliance upon sale of government securities to the banks.[1] And there would be certain advantages—the government would be saved the expense of interest on the public debt, and the facts of government deficit finance and the points at issue would be plain for the public to understand. (Incidentally, a policy of debt finance through creation of greenbacks would be consistent with the 100 per cent plan of banking reserves which Prof. Simons favored.)

9.7. THE CASE AGAINST INTEREST-FREE NOTES. But certain major drawbacks plainly outweigh the advantages. (1) One important objection is that the issue of greenbacks would undermine the confidence of the public in our monetary system much more than does the sale of government securities yielding a return. In the case of greenbacks, the government would rely on compulsion; in the case of government securities, it is a matter of voluntary choice by the buyers, at least to a substantial degree.

2. A second significant point to be made against greenbackism is that the rise in the supply of money would be considerably greater and more inflationary than under our present system of debt finance through sales of government securities. Thus wartime issues of government securities were $220 billion, and purchases by banks, which may roughly be classified as inflationary sales, were about $90 billion. A rise of *deposits* of $90 billion under the present system should be contrasted with an expansion of money (*cash reserves*) of $220 billion under the alternative system of issue of greenbacks—a far greater stimulus to inflation.

[1] See, especially, H. C. Simons, "Hansen on Fiscal Policy," *J.P.E.*, 1942, pp. 161–196 "Symposium on Monetary and Fiscal Policy," *R E.S.*, May, 1946.

3. Under the system of government issue of greenbacks, moreover, this inevitable exchange of notes for deposits by the public would upset the monetary system. Banks ordinarily can turn in government paper money to the central banks as reserves. Their reserves might well rise then from approximately 20 billion dollars to 220 billion dollars—the inflation potential would be staggering. A way to avoid this, of course, would be large increases in reserve requirements—perhaps approaching 100 per cent. A rise of reserves of these proportions constitutes a revolutionary change in banking techniques.[1]

4. Finally, a rapid expansion of monetary supplies and the ensuing excessively rapid reduction in rates would upset the whole economy. Life-insurance companies and banks might well become bankrupt; the effect on capital values in general would be disturbing,[2] if not disastrous.

All this leads to the conclusion that the financing of government debt through the issue of interest-free greenbacks is not to be recommended. As we shall see in Chapter XXIV, however, a stronger case can be made for debt repayment by issues of greenbacks in response to increased requirements for cash.

PROPOSED RELATIONS WITH BANKS

9.8. RETURNS TO BANKS SHOULD, HOWEVER, BE SCRUTINIZED. Although, for reasons stated in the preceding section, the substitution of interest-free greenbacks for our present system of interest-yielding securities is unacceptable, the present system is not entirely satisfactory either. If greenbackism would jeopardize the banking system, the present system may be overgenerous. The creation of money, a government prerogative—the Constitution specifically gives Congress the right to create money and regulate its value—has now virtually been delegated to the banks. *It is incumbent upon the government to see that the banks do not charge it excessively for the exercise of a privilege conferred upon them by the government.* In buying government securities and creating deposits, the banks undertake a task that is relatively simple and riskless. They certainly should not be allowed more than costs plus a modest profit.

At the peak of World War II, the banks earned about 1.4 per cent gross on their government securities. If allowance is made for the taxes paid by banks and their stockholders, the net rate would be

[1] *Cf.* C.E.D., *Jobs and Markets*, especially Ch. VI, 1946, for some bold and interesting proposals along these lines; also L. Seltzer, "The Problem of Our Excessive Banking Reserves," *J.A.S.A.*, 1940, and "The Changed Environment of Monetary-banking Policy," *A. E. A. Proc.*, 1946, especially pp. 76–78. Seltzer in 1940 proposed an ingenious scheme for raising reserve requirements and cutting the cost of the debt.

[2] *Cf.* Oxford University Institute of Statistics, *The Economics of Full Employment*, pp. 112–113, 1944.

about 1 per cent. In holding down returns on government securities held by the banks, the Treasury, on the whole, did a much better job in World War II than in World War I, and to that extent it prevented profits from soaring. Yet banking profits in World War II were high when compared with profits of other lines of business.[1] By restricting banks in their purchases of securities having large yields, and by selling them low-yield securities, the government kept down interest on securities held by banks. Some have held that the government might have squeezed the banks even more, and there are grounds for this position. In view of the fact that the manufacture of money is a government prerogative virtually delegated to the banks; in view of the protection given by the guaranty of deposits; in view of the small risks involved in buying short-term government securities, or even long-term issues under government control of security prices—in view of all these considerations, the government might well have given even somewhat less favorable terms to the banks.[2]

9.9. THE INCREASED IMPORTANCE OF THE RATES PAID TO BANKS. As the public debt rises, the problem of interest on the debt becomes one of increasing importance, and for a simple enough reason: a debt that yields 1 per cent is only one-half as costly as one that yields 2 per cent. *With growth of debt and with the banks possibly underwriting increasing proportions of it in the future, it is imperative that arrangements be made which are fair to the government, to the taxpayers, to the banks, and to those who require the services of the banks.* If, for example, the banks were paid 1 per cent instead of 1.4 per cent, the gross savings on *all* government securities outstanding would be $1\frac{5}{100}$ of 1 per cent, and with increased relative absorption by banks, the savings would be greater. In the postwar, even after allowance of tax losses, gains for the Treasury might be the equivalent of a reduction of interest on all issues of $\frac{1}{4}$ of 1 per cent, or one-eighth of the interest on debt, or approximately the cost of financing between 30 and 35 billion dollars of debt. Banks are entitled to a return equal to other enterprises that are also relatively riskless—say, 3 or 4 per cent on their invested capital. *Reduced profits on government issues should be regarded as inevitable, and banks should obtain a larger proportion of their gross receipts from nongovernment customers*, and

[1] *F.R.B.*, April, 1946, p. 381. In 1945, annual net profits of all member banks as a percentage of capital were 11 per cent; for other businesses, 7.6 per cent.

[2] P. A. Samuelson, "The Effect of Interest Rate Increases on the Banking System," *A.E.R.*, March, 1945, pp. 16–28; Seymour E. Harris, "A One Per Cent War?" *A.E.R.*, September, 1945, pp. 667–671; *F.R.B.*, April, 1946, pp. 376–383; and Seltzer, *op. cit.*

in particular from service charges. In this manner, a given cost can support a higher debt than under present arrangements.[1]

9.10. CONCLUSION. In summary, we can say that, more than any other factor, the large growth of public debt accounts for the rise in monetary supplies. Although, to some, this may seem an argument against public debt, to others, it is a strong point in its favor. Without a large expansion in debt, the supplies of money might well have been quite inadequate for the needs of our economy—with adverse effects on output and income. If a large outstanding debt is a condition of a sound monetary system, then an eventual policy of debt repayment should be considered in the light of effects on outstanding supplies of money. Since the banks hold a large proportion of outstanding Treasury issues and since these securities form the basis of monetary expansion, the interdependence between money and government finance is obvious. Expanding monetary supplies account for the current low rate of interest; and the lower the rate of interest, the larger the debt potential. We must, therefore, give careful consideration to the rate of interest paid to banks. Finally, in this chapter, we have briefly discussed the case for greenbackism as against interest-bearing debt and explained our reasons for favoring the latter against the former. We shall return to the problem of postwar interest rates in Chapter XXIII, and to debt repayment in Chapter XXIV.

[1] Harris, *op. cit.*

Chapter X

Rising Public Debt and Inflationary Pressures

INTRODUCTION

From the discussion in the preceding chapter of the monetary aspects of debt growth, we come naturally enough to the inflationary effects of debt growth. The dangers of a growing debt are enumerated and assessed and the relevant variables discussed. We turn first to a few general remarks about inflation and then to a consideration of the inflationary aspects of sales of government securities to banks.

Before starting the main discussion, we should present the ABC of war inflation.[1] In general, it may be assumed that, when cash is transferred to the Treasury out of savings to pay for securities, or in payment of taxes, the Treasury spends what otherwise would have been spent by the saver or taxpayer; hence no inflation results. (This, as we shall see, is subject to serious reservations.) When the Treasury borrows from the banks, however, the latter put corresponding deposits at the disposal of the government. Here the net result is an expansion of government deposits, ultimately to be transferred to their creditors, and, therefore, sales to banks are considered inflationary.

The relation of sales of government securities to banks and deposit growth is indicated by Chart 4. From December, 1941, to September, 1945—the war period—bank deposits and currency outstanding rose from 78 to 163 billion dollars, or a rise of $85 billion. In that same period, banks' investments in government securities rose by $91 billion.[2] Chart 5 reveals that all active banks in the United States increased their investments in United States direct and guaranteed obligations from $19.4 billion on Dec. 31, 1939, to $94.2 billion on June 30, 1945—or from 25 to 58 per cent of all their assets.

[1] A fuller discussion will be found in the writer's *Inflation and the American Economy*, Chs. I–IV and Conclusion, 1945.

[2] *F.R.B.*, November, 1945, p. 1094.

Large sales of government securities to commercial banks on the required scale would have been impossible if the monetary authorities had not provided the banks with additional cash through sales of government securities to the reserve banks by the Treasury directly,

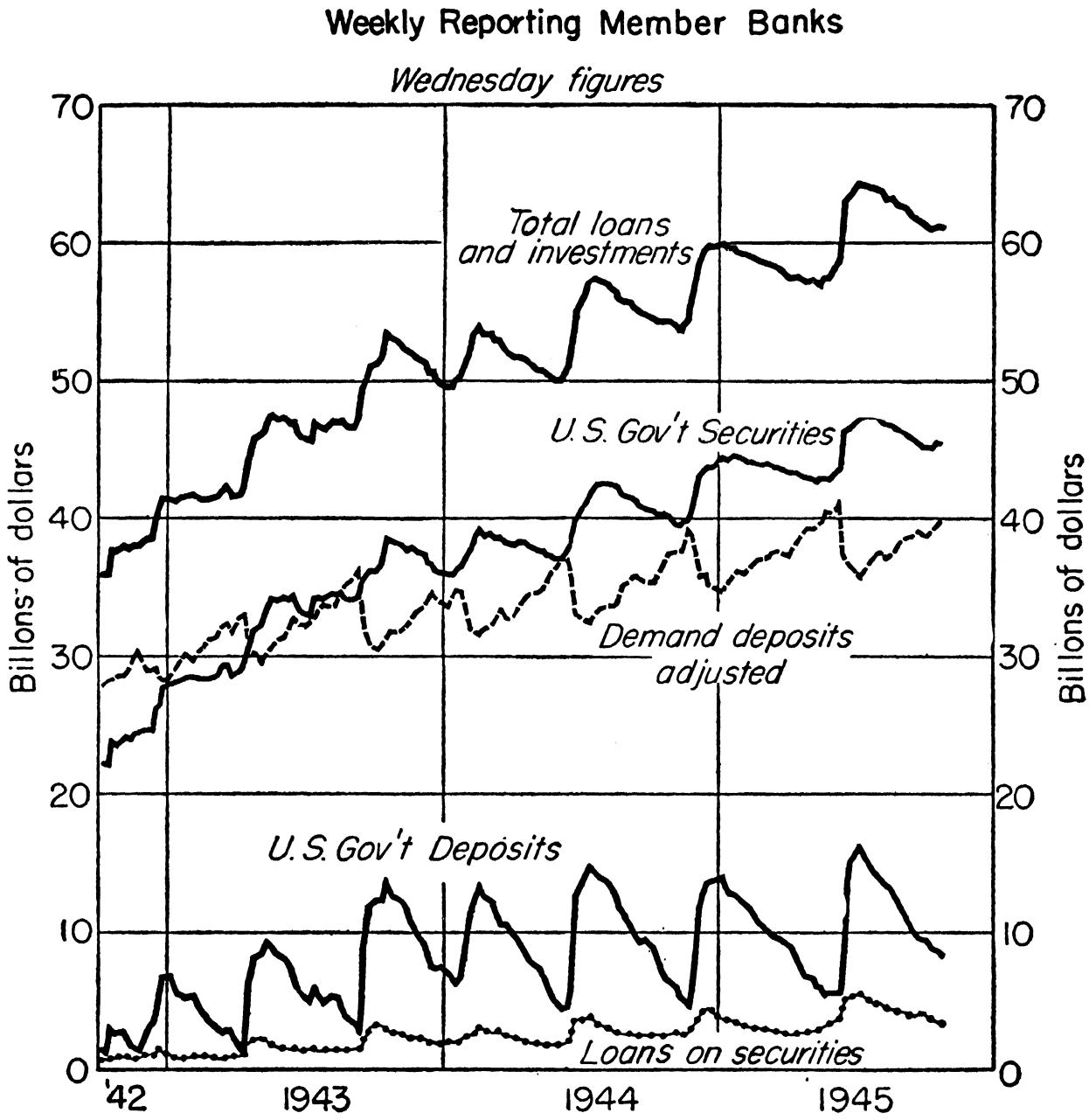


CHART 4.—Sales of Government securities to banks, and deposit growth. (*Source: Federal Reserve Bulletin.*)

or indirectly through sales from banks to the reserve banks. As reserve banks buy public securities, a corresponding amount of deposits (reserves of commercial banks) are created; the banks are then in a better position to buy government securities. It will be noted from Chart 6 that for the most part the rise in reserve bank credit (resulting

from purchases of government securities) would not have been necessary had not (1) money in circulation risen greatly and (2) gold stock declined to some extent—member banks pay for both with reserves.

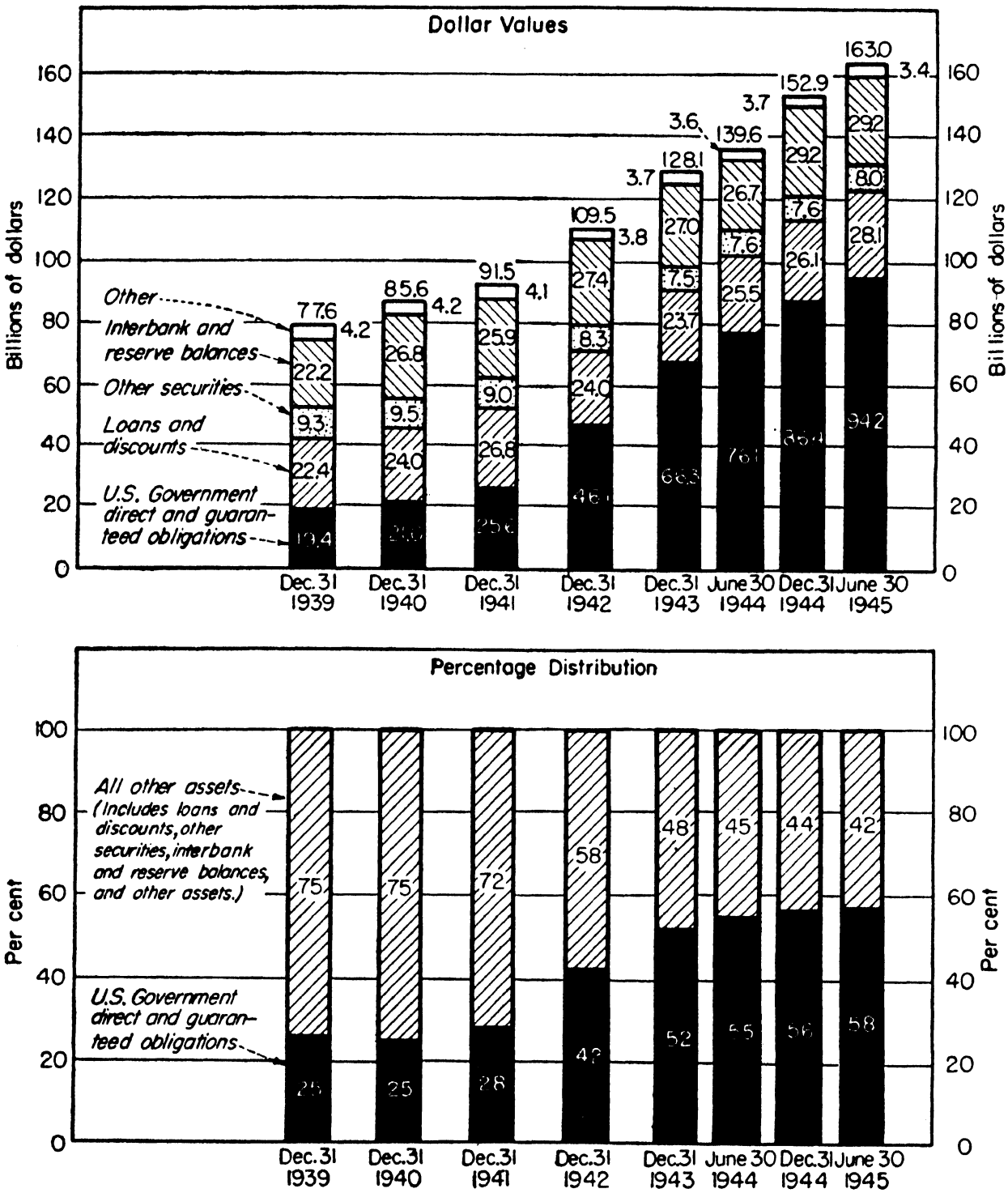


CHART 5.—Assets of all active banks in the United States, Dec. 31, 1939, to June 30, 1945. (*Source: U.S. Treasury Bull.*)

Another contribution to the required reserves of banks originated in the excess reserves available in 1940—but largely used up by the end of 1945.

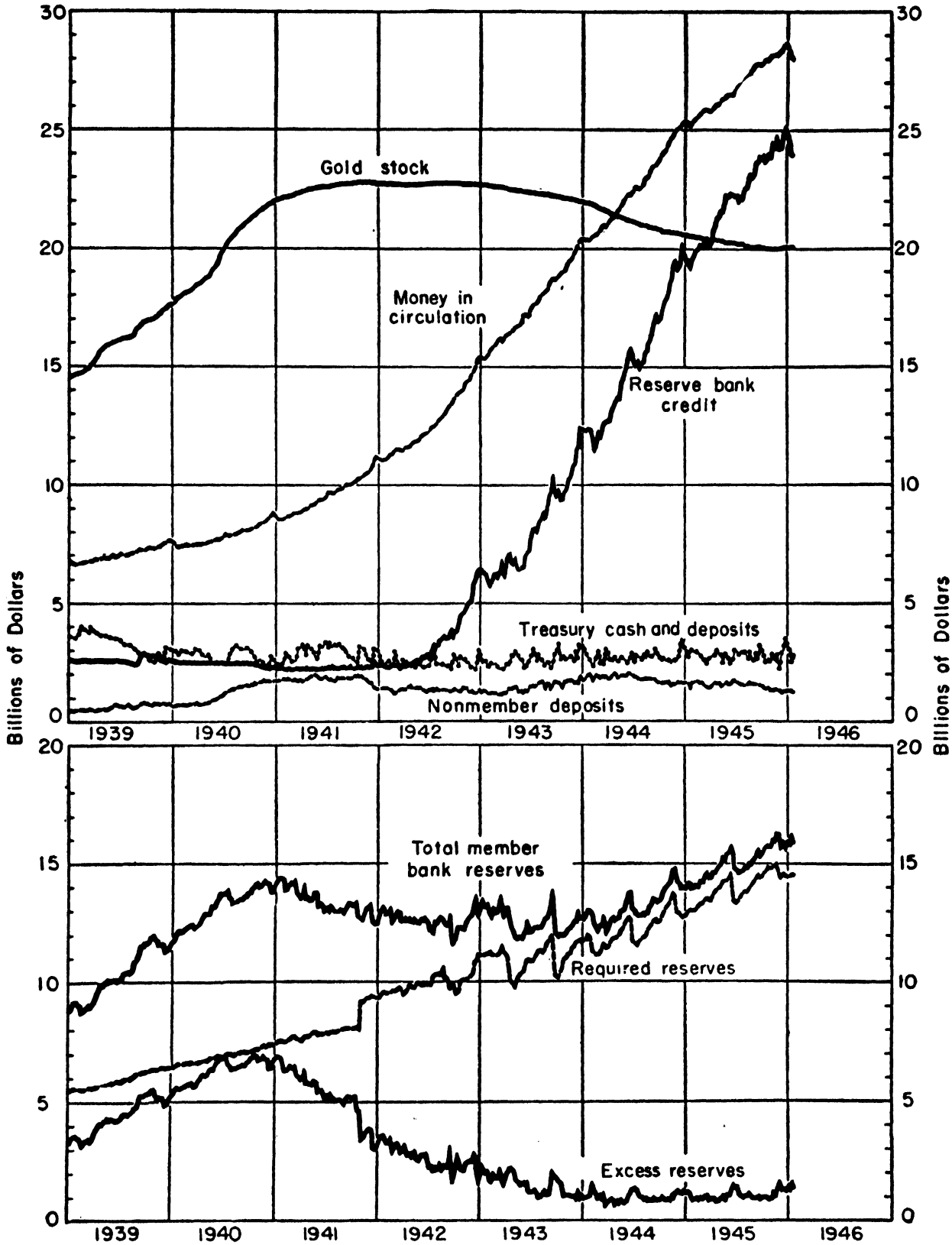


CHART 6.—Member bank reserves and related items, 1939–1945. (*Source: Federal Reserve Bulletin.*)

INFLATION IS NOT DESIRABLE

10.1. THOUGH IT MAY BE HELPFUL UNDER CERTAIN CONDITIONS. Critics of deficit financing are especially concerned over the inflationary effects of the growth of public debt. They assume that inflation is bad for the country because of adverse effects on both production and distribution, and in general I would agree with them: inflation is usually not a symptom of a healthy economy.

There are, of course, conditions under which inflation may not be harmful. In his important volume, *Banking Policy and the Price Level*,[1] Prof. Robertson in 1926 showed that there are times when the inflationary process might provide required savings which otherwise would not be forthcoming. Along somewhat similar lines, a strong case could be made out for inflationary policies of Latin American countries over the last few generations—these policies have helped them obtain some badly needed capital. At times, however, this inflation advanced too rapidly and the masses suffered.[2]

We conclude that inflation, in general, should not be encouraged; any policy that brings substantial inflation has one tally scored against it from the start. In the United States, in particular, with its adequate, if not excessive, savings, the argument for inflation on grounds of providing required capital can carry little if any weight. Even in wartime, we seemed to achieve the necessary diversions despite an anti-inflationary policy.

INFLATION AND SALES OF GOVERNMENT ISSUES AND BONDS

10.2. PURCHASES BY GENUINE SAVERS NOT NECESSARILY NONINFLATIONARY. It is clear that deficit financing may bring inflation, and this even if the government tries (and succeeds in) borrowing money from genuine savers. If the government succeeds in borrowing from savers, then at least monetary expansion is avoided. *Yet even borrowing from savers (i.e., nonbanking lenders) may be inflationary insofar as the government obtains and thus activates cash or deposits that otherwise would have been idle.* I say "may" because against the rise of *active* money is to be put the increased supply of goods. If a rise in active money tends to increase prices, a rise in the supply of goods tends to reduce them.

10.3. THE RELATION OF SAVINGS AND SALES OF GOVERNMENT SECURITIES. What usually concerns the inflation-conscious is the sale of government issue to the banks and (or) the government's recourse to the printing press in order to finance itself. These inflationary methods are adopted either because the public does not have adequate savings to absorb all Treasury issues, or because it is unwilling to buy government securities.

[1] Especially Chs. 6, 7.

[2] *Cf.* Seymour E. Harris (editor), *Economic Problems of Latin America*, Ch. 1, 1944.

A general understanding of the arithmetic of public borrowing can best be had from a specific example. Table 6 relates to the fiscal year 1944.

TABLE 6.—INCOME, SAVINGS, EXPENDITURES, PURCHASES OF GOVERNMENT SECURITIES, FISCAL YEAR 1944
(In billions of dollars)

Gross income flow	197	
Federal taxes (government's disposable income)	41	
Government expenditures		93*
Disposable income	156	
Expenditures by individuals, corporations, state and local governments	104	
Liquid savings		52
Sales of government securities to the nonbanking public	38	
Sales of government securities to commercial banks	16	

* Government expenditures (93) minus taxes (41) = liquid savings (52).

SOURCE: Adapted from U. S. Secretary of the Treasury, *Annual Report on the State of the Finances*, 1944, pp. 82–93. *Cf.*, *Treas. Bull.*, April, 1946, pp. A-11–A-15.

1. Gross income flow was 197.
2. Federal taxes were 41, leaving 156 of disposable income.
3. Of this total, 104 was spent by individuals, corporations, and state and local governments, the residual of 52 being liquid savings. The federal government, on the other hand, had only 41 of disposable income, and expenditures were 93, the difference being 52. The public made 52 available; the federal government thus required 52.[1]
4. Net absorption of government securities by nonbanking lenders was, however, significantly less than 52—approximately 38. Banks invested 24 net in government securities. That nonbanking investors purchased substantially less than their liquid savings is explained by an increasing disposition to hold savings in cash.

Individuals had 39 of liquid savings in the fiscal year 1944, of which they transferred 15 to other investors, *e.g.*, savings banks, private insurance companies. In addition, they added 9 to their currency and checking accounts. Their net purchases of government securities were but 15.[2]

Direct purchases by individuals were then but $15 billion and, inclusive of sales by savings institutions to which they transferred savings, only $26 billion.[3] *Individuals* with $156 billion of income payments and $134 billion disposable income purchased but $15 billion of government securities directly and $11 billion indirectly. *That banks had to purchase* $24 *billion, or about* 40 *per cent, of the new issues is explained in part by the rise of consumption expenditures by individuals, and in part by the public preference for cash over securities.*

[1] Actually, the amount put at the disposal of the government was not $52 billion, but rather $54 billion (38 + 16, *i.e.*, last 2 rows) plus $8 billion by Federal Reserve banks. The excess of $10 billion (62 over 52) seems to have been absorbed in a rise of Treasury cash. *Treas. Report*, 1944, p. 93.

[2] *Ibid.*, p. 82.

[3] *Ibid.*, pp. 84, 91.

These last facts are summarized in Table 7.

TABLE 7.—INDIVIDUAL SAVINGS, PURCHASES OF TREASURY ISSUES, AND ADDITIONS TO CASH
(In billions of dollars)

1. Individuals' liquid savings	39
2. Transfers to savings institutions	15
3. Additions to cash and checking accounts	9
4. Net direct purchases of securities [1 − (2 + 3)]	15
5. Indirect purchases—through savings banks and life insurance companies	11
Total (4 + 5)	26

SOURCE: Adapted from *Annual Report on the State of the Finances*, 1944.

10.4. SALES TO BANKS, GROWTH OF CASH AND DEPOSITS, AND NET INFLATIONARY EFFECTS. Let us pursue somewhat further the investigation of the diversion of savings to cash and deposit accounts. *Insofar as Treasury borrowing was offset by the piling up of cash and deposits out of current income, the sales to banks might be considered noninflationary.* Against the expansion of deposits resulting from sales of issues to the banks—they credit the government with a deposit for securities purchased—is to be put the sterilization of equivalent amounts of money put aside by income recipients.

We may contrast the results when (1), as in the present case, the public hoards and the banks buy, with (2) the sequence when the public, instead of hoarding cash, uses it to purchase securities. When the banks buy and money hoards rise, more money is outstanding than there would have been if, instead of increased hoardings of cash by the public, purchases of securities had been made by the public. In later years, the threat of inflation is, therefore, increased, as compared with (2) where the public uses additional cash and deposits to buy securities, for under (1) larger supplies of money remain outstanding.

LATE STAGES OF DEBT EXPANSION

10.5. THE INFLATIONARY THREAT OF FINANCING INTEREST PAYMENTS. So far the discussion has centered largely on the inflationary aspects of sales of government securities to banks. It is now necessary to consider some monetary repercussions of the continued expansion of such sales.

Critics of deficit finance are concerned lest, with the expansion of the public debt, the government will have to borrow relatively more and more from the banks to provide not only the government's current expenditures, but also to cover interest payments that will be higher each year as more and more government securities are outstanding. If, for example, 50 years from now the

interest payments on the debt are $10 billion annually, *ceteris paribus*, the government will have to spend about $20 billion out of borrowed funds to stimulate the economy to the extent that $12 billion would have achieved at interest payments of $2 billion annually. With interest payments rising, more issues will have to be sold to the banks in order to yield a given rise in demand—it is assumed that interest payments are only transfers and do not increase demand, and in response to the piling up of debt the public will be less and less disposed to hold their Treasury obligations and participate in the purchase of new issues.

This lack of disposition by the public to buy issues will be aggravated *in the years immediately ahead* as commodity prices rise in response to expanding supplies of money or demobilization of controls. Unwilling to hold an asset that yields a fixed income while prices are rising, they will prefer to buy commodities, real estate, and common stocks.

If space were available, we might discuss the more general inflationary effects of a large and growing debt. These issues have, however, been discussed elsewhere.[1]

INFLATION IN WAR

10.6. INFLATIONARY PRESSURES IN WARTIME AND THEIR CONTROL. The inflationary dangers of public debt, then, are real. *We should, however, distinguish war from nonwar problems.* In war, the question of public debt is not a matter of choice, but of compulsion. But under certain peacetime conditions—when, for example, unemployment is prevalent and private enterprise cannot supply enough jobs for the unemployed—proponents consider deficit finance necessary also. Although in this chapter we should concentrate our attention on *peacetime* public debt and its inflationary effects, we shall digress briefly here to the problem of *wartime* public debt and its inflationary effects—which are just as real and unsalutary—because there are object lessons to be learned.

In many respects the dangers are greater in war than in peace. Goods and services must be diverted to the military, irrespective of the costs in terms of inflation or of standards of living. The pace of wartime spending is indeed tremendous and unequaled. A strong inflationary impetus is added in war, because a significant part of the total

[1] F. D. Graham, *Exchanges, Prices, and Production in Hyper-Inflation: Germany* 1920–1923, pp. 40 *ff.*, 1930. Seymour E. Harris, *Inflation and the American Economy*, Part I, 1945.

output is diverted to war. This country's output of goods at the war's peak was $200 billion a year, but $90 billion of it went to war. Whereas income was $200 billion, only $110 billion of goods were available; in fact, when allowances are made for other government expenditures and the like, only $95 billion of consumption goods were to be had. The resulting inflationary pressures are easy to visualize: net incomes of $160 billion, disposable incomes of $140 billion, and only $95 billion of consumption goods available.[1]

In the years 1940–1945, 42 per cent of government expenditures were met out of tax revenues, 36 per cent by borrowing from nonbanking investors, and 22 per cent by sales to banks, inclusive of savings institutions.[2] Chart 7 presents year-to-year figures and reveals a declining percentage of inflationary sales and a rising percentage of noninflationary sales and taxes.

A succinct summary of wartime finance is given in Table 8. (Chart 7 gives figures for the years 1940–1945.)

TABLE 8—WAR FINANCE, JULY 1, 1940–JUNE 30, 1945*
(In billions of dollars)

Federal government	
Expenditures	323
Tax receipts	133
Deficit	190
Private economy	
Income after taxes	651
Expenditures	469
Surplus	182
Add surplus, local and state governments	8
	190

SOURCE: Adapted from *Treas. Bull.*, December, 1945, pp. A-1, A-2.
* *Cf. ibid.*, April, 1946, pp. A-11 to A-15, for similar figures covering the six years 1940–1945.

The task of the government was to attract, through sales of Treasury issues, as much as possible of the $190 billion of available savings. Actually, nonbanking investors purchased $122 billion of public securities; the remainder of the savings were put into cash and deposits. The difference between these two series might be considered an index of net inflationary pressures. There is, however, a disposition in official circles to minimize the inflationary effects of the expansion in money and deposits. Under Secretary Bell, for example, explained

[1] *Gross* national product is larger than *net* national income, since it includes various items not included in the latter, *e.g.*, expenditures to maintain capital.
[2] *Treas. Bull.*, April, 1946, pp. A-10 to A-12.

a rise of $18 billion of currency by the increased requirements of a prosperous economy. Allowing for the rise in corporate and other business deposits and time deposits, he also concludes that only part of the $11 billion of the $50 billion of new deposits are in fact "hot" money— for part of these are regarded as savings.[1]

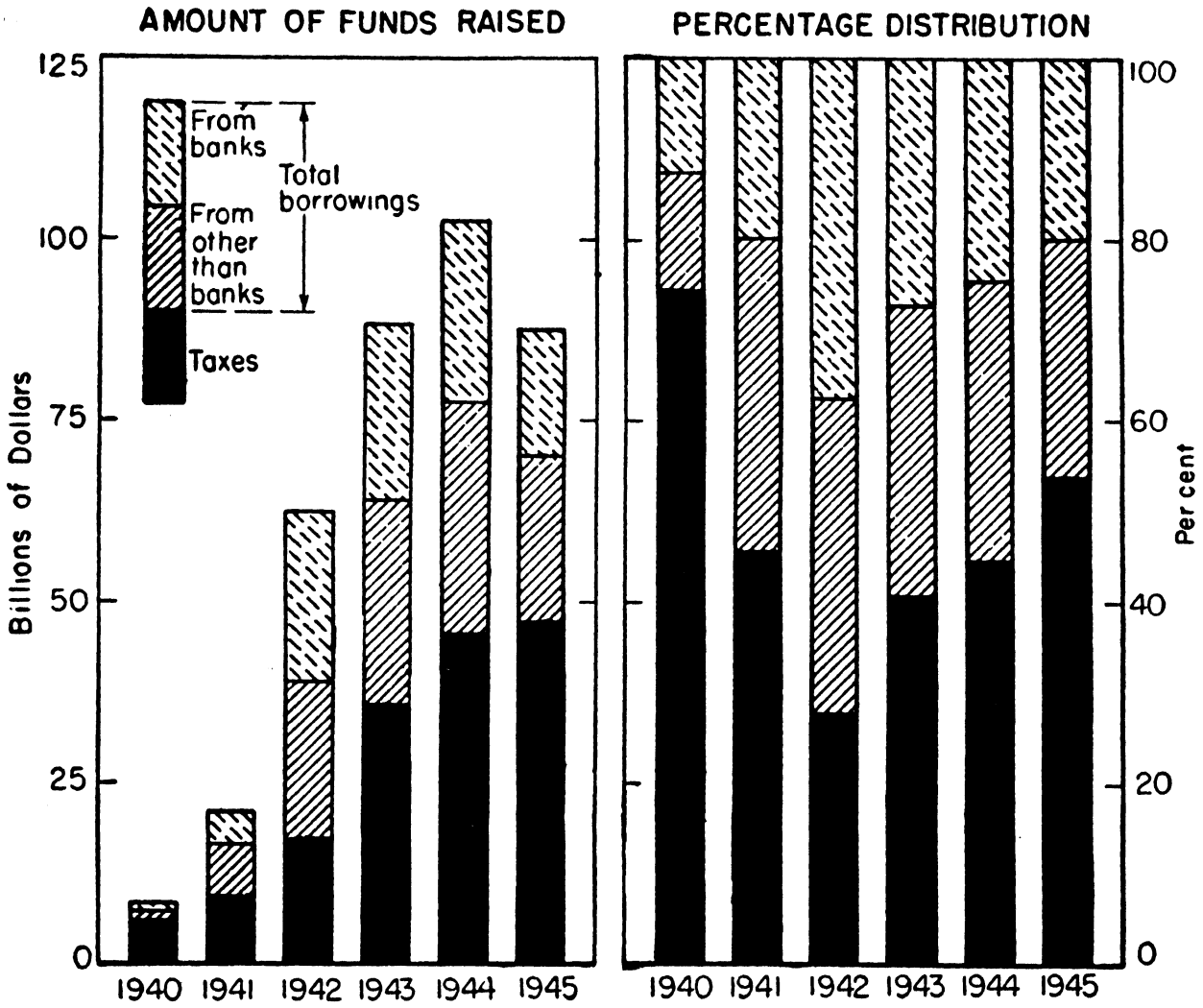


CHART 7.—Sources of Treasury funds, by calendar years. (*Source: Survey of Current Business.*)

The view has also been expressed officially that the public required additional money during the war and that, therefore, sales of securities to banks were not inflationary, for they are associated with the need for additional cash. If the public needs more cash, it is the function of the banks to provide it.[2] But this leaves out of account the relation of additional money requirements to any rise of prices associated with Treasury finance, or with the unavailability of goods in desired qualities. Had the banks not manufactured deposits for the government, there would have been less goods produced and less

[1] *Treas. Bull.*, December, 1945, pp. A-1 to A-3; *cf.*, April, 1946, pp. A-11 to A-15.
[2] *Ibid.*

money required. In short, the expansion of money is in part noninflationary—a reflection of increased transactions—and in part a symptom of inflation—a reflection of higher prices and inadequate supplies of goods.

So much for the overall wartime inflation picture. *Inflation can be held in check even in wartime* and was held in check in World War II. These problems have been dealt with elsewhere.[1]

UNEMPLOYED RESOURCES AND DEFICIT SPENDING

10.7. RELATION OF INCREASED DEMAND, RISE OF OUTPUT, AND NET INFLATIONARY FORCES. Now we resume our discussion of the peacetime inflationary effects of deficit finance, *i.e.*, we consider especially the inflationary aspects of public-spending programs directed toward putting unemployed resources to work.

Clearly here we must take into account not only the expansion of money, but also the increase of output that results from putting unemployed resources to work. One must not too readily assume, however, that the process is necessarily noninflationary because of the rise of output. Keynes stated as early as 1936 in a brilliant chapter in his *General Theory*[2] that rising prices would be incurred long before full employment was attained. And history in the years 1933–1937 and in World War II have verified Keynes's point. In this country for example, the war preparations began with 10 million unemployed and, by the end of 1941, although substantial amounts of unemployment continued, prices had risen by about 10 per cent; and this despite increasing controls.

Prices rise early in response to a significant expansion of demand; they do so even though over-all supply may be quite satisfactory. The new demand affects some groups more than others, and some markets more than others. There is not perfect mobility, nor is there perfect substitutability of one commodity for another, or one material or component for another. It takes time to move labor and to remove other existing bottlenecks. A significant expansion of demand also gives rise to other results. The favored groups ask wage and price increases, not waiting until full employment is attained or excess capacity is accounted for or excess inventories are sold. The fact that there are

[1] For a full discussion of controls and inflation, the reader should consult Seymour E. Harris, *Price and Related Controls in the United States*, and *Inflation and the American Economy*, 1945. Also see, *F.R.B.*, May, 1946, pp. 505, 523.

[2] J. M. Keynes, *General Theory of Employment, Interest, and Money*, Ch. 21, especially p. 296, 1936.

unemployed lumbermen on the Pacific Coast, for example, will not deter lumbermen in the Atlantic region, encouraged by early orders, from asking higher wages; nor will the unemployment of excess plumbers prevent urgently needed mechanics from demanding higher rates of pay. Surplus supplies and capacity in iron and steel, for example, will be of little use in preventing price increases in aluminum if the latter is greatly in demand and supplies cannot be increased easily or quickly.

Prices rise, then, in early response to a significant expansion of demand, and to some extent the effects are salutary. For, a rise in prices attracts new members into the labor market, encourages imports of substitutable commodities, and stimulates the output of additional, if high-cost increments. If, moreover, a rapid rate of expansion in output is required, then not only will entrepreneurs seek price increases in response to increased wage rates, taxes, and the like, but they may be confronted with a rise in *real* costs per unit. *In summary, an expansion of money, the frequent accompaniment of deficit financing, will bring in its wake price rises long before a position of full employment has been attained.*

FULL EMPLOYMENT AND INFLATION

10.8. WAGE INFLATION. It is clear from the last section that prices will rise long before full employment is reached. Some price instability is a necessary cost of a high-employment economy. We should, however, try to keep prices as stable as possible, consistent with the attainment of our objective, *i.e.*, full employment. Perhaps the most important single inflationary factor is wage inflation. We now discuss wage policy and then turn to possible corrections of inflationary pressures.

Labor will seek increases in rates, which may well not be justified by productivity. If trade unions had a national wage policy, the dangers of wage inflation would be greatly reduced. Then we would not have the unsettling state of affairs wherein each trade union sought higher wage rates, which for the most part would improve the position of its workers only if other groups did not pursue similar policies. A correct national wage policy would take into account the effects on prices and real wages of any general increase of money wage rates. Wage policies determined by thousands of trade unions each trying to improve its position at the expense of the rest of the nation are obviously inferior to a general policy. We can draw the analogy of an

orderly seating plan for spectators at a football game in contrast to no plan at all, whereupon each tries to improve his position by jumping on the back of the man in front of him.

10.9. INFLATIONARY CORRECTIVES. Granted that we want a high level of effective demand for high or full employment, then what is the manner of dealing with the inflationary threat? One obvious way out is to allow prices to rise, offsetting the increase in the cost of living by subsidies on cost-of-living items, and higher taxes to be paid by non-wage earners. Thus, the excess of demand exercised by labor would be offset by a reduction in demand by others. Some additional help may be had through price and other controls—particularly if the effect is to exclude marginal or high-cost units and to encourage elimination of nonessential expenditures.

10.10. AUTOMATIC CORRECTIVES. But this is not the only way to eliminate the threat of inflation. Another approach to the problems is suggested by Keynesian economics. On this approach, price and wage rises are assumed to bring their own correctives.

In his *General Theory*, Keynes discussed the checks imposed upon rising wage rates by an inelastic monetary system. With the resulting rise of prices, rates of interest would increase and unemployment would grow. Equilibrium would then be established at a point short of full employment.[1] These checks imposed by the monetary system are, of course, greater the more sensitive a country is to international forces, *e.g.*, the more dependent it is on export trade, and the smaller its excess reserves. Hence the checks are more significant for Great Britain than for the United States.

We should not leave this discussion without pointing out that *in programs of deficit financing, which are introduced to cope with the problem of unemployed resources, the presumption is that the government will obtain the necessary resources primarily through sales of government securities to savers, whose inactive savings would not otherwise be used in investments.* Instead of an expansion of money, the net effect would be a *diversion* of idle money to the government. Once a position of full employment or of high employment threatens to be incompatible with moderate price stability, the monetary authority, inclusive of the Treasury, will, it is presumed,

[1] *Cf. General Theory*, Ch. 17 and pp. 306–309, and J. H. Hicks, "Pigou's Lapses from Full Employment," *E.J.*, December, 1945, pp. 599 *ff*. Keynes, of course, emphasized more the demand for money to satisfy liquidity preference than the amount required for transactions, and (related to this) he was concerned over the unwillingness of the community to accept a low enough rate of interest to allow high levels of employment.

adopt neutral or even anti-inflationary measures. How difficult it is to control inflation in a full- or high-employment economy is no doubt apparent from this section; but let the reader not exaggerate the difficulty.

THE CUMULATIVE EFFECTS OF MONETARY EXPANSION

10.11. GROWTH OF PUBLIC DEBT CAN BE CONSISTENT WITH PRICE STABILITY. We saw that the government can manufacture money to finance public debt. How long can it continue *pari passu* to manufacture money with the growth of debt? Debt expansion may go on, and particularly with World War II behind us, without recourse to sales of issues to the banks. The government may mop up excess savings, *i.e.*, idle cash, through sales of securities. Moreover, there should be periods of debt repayment as well as debt growth.

The success with which Great Britain, the United States, and other belligerents had been able to borrow large sums from the banks without paying the penalty of a significant wartime inflation was a great surprise to many. (In this connection, it is interesting to recall that prior to the Reign of Terror in the French Revolution, the French government had increased monetary supplies by three times and yet prices had risen by only one-third.)[1] As has been noted, expansion of output and the imposition of controls were relevant factors in this success.

In the future, the government, if it desires, can continue to expand monetary supplies and yet prevent a serious inflation through continued expansion of output and maintenance of controls. But of course since none want more permanent controls, we can assume that most, if not all, controls will be dropped. A given monetary expansion will be less dangerous than in war, moreover, because diversions from current civilian to military output will be much less important than in war. We shall, however, have to watch the division of output between consumption and capital goods. Excessive production of capital goods may account for inflation in consumption goods markets. Income earned in the production of capital goods would be available for purchase of consumption goods, and when current incomes are large and amounts pressing on consumption markets inclusive of past savings are large—relative to the flow of *final* consumption goods—

[1] Seymour E. Harris, *The Assignats*, Ch. IV, 1930.

serious inflationary dangers threaten. Again, the threat of inflation in 1946–1947 arose partly because controls were dropped too soon.

10.12. THE MONETARY BREAKING POINT AND MANAGEMENT. *There must, then, be a point beyond which monetary expansion will bring inflation,* but that point cannot be identified with precision. By the end of 1946, our monetary supplies had been increased from 39 billion to 110 billion dollars. Can they rise to $200 billion or $500 billion without bringing the oft-prophesied inflation? It depends. And that is as far as the responsible economist dares go. If, for example, the government continues to depress interest rates and keep prices down and if much uncertainty prevails, liquidity preference will continue to grow, *i.e.*, the public will continue to increase the proportion invested in cash in relation to noncash assets. A larger part of total monetary supplies will be sterilized, and to this extent monetary expansion will not be felt on markets. If, and in fact as a result of the government's policies, output continues to rise, then more money will be required to carry through the increased amount of transactions. These will be offsets to the rise of monetary supplies.

Beyond that, the government must ever be on the watch against inflation. It was the Keynesians who first broached the theory of spending for the purpose of putting resources to work; they were the first to point out the inflationary dangers of positions of full and near full employment. Lord Beveridge now goes so far as to urge restrictions on trade unions which might jeopardize their gains through insisting on wage inflation.[1] Once resources are fully employed, higher wage rates serve merely to bring inflation and neither higher wages nor higher prices will expand output significantly or induce a better distribution of factors.

To the government falls the task then to switch, when necessary, from an anti-deflation to an anti-inflation program, and to switch quickly. To make this manageable we need better integration among congressional committees, better teamwork between congress and the executive, greater administrative discretion for the executive agencies; fuller statistical information—all these and more will be required in order to attain the desired goal. (The Full Employment Bill focused attention on some of the issues.) It will also help to be ready with flexible tax programs; with the machinery to control (1) inventories, (2) consumer credit,

[1] Sir William Beveridge, *Full Employment in Free Society*, pp. 173 ff., 1945.

(3) stock-market margins, (4) down payments on real-estate purchases; with flexibility in tariff rates; with improved mobility of workers; etc. Thus a threatened inflation can quickly be met with the use of monetary measures (open-market operations, increase of reserve requirements), increased taxes and repayment of public debt, rise of margins of all kinds, restrictions on inventory buying, release of supplies from government stocks, stimulation of imports, etc. To consider our modern economy as static is a false premise; to legislate as if it were, will result in disaster.

10.13. CONCLUSION. We may conclude that the growth of public debt brings real inflationary dangers. These dangers arise from large sales of securities to the banks over long periods and ultimately a deterioration of the fiscal position of government. Inflationary potential should, however, be weighed against the deflationary forces likely to arise if the stimulus of spending, when required, is lacking.

In war, the expansion of debt and money, with the accompanying diversion of resources to the government, tends to bring inflation. But in World War II, large rises in taxes, the growth of savings, and recourse to controls kept the rise of prices in check.

In peace, the inflationary dangers are not so great but just as real, and prevention requires less reliance on monetary expansion and more on the absorption of savings, less diversions of output at the expense of income recipients, periods of debt repayment as well as of expansion, employment of large reservoirs of unemployed factors with favorable effects on output—these will keep inflation in check if not entirely exclude it. With high levels of employment, pressure for higher wages is especially to be watched; and if inflation results from deficit spending, the unfavorable effects may be neutralized through appropriate measures. Much will depend upon the availability and effective use of the arsenal of anti-inflation weapons, and much will depend on the authorities' capacity to understand the problems and initiative to act so as to keep the situation in control.

Chapter XI

Debt Burden and Prices

BURDEN, PRODUCTIVITY, AND PRICES

11.1. WEIGHTING THE EFFECTS OF CHANGES IN PRICES AND OUTPUT. With rising prices, the debt burden in goods is reduced; for the government's obligations are fixed in dollars, and each dollar buys less goods. But the problem is more complex than is apparent on the face of this statement. *Rising prices are helpful in reducing the debt burden only insofar as they are accompanied, as they generally are, by rising money incomes and increased tax receipts.* If money incomes rise and tax receipts are unchanged, the burden of debt on the economy is reduced; but the Treasury's fiscal problems are not eased. It is then not so much the rise of prices that reduces debt burden as the increase of money income and tax receipts which generally prevails in periods of rising prices.

In periods of falling prices, the cost of debt in terms of goods rises. It does not follow from this, however, that the burden necessarily rises, for productivity and income may well rise. A dollar collected in taxes to pay interest may command an increasing supply of goods; but an hour of labor may produce more and more goods, with the effect that the burden of a debt (as measured in man-hours of work) is reduced.[1] *As population increases, the man-hours of work may well rise and the burden of debt be reduced, as it is apportioned over an increased number of workers. In periods of falling prices, then, it does not follow that the burden of debt necessarily rises—we see that it is necessary to consider money incomes, the latter dependent, inter alia, on productivity, man-hours of work, as well as prices.*

[1] A basket of goods that previously cost $1, now, let us assume, costs 80 cents: in goods, then, a dollar of taxes deprives the taxpayer not of one basket but of 1¼ baskets—the burden is increased by one-fourth of a basket. If an hour of work produces 2 baskets now instead of 1 as formerly, then the burden of debt in man-hours of work is reduced.

Past: 1 hour of work = 1 basket = $1.00.

Now: 1 hour of work = 2 baskets = $1.60.

Debt burden in terms of man-hours of work = ⅝ as great as in past; for $1 now = 1¼ baskets but only ⅝ of 1 hour of labor.) Further, it is necessary to consider the number of hours of work.

In short, the burden of debt may be measured (1) in terms of goods: with falling prices, the goods burden rises; (2) in terms of labor cost: a rise in productivity may more than offset the adverse effects of falling prices—a dollar of debt may then require a reduced amount of labor (See example in footnote, page 128.) Finally, to measure the burden of debt it is necessary to consider (3) the total number of hours of work. If these rise with an increase of population (offset to some extent by a reduction in the working week), then the debt burden is reduced insofar as it is apportioned over more man-hours of work.

It must be evident that the burden of debt is reduced as both prices and incomes rise, and increased as they both fall. Of course, a ready way of reducing the cost of debt is to encourage a great inflation, but since this is also a form of repudiation, it should not be undertaken for this purpose, nor even given serious consideration.

11.2. OBJECTIVE: RISING INCOMES AND STABLE PRICES. *The best way for us to effect reduction in the future costs of debt is clearly by attaining rising money incomes which reflect gains in productivity and the rise in total man-hours of work.* Prices, it is assumed, should be relatively stable or slightly rising. Over a long period of time, a small annual rise of prices may give the economy a steady lift and may contribute toward a substantial easing of the debt burden. *To take the gains of progress largely in falling prices and stable money incomes would bestow upon the rentier class gains not needed by them and deprive the government—and therefore the country as a whole—of a gain (an easing of the tax burden).*[1]

Under modern conditions of business enterprise, moreover, it is easier to obtain the gains in rising incomes—and, on the whole, more palatable politically—because businessmen do not pass all reduced costs on to the consumer; whereas labor, aware that profits rise as productivity increases, insists, under those conditions, upon higher wage rates. More and more, with increased and improved labor organization, labor will obtain increases adequate to prevent the type of profit inflation that prevailed in the twenties when business was slow to adjust prices to rising productivity and falling unit costs.

[1] In a progressive economic society, whose organization is such as to concentrate the gains of rising incomes disproportionately among well-organized groups, there is a case for moderate reductions in prices. But the increased burden of the debt, with falling prices, militates against this policy, however.

HISTORY OF PRICES IN RELATION TO PUBLIC DEBT

It is of some importance, in view of the relevance of future price and income policies for the debt burden, to summarize briefly the history of prices in relation to our debt and national income.

11.3. PRICES IN AMERICAN HISTORY. Over the last 150 years, prices in the United States in general have fluctuated around the level of those of 1910–1914.[1] The important exceptions are war and early postwar periods, when prices were substantially higher. From 1790 to 1820, periods of war and aftermath of war, prices were substantially above the 1910–1914 level; they were also above it from 1862 to 1877 and 1916 to 1920. In the last quarter of the nineteenth century, prices declined to a level below that of 1910–1914; but after World War I, prices remained at a higher plateau. War and the accompanying inflation and later deflation largely explain the major price movements; but the influence of gold discoveries in the early 1850's and at the turn of the century is not to be minimized. Nor should we fail to observe the major decline in the third quarter of the nineteenth century, a decline associated with scarcity of precious metals and increased output and improvements in transportation, as well as the collapse of the war and postwar (Civil War) boom.[2]

11.4. PRICES AND THE CIVIL WAR DEBT. The major part of the Civil War debt was incurred in 1862–1865, when prices (1910–1914 = 100) averaged around 154. A price index weighted by debt incurred in the years 1859–1866 yields a figure of 152.[3] In 1866, the debt amounted to $2.755 billion; but by 1893, it had been reduced to $961 million, or by about two-thirds.[4] The price level in 1862–1865 was 154; in 1866, it was 174; and the average over the years 1866–1893 was 109. From 1866 to 1893 prices declined by more than one-half. Over the period 1867–1912, the average price level was 119, but the average weighted by amounts of debt repayment was 105. Approximately three-quarters of the debt had been repaid at a price level one-third below that at which it had been contracted.

Failure to maintain prices *contributed* to a serious rise of the debt burden in terms of goods (*cf.* the next paragraph). Had prices remained at the 1866 level, the cost in goods of the debt interest and of repaying two-thirds of the debt outstanding in 1866 would have been

[1] Price comparisons over long periods are of limited significance.

[2] Based on price statistics in G. F. Warren and F. A. Pearson, *Prices*, 6th printing, pp. 10–13, 1933.

[3] Calculated from materials in Warren and Pearson, *op. cit.*; and *Annual Report of the Secretary of the Treasury on the State of the Finances*, p. 410, 1937.

[4] *Ibid.* p. 410.

roughly three-eighths less than it actually was. A comparison of prices in 1866–1893 with the prices of the period when debt was contracted (1862–1865) yields the result that the cost of debt repayment would have been two-sevenths less if prices had been stabilized at the average of 1862–1865 levels.

Despite the decline of prices, however, the burden of the Civil War debt over the period 1866–1893 *was considerably less in goods and even less in man-hours of work than at the end of the Civil War.* The 1893 dollar purchased twice as much in goods as the 1866 dollar; but 3½ times as many units of goods were produced in 1893 as in 1866. Perhaps one-third of the rise in output is to be associated with the gains in population—less if allowance is made for the reduction in the working week.

The relevant statistical material is summarized in Table 9.

TABLE 9.—INCOME, DEBT, POPULATION, PRICES, 1866 AND 1893

Year	Income 1935 dollars (billions of dollars)	Public debt (billions of dollars)	Population (millions)	Prices (1910–1914 = 100)
1866	5.3	2.755	36.5	174
1893	17.3	0.961	67.0	78

SOURCE: Income: N. R. Committee, *The Structure of the American Economy*, Part I, pp. 193, 377, 1939. Public debt: Twentieth Century Fund, *The National Debt and Government Credit*, pp. 83–84, 1937. Population: N. R. Committee, *The Problems of a Changing Population*, p. 21 (interpolated), 1938. Prices: Warren and Pearson, *Prices*, pp. 12–13, 1933. All series are for calendar years, except debt which is for fiscal years.

11.5. PRICES IN WORLD WAR I AND INTERWAR PERIOD IN RELATION TO DEBT. The major part ($22.5 billion) of the debt in World War I was contracted during the fiscal years 1918 and 1919. The average index of prices in these years was 189. An index for the years 1913 to 1919, weighted by amounts of debt incurred, yields a figure of 187. *Here again we have evidence to show that the decline of prices substantially increased the goods burden of the debt and, again, particularly because a substantial part was repaid.* Repayment was achieved at prices substantially lower than those at the time of contraction. An offset was, of course, the reduction of debt charge which followed repayment. Whereas the federal debt on June 30, 1919, amounted to $25.5 billion, by June 30, 1930, it had been reduced to $16.2 billion. Average prices in 1920–1930 were 149, or 21 per cent below the price level of the fiscal years 1918–1919, and almost 40 per cent below the peak price level of 244 in May, 1920. *Had the government been able to prevent the price debacle after*

May, 1920, *the goods cost of debt charges and repayment would have been reduced by two-fifths.*[1] A further reduction of average prices in the thirties of about one-third from the level of the twenties aggravated the situation: The price level in the thirties was little more than half that in fiscal years 1917–1919. And the public debt continued to rise, with the result that by June 30, 1940, the federal debt had attained $47.8 billion. But since prices tended to rise after 1933, the goods burden of the *new peacetime debt* did not actually rise but rather declined.

State and local governments pursued a somewhat different policy from the federal. In the years 1922–1931, for example, they increased their debt from $9.9 billion in 1922 to $19.1 billion in 1931, the debt fluctuating between 18 and 20 billion dollars in the thirties. State and local governments would have fared better had they followed federal policy in the twenties, of reducing their debt.[2]

In the interwar period there were not the important gains of population and income that made possible a large reduction of burden as in the generation following the Civil War (see Tables 9 and 10).

TABLE 10.—INCOME AND POPULATION, 1918–1939

Years	Income (billions of dollars), average for years		Population (millions), average for years
	1935 dollars	Current dollars	
1918–1919	44	60	103
1920–1930	56	69	115
1931–1939	56	58	127

SOURCE: N.R. committee, *op. cit.*, and *Statistical Abstract of the U. S*

We may conclude that our experience with World War I *debt was not so fortunate as with Civil War Debt. A large proportion of the debt of World War* I *was repaid at prices substantially lower than prices had been at time of borrowing. And the two-thirds of World War* I *debt still to be paid off were being financed in the thirties at a price level little more than one-half that in the fiscal years* 1917–1919. In the twenties, at least, the gain of income was more than adequate to offset the fall of prices, *i.e.*, the burden in terms

[1] *Cf.* E. F. M. Durbin, *How to Pay for the War*, pp. 47, 62–63, 1939. The author emphasizes the need of rising money incomes as a means of reducing debt burden. Had money incomes not risen in World War I, British debt charges as a percentage of national income would have risen from 1 per cent up to 10 per cent instead of, as they actually rose, from 1 per cent up to 6 per cent.

[2] Tax Foundation, *Facts and Figures on Government Finance*, p. 116, 1944.

of man-hours of work had undoubtedly not increased. In the thirties, it was another matter. Falling prices, and incomes roughly at the level of the twenties, meant a rise in the goods burden of debt but no gains in the output of goods; therefore, relative to *total output* of goods, the debt was an increased burden. There may well have been a reduction in the burden *per man-hour* of work, for there were significant gains in productivity, but unfortunately this was offset by increased unemployment.[1]

11.6. CONCLUSION. We can draw some important conclusions from the history of debt, prices, and national income of the last 150 years. Above all, it is important to avoid the mistakes of debt management in the Civil War and World War I periods. *We now have the weapons with which to forge a satisfactory price policy—and that policy should not be one of deflation.* In the period during and after the Civil War, the gains in productivity, population, and income were so large that the burden of the public debt continued to decline despite large downward movements in prices. In the period after World War I, however, there was a large reduction of prices, while population rose only moderately. We cannot claim that the burden was substantially eased as a result of interwar movements in prices, productivity, and income. On the contrary, the burden undoubtedly increased in the thirties.

Most of our World War II debt was contracted during a period when prices varied less than 10 per cent. For this reason, we might *perhaps* expect neither the large rise nor the marked decline in prices experienced after other wars. *Since we shall not be favored by as large a gain in population as in the past, we should be doubly concerned over our price policies.* Falling prices will increase the burden of debt not only because the goods value of a dollar obligation rises, but also because, even in periods of economic progress, output and hence income respond better to a policy of stable prices and increased incomes than to that of falling prices and stable incomes.

Early in 1947, the consumers' price index was up 20 per cent over prices at the end of World War II, with the result that the goods value of the public debt was reduced by one-sixth, or about $45 billion. Here at least was one offset to the losses inflicted on the economy by the postwar inflation.

[1] The problems raised by the World War II debt and prices in and beyond the forties are to be discussed in later chapters.

Perhaps most *rentiers* in 1947 were not expecting falling prices, but they would be wise to count—and if they are good historians they will be disposed to do so—on falling prices *in the long run.* Indeed, it may be argued that the market anticipated rising prices and, therefore, obtained some compensation in higher interest rates. *The gains of progress should go not to those who receive interest on the basis of past commitments: they receive in goods the equivalent to what they have given up plus interest. Rather the gains should go to the workers, the managers, and the investors—to those, in short, who determine current output, not past output.* With a large and rising debt, this is even more important than in the past. We recommend, then, slightly rising prices in a period of rising debt, or at worst stable prices, and that any policy of deflation in that period be avoided.

Chapter XII

The Interest Rate on the Public Debt

THE CONTENTS

Having discussed the burden of debt in relation to prices and incomes, we now turn to another aspect of the debt burden—the rate of interest. This problem is closely related to the monetary and inflationary problem.

Despite unprecedented new issues, the rate of interest has declined. What is the explanation? Monetary expansion; restrictions on demand for capital resulting from governmental measures; rates tailored to demand of various markets; control of prices—these are the most important factors. In addition, the composition of the public debt has changed. In the unusual liquid money market, the Treasury has been able to push short-term securities which are salable at low yields. Rates on identical or on closely similar securities have not fallen significantly. It remains to be seen whether the low rates of 1945–1947 can be continued for many years.[1]

Finally, there is a striking contrast between the prewar and war methods of financing. Before the war, the main and almost exclusive means of selling government securities was through monetary expansion, *i.e.*, sales of securities to banks, which in turn were made possible by the unprecedented inflow of gold. From June, 1940, to August, 1945, the expansion of new issues was several times that of deposits; and, though deposits were up by about 125 per cent, the monetary gold stock in 1945 was roughly equal to that held in 1940. Reliance was had to a substantial degree on sales to savers—associated with the vast rise of output and income and the unavailability of goods of high quality and at low prices.

[1] *Cf.* Chs. XXII, XXIII.

THE DECLINE IN THE RATE

12.1. SIGNIFICANCE OF A LOW RATE. Unanticipated by most observers, *the rate of interest on the public debt has steadily declined even as the amount outstanding has continued to increase. Ceteris paribus*, a rise in the supply of potatoes—again using as an example our favorite vegetable—brings a fall in prices, and similarly with government securities. But the catch is that all other things never do remain equal. Expansion of supplies of securities was accompanied by an induced rise of demand.

The importance of the rate of interest for our study of the debt is evident. At a 2 per cent rate, a public debt of $300 billion will cost $6 billion annually, or about 20 per cent of a postwar federal budget of $30 billion; at a rate of 4 per cent, the World War I rate, the cost would be $12 billion annually, or two-fifths of the $30 billion budget. (Obviously the budget would not then be kept down to $30 billion.)

12.2. DEPOSIT EXPANSION AND RATES: PREWAR AND WAR. A comparison of the difference in prewar and war financing is interesting, for the degree of recourse to banks helps determine rates. *In the prewar period, the reader should note, the expansion of debt was equal to the rise of deposits and not much more than the expansion of gold.* Deposit expansion in the prewar period was indeed sluggish in view of the large inflow of gold and the rise of debt. Somehow, the government was not having too much success in creating money. Rates declined, nevertheless, and in no small part because of the small demands made by private enterprise upon existing supplies of money and capital. During the war, the rise of deposits was large, but not nearly so large as the expansion of debt.

The prewar experience of declining rates *seemed* to continue into the war period. From 1933 to 1940, the expansion was as indicated in Table 11.

TABLE 11.—FINANCIAL DATA, 1933–1940

	1933	1940	Net change
Gross federal debt (billions of dollars)	22.5	43.0	+20.5
Monetary gold stock (billions of dollars)	4.1	19.6	+15.5
All bank deposits, adjusted (billions of dollars)	38.5	59.0	+20.5
U. S. Treasury bond yield (per cent)	3.3	2.4	−0.9

SOURCE: Seymour E. Harris, *Economics of Social Security*, p. 21, 1941.

Pertinent data for the defense and war period—June, 1940, to August, 1945—are indicated in Table 12.

TABLE 12.—FINANCIAL DATA, JUNE 30, 1940, TO JUNE 30, 1945

	June 30, 1940	June 30, 1945	+ or −
Gross federal debt (billions of dollars)	42.4	256.4	+214.0
Monetary gold stock (billions of dollars)	22.0	20.2	− 1.8
All bank deposits, adjusted (billions of dollars)	60.3	137.7	+77.4
Computed rate of interest (per cent)	2.5	1.9	−0.6

SOURCES: *Treas. Bull.*, February, 1936, pp. 23, 27; *F.R.B.*, December, 1945, pp. 1216 ff.

In the period as of Table 12, the expansion in debt was 2¾ times as large as that in deposits; and the latter expanded by about 125 per cent, although there was a decline in the monetary gold. Whereas the rate of interest on Treasury bonds in the prewar period declined by about 30 per cent in the face of a rise in debt of but $20 billion, the rate of interest declined further in the war period by almost 25 per cent in the face of an expansion of debt of five times. *It is clear that during the war deposits expanded despite the stability of gold supplies. They would have expanded more had not government securities, unlike the experience of the thirties, been disposed of largely to the public.* It is no surprise, then, that the commercial banks held almost one-half of the federal debt on June 30, 1938, and but one-third at the end of the war (exclusive of the 8 per cent held by Federal Reserve banks).

12.3. INCOME, SAVINGS AND DEMAND FOR PUBLIC SECURITIES. Now let us turn the spotlight on income. In the war period, national income rose in a spectacular manner—from $78 billion in 1940 to 161 billion in 1944 ($159 billion in 1945) and a peak of $165 billion (annual rate) in the summer of 1945. It is this large rise of income which in no small part explains the satisfactory market for public securities. With incomes up 107 per cent, with private savings up from about $6 billion annually in the thirties to $40 billion in 1944, the demand for government securities expanded.[1] By the end of the war, total wartime savings of individuals were around $140 billion, a large part of which had been invested in government securities.[2] *The large sales of government securities resulted not only from the growth of incomes, but also from the stabilization of commodity prices through controls and the unavailability of goods in desired amounts and qualities.* With prices controlled and supplies ra-

[1] Seymour E. Harris, *Inflation and the American Economy*, p. 21, 1945.

[2] *Ibid.*, p. 375.

tioned, the excess of incomes over available goods grows. The result —a further rise of savings.

Of course, all savings are not invested in federal securities; in part, they are held in cash. In fact, as noted in an earlier chapter, only about two-thirds of savings were invested directly or indirectly in public securities. Since at the peak of the war the country experienced private *net* disinvestment and *gross* private investment of but $2 billion, (annual rate) it must be clear that the public preferred increased hoards to further investments in public securities.

Why does the public prefer to hoard cash? This tendency to hoard (apart from the fact that people with higher incomes require more cash) reflects at least to some extent doubts concerning federal securities. Many fear a rise in the rate of interest, *i.e.*, a fall in the price of federal issues. In view of probable movements in security prices, the public does not stand to gain from its preference for cash. By holding excessive amounts of cash, they lose, we may presume, at least 2 per cent per year (compounded); and it is not likely that over the next 5 to 10 years government securities, given official control over money and markets, would fall at this rate or one approximating it.

In fact, all signs indicate that the government has every intention to keep the interest rate down; and once the market becomes convinced of the government's intentions and ability to do so, this will mean a long step toward the achievement of stable rates. In this connection, the great interest shown by banks from 1933 to 1944 in short-term securities also reflects (aside from government control over bank investments) an unaccountable lack of confidence in the government's ability to maintain rates. In view of the fairly steady decline in interest rates, this continued speculation on a rise of rates, *i.e.*, a decline in prices of securities, has been extremely costly to the banks.

Relative to nonbanking investment experience, the history of liquid assets is of some significance. Over a period of 6 years (ending Dec. 31, 1945) personal and business holdings of liquid assets (*i.e.*, cash, deposits, United States government securities) increased from 65 billion dollars to 225 billion dollars. Of this increase of $160 billion, only $78½ billion were invested in government securities—nearly $82 billion, or more than one-half were put into cash and deposits.[1] Rises in liquid assets, it should be observed, reflect not only the growth of

[1] *F.R.B.*, February, 1946, p 123. Cf *Treas. Bull.*, April, 1946, pp. A-11 to A-15, where the rise, inclusive of institutional holdings, is put at $215 billion.

savings, but also—with plant, machinery, and inventories not available—conversion of illiquid assets into liquid assets. For this reason, the growth of liquid assets should exceed that of savings. A partial offset, however, is that savings to some extent are put into illiquid assets.

HAS THE RATE ON GOVERNMENT ISSUES FALLEN BY ONE-THIRD?

12.4. ALLOWANCE FOR CHANGING COMPOSITION OF THE DEBT. The record of declining rates occurred despite the rising proportion of taxable issues—purchasers are prepared to pay a higher price for tax-exempt issues. Thus, early in 1946 partly tax-exempt Treasury bonds yielded a maximum of 1.4 per cent, whereas taxable Treasury bonds yielded a maximum of 2.2 per cent. Of $200 billion of public marketable interest-bearing securities, only $20 billion were partially tax-exempt early in 1946, and only $179 million totally tax-exempt.[1] Thus the rate of interest declined despite the fact that tax-exempt securities had not been issued since 1941. Had the proportion of tax-exempt issues been equal to that of 10 years earlier, the average rate would have been substantially lower, and especially so since with the rise of taxation the advantage of holding tax-exempt as against non-tax-exempt issues rose greatly. On this score, then, we might conclude that the rate of interest declined even more than has so far been indicated; for with the reduced relative importance of tax-exempt securities, rates are now higher than they would otherwise have been.

An examination of Chart 8 reveals that rates on tax exempts are lower than rates on taxable issues. This chart also indicates that rates in general vary in direct relation with period to maturity and that the highest yield bonds are not made available to banks by the Treasury.

If, then, the gradual disappearance of low-yielding tax-exempt securities accounts for a relative rise of rates which is spurious, the failure to take account of the change in the distribution of securities according to maturities may give a misleading impression of the true reduction. *What matters for this analysis is the price or yield of an identical issue.* We have already noted that short-term issues are relatively more important than they were before World War II.

Charts 9 and 10 throw some light on the movement of rates on identical or similar issues. It will be noted that on balance from 1942 to 1945 rates on short-term issues rose, and that only in the latter part of the war (Chart 9) did rates on longer term issues tend to fall. Chart

[1] *Treas. Bull.*, May, 1946, p. 51.

9 is on the whole the more significant, because the issues compared are more nearly homogeneous. Chart 10, on the other hand, includes a large number of issues in the curves covering bonds and notes and, therefore, does not measure the price of a relatively homogeneous

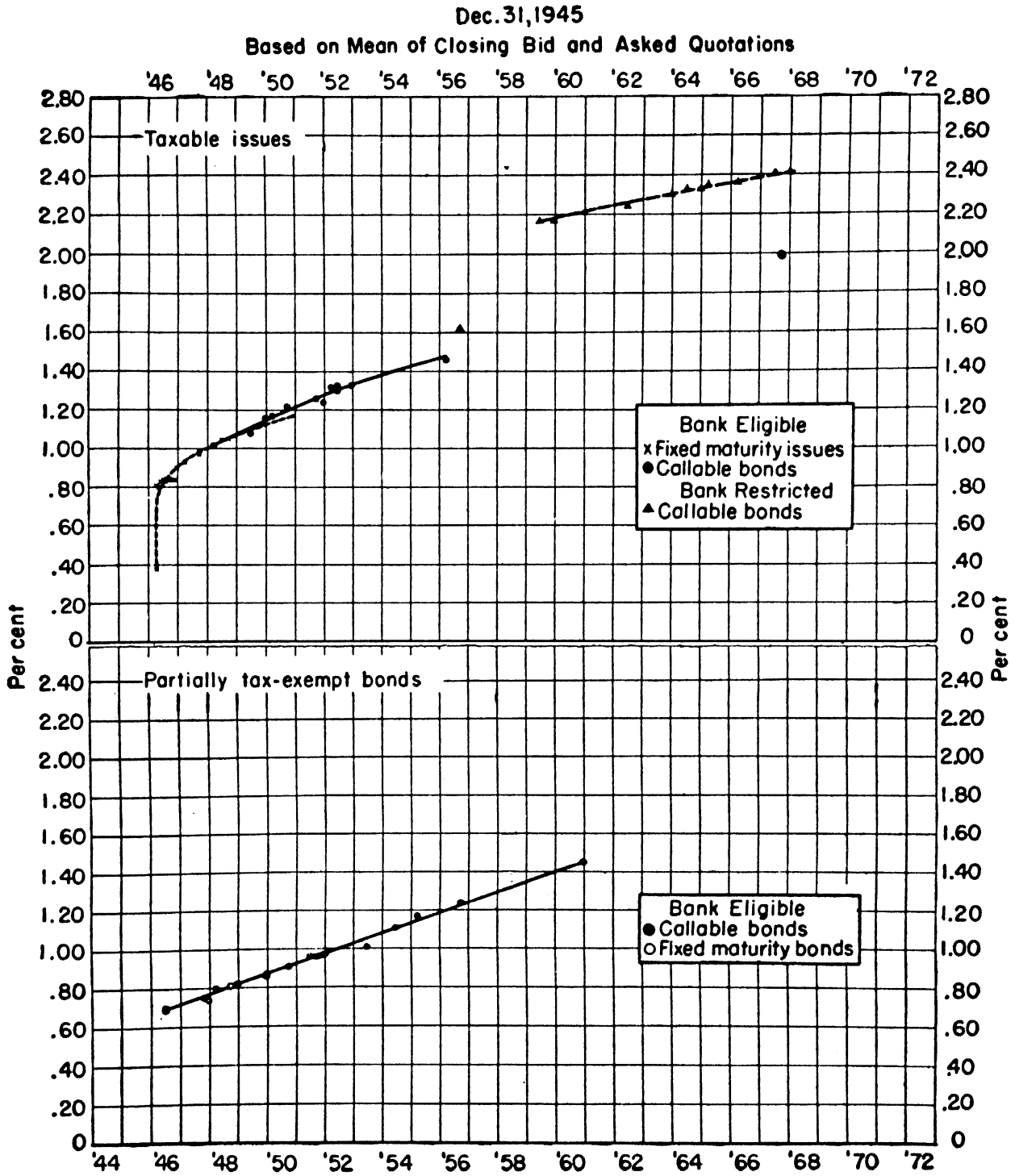


CHART 8.—Yields of Treasury securities. (*Source: U. S. Treasury Bulletin.*)

security. The difference in results (*e.g.*, the decline in bond yields begins late in 1944 according to one chart and continues throughout the war according to the other) is explained by this fact.

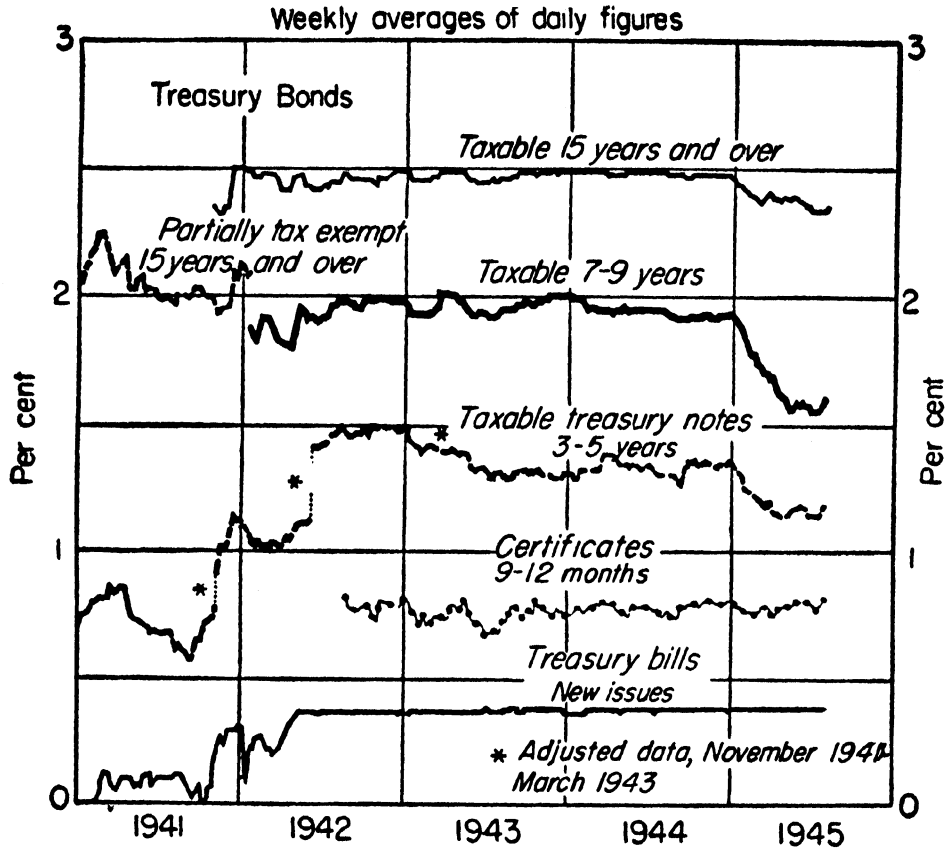


CHART 9.—Yields on United States securities. (*Source: Federal Reserve Bulletin.*)

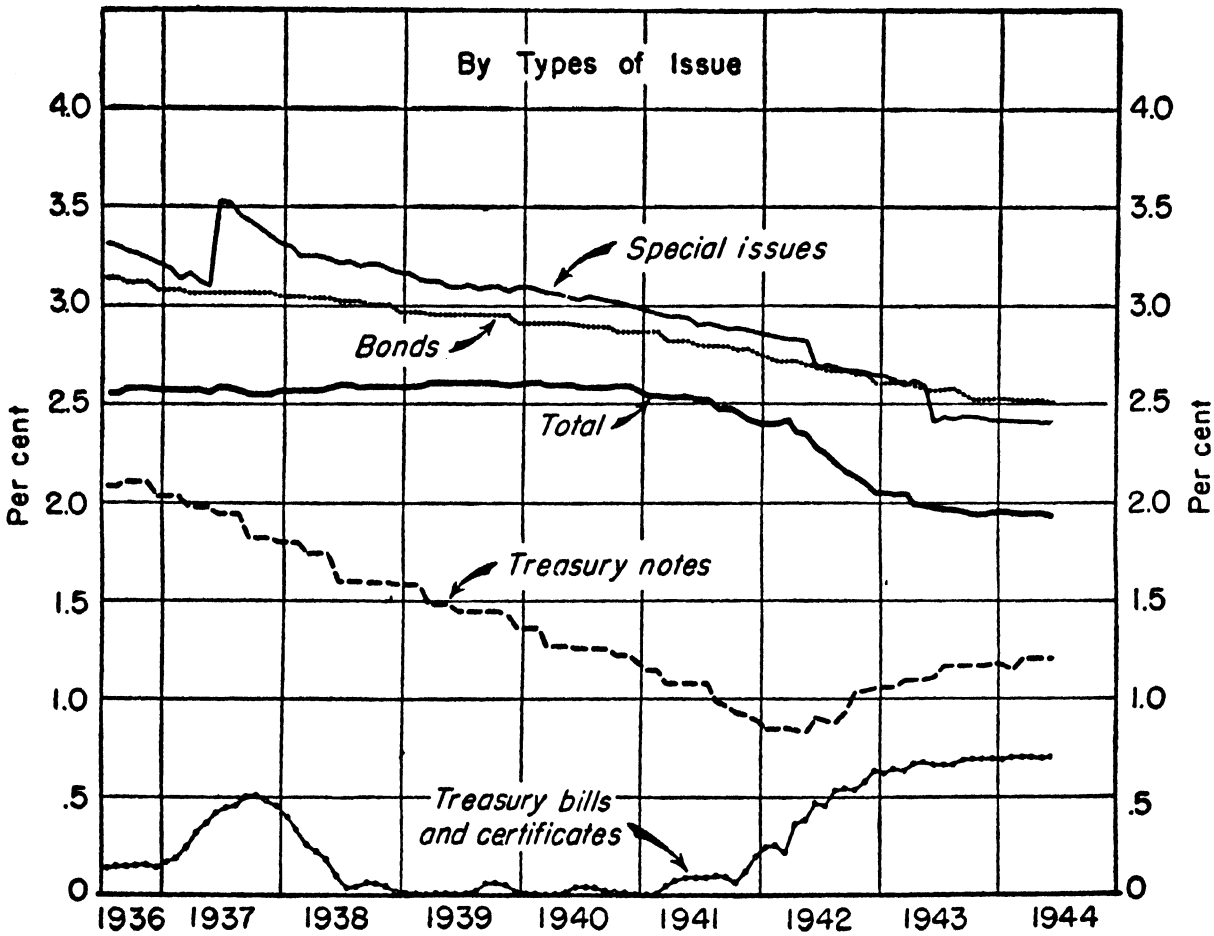


CHART 10.—Computed annual interest rates on the public debt. (*Source: Report of the Secretary of the Treasury for* 1944.)

12.5. AN APPRAISAL OF LOW RATES: IMPORTANCE OF SHORT-TERM ISSUES AND LIQUIDITY. A few points should be emphasized here: *Short-term issues have gained in importance since the beginning of the war, and, therefore, as is to be expected, even at unchanged rates for each type of security the average rate on all securities will decline as the short-term issues become relatively more important.* In fact, rates for short-term securities rose during the war, yet since these are relatively low-rate securities, their increased importance tended to depress the average rate. An accurate measure of rate changes would be given by an examination of historical rates for an index of securities of unchanged composition. This index, to be sure, would measure the price of a composite security—of theoretical and historical interest only. What matters to the Treasury is the rate actually paid.

TABLE 13.—YIELDS OF TREASURY SECURITIES
(Annual averages, per cent)

Year	Treasury bills*	9–12 month certificates	3–5 year taxable notes	3–5 year tax-exempt notes	Partially tax-exempt bonds†	Taxable bonds†
1934	0.256	....	....	2.12	3.12	
1935	0.137	....	....	1.29	2.79	
1936	0.143	....	....	1.11	2.68	
1937	0.447	....	....	1.40	2.74	
1938	0.053	....	....	0.83	2.61	
1939	0.023	....	....	0.59	2.41	
1940	0.014	....	....	0.50	2.26	
1941	0.103	....	0.73	0.46	2.05	
1942	0.326	....	1.46	....	2.09	2.46
1943	0.373	0.75	1.34	....	1.98	2.47
1944	0.375	0.79	1.33	....	1.92	2.48

* Includes both 3-month and 6-month bills in 1934, 6-month and 9-month bills in 1935, 9-month bills only in 1936, 3-month to 9-month bills in 1937, and 3-month bills thereafter. Prior to March, 1941, interest on Treasury bills was wholly tax-exempt; since then it has been taxable.

† Bonds with 15 years or more to run to earliest call date since Nov. 30, 1935; bonds with 12 years or more to earliest call date before that.

SOURCE: Letter of Under Secretary Bell to writer, Oct. 9, 1945.

And why is the rate low? The rate paid is low in part because the banks and the public are prepared to absorb relatively large quantities of short-term issues, because government agencies and trust funds (*e.g.*, national life insurance, unemployment reserve) have large resources to invest in these issues, and in general because of the excessive liquidity—in no small part the by-product of the government's

monetary policy. The rate would be lower, moreover, but for the gradual disappearance of tax-exempt issues. *On balance, the conclusion is that the rates for securities (e.g., for a basket of securities of* 1938–1940 *com-*

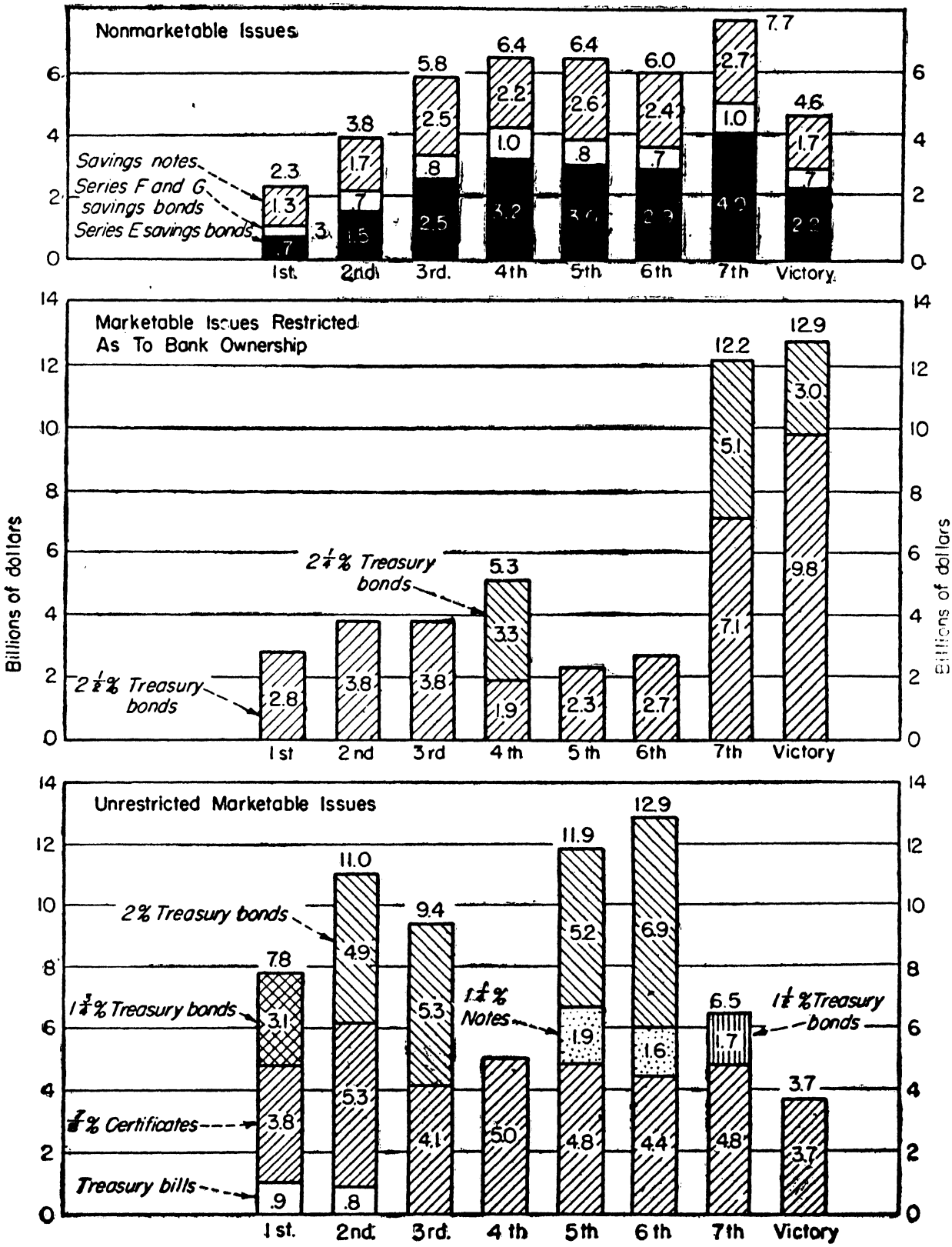


CHART 11.—Sales in eight loan campaigns by issues. (*Source: U. S. Treasury Bulletin.*)

position) have not fallen so much as the rate for the changing portfolio of securities outstanding. On this matter, Table 13 is of some interest.

Table 13 plainly reveals the need of measuring the return on identical issues, and although the issues in this table are not exactly identical, they may, for practical purposes, be considered so.[1] The reader will observe that during the war the rate on Treasury bills rose substantially and that the yield on 3 to 5 year taxable notes also rose. On the other hand, yields on tax-exempt notes and tax-exempt bonds declined—this may be explained, however, by the increased value of the

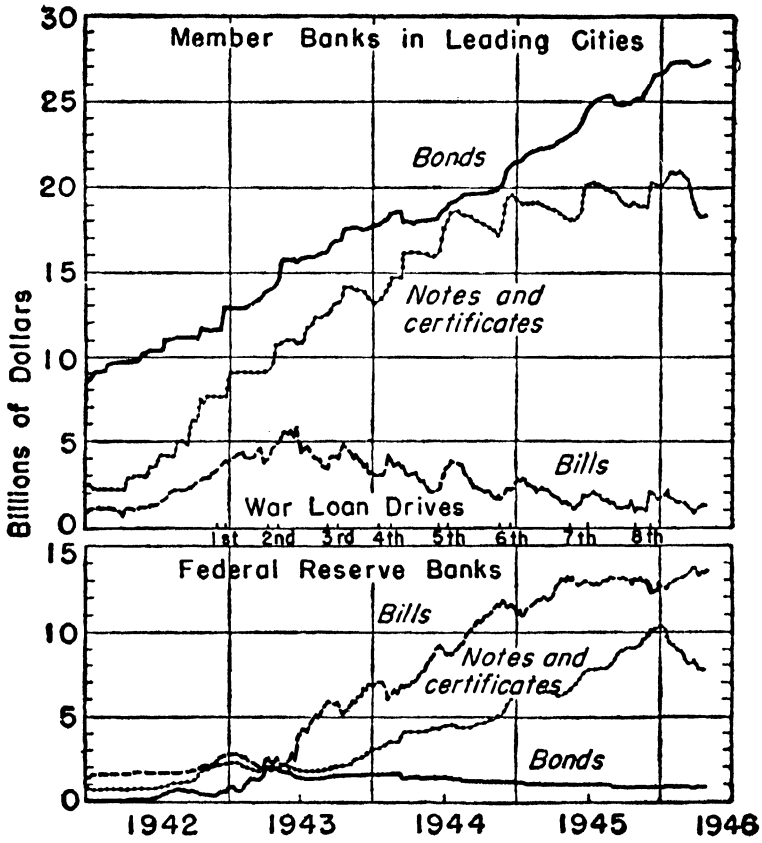


CHART 12.—Holdings of United States Government securities by member and reserve banks by kinds. (*Source: Federal Reserve Bulletin.*)

tax-exemption feature as tax rates rise. *In general, the yield on identical or close to identical issues does not go down so much as the average computed rate*—the latter declined from 2.534 per cent at end of fiscal year 1939 to 1.978 at the end of March, 1946[2]; the explanation in large part is the changing composition of the debt.

Rates were kept down, it should be observed, in part by a policy of monopsonistic discrimination. Each segment of the market was paid what was required to elicit the necessary funds. Small savers were paid the highest interest and large private savers, corporations, and

[1] *Cf.* footnotes to table.

[2] *Treas. Bull.*, May, 1946, p. 27. *Cf.*, however, *F.R.B.*, October, 1945, p. 1041, which shows a fall in the yield on the 7–9 years United States government taxable bonds from 1.93 per cent in 1942 to 1.56 per cent in September, 1945.

banks lower rates, in that order. Rate discrimination was determined not only according to the incentive required to command the necessary funds of each group, but also by the objective of keeping inflation down to a minimum. The Treasury increasingly restricted issues that might be purchased by the banks. In the Second War Loan the banks,

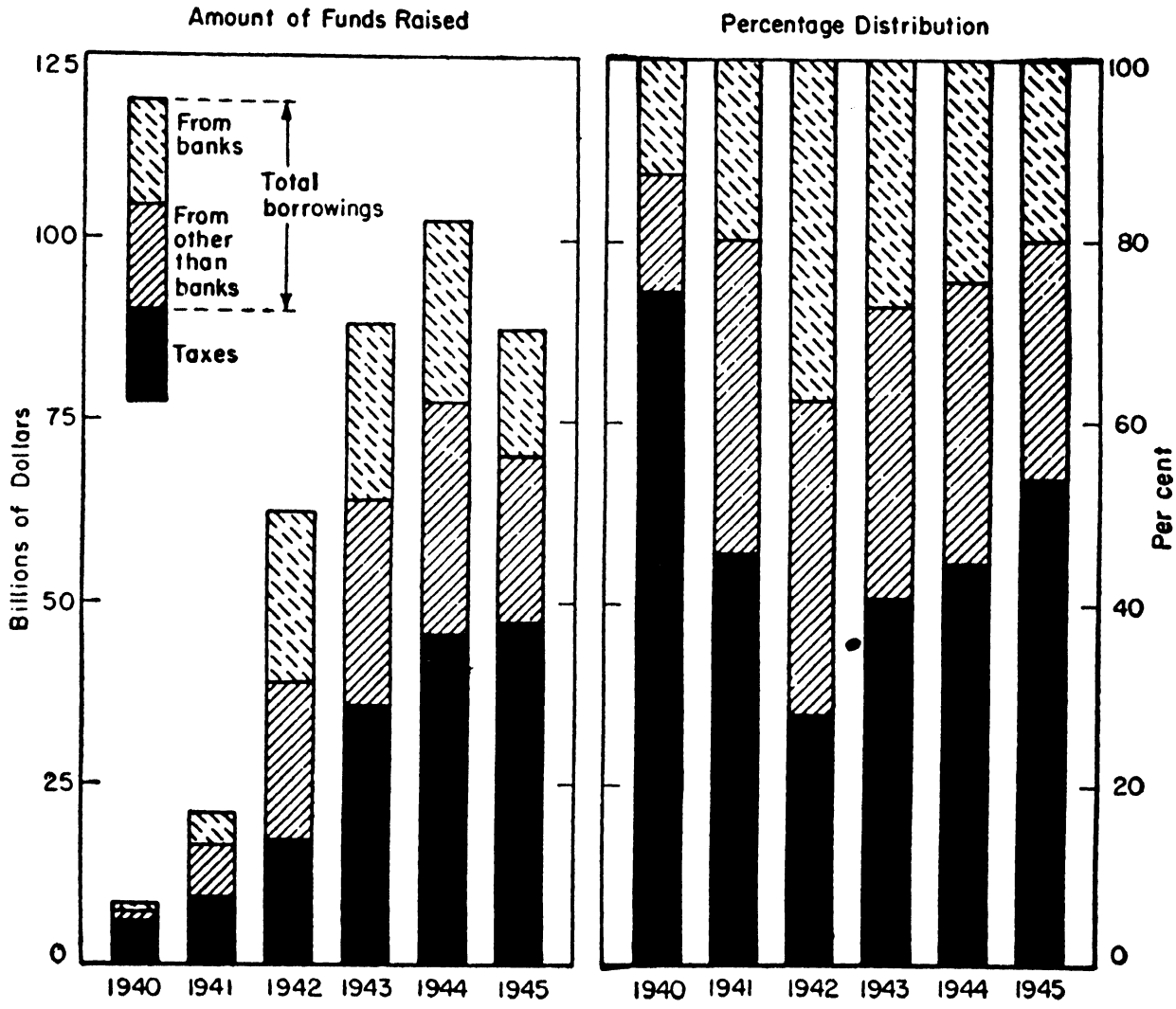


CHART 13.—Sources of Treasury funds, by calendar years. (*Source: Survey of Current Business.*)

for example, were allowed to buy Treasury bills, 7/8 per cent certificates, and 2 per cent Treasury bonds. During the entire war period, $102 billion of government issues, or 47 per cent, of the amount issued, were eligible for purchase by commercial banks; in November and December 1945 (Victory Loan) the corresponding figures were but 2.1 billion, or 12.7 per cent of the amount issued.[1] In the last (Victory) loan, banks were allowed to buy only certificates. Chart 11 reveals what issues were restricted as to bank ownership. Furthermore,

[1] House Banking and Currency Hearings, *Extension of the Emergency Price Control Act*, etc., p. 1582, 1946.

strong efforts were made to discourage banks from taking over issues from the public prior to public sales or soon after a large war loan was floated. Despite the policy of selling maximum amounts to noninflationary borrowers at favorable rates, increased amounts found their way into the banks.[1] This is evident from Chart 12. In fact, they were allowed to borrow from reserve banks at rates below yields. Yet, as is evident in Chart 13, the amounts and the proportion of Treasury funds raised by bank loans declined in 1944 and 1945.

I have argued so far on the assumption that short-term issues are a larger part of the public debt than they were before the war. It is necessary, however, as is suggested by an examination of Table 13, to break down the analysis further, as seen in Table 14.

TABLE 14.—PERCENTAGE OF TOTAL TREASURY ISSUES OUTSTANDING

	1935	December, 1945
Nonmarketable bonds, medium maturities, 10–12 years—redeemable shortly after issue	0.02	18
Treasury notes, 1–3 years	35	11
Treasury bills and certificates of indebtedness, 1 year or less	7	21

SOURCE: Calculated from *Treas. Bull.*, May, 1945, p. 22, and March, 1946, p. 22.

In general, the conclusion to be drawn from Table 14 is that the very short-term issues are of greater importance than they were 10 years ago; Treasury notes running one to three years were of less relative importance in 1945 than in 1938; and bonds of medium maturities (nonmarketable) were of increased significance. We should emphasize the fact that, when a 90-day issue is floated, it pays $^{38}/_{100}$ of 1 per cent; but the low rate is paid for 90 days only. The test of what the war issues will cost will depend then upon rates at which the short-term issues are replaced. If the Treasury can continue to command proportionally large sums at rates of 1 per cent or less for the next 20 years or more, then the war will have been financed at the low rates indicated by the computed rate of interest. We shall have to wait to see. If rates on securities replacing these issues rise to 2 or 3 per cent-then the low computed rates of today are of reduced significance, Should the banks accept short-term issues in place of issues of long-term maturity, the rates will tend to decline further.

[1] *Treas. Bull.*, February, 1946, p A-10; *F.R.B.*, April, 1945, p. 300, and August, 1945, pp. 725–727.

RATES AND TAXES

12.6. A CORRECTION OF GROSS YIELD FOR TAXES. Some would hold that the yield on securities is much lower than is apparent because current taxes are so high, or that in view of the large rise in taxes, the yield has been reduced even more than has so far been indicated. Direct federal (income and excess-profits) taxes were up about seventeen times from the beginning to the end of the war. The Treasury paid out almost 2 per cent on issues but collected in taxes a substantial part of the gross yield. Hence, it may be held that World War II was a 1 or better a 1½ per cent war. We may consider the gross yield 2 per cent and the net yield around 1½ per cent. Or we may consider the yield 2 per cent and may consider the taxes as investors' contributions to the financing of the war program.

RATES AND CONTROLS

12.7. CONTROLS OF PRICES KEEP RATES DOWN. A large part of the explanation of reduced rates has already been stated or adumbrated: expansion of money, exclusion of rival demands, tailoring of issues to market demands, increased importance of short-term and low-yield issues, provision of additional demand through channeling of savings via government agencies.

Finally, we come to controls—the all-important, although not sole, check to rise of commodity prices. Controls indirectly affect interest rates. Let us see how. *In order to keep interest rates down, it was important to manufacture much additional money; but it was also important that the money used to buy the securities should be deactivated from use in commodity markets and in nongovernment-asset markets in general,* and that is where controls entered the picture. For if commodity prices had risen greatly, obviously it would have been much more difficult to keep rates down: More funds would have been required to achieve a given result on the war fronts; and the attractiveness of commodities and non-fixed yield assets would have outpaced Treasury issues in purchase appeal. Rising commodity prices would sooner or later have increased the appeal of property, common stocks, and commodities against fixed interest-bearing securities.

12.8. CONCLUSION. To most observers, the fall of rates during this costliest of all wars was unexpected. High incomes and unprecedented savings, both in turn associated with expanding monetary supplies and rising output, contributed toward low rates. Moreover, in expanding

monetary supplies, the banks directly widened the market for government securities. Treasury success might, however, be exaggerated if allowance is not made for the changed distribution of government securities. Prices of an unchanging basket of securities did not rise so much as the prices of a basket of changing composition actually held. Short-term issues were of increasing importance, and these are low-yielding securities. Other factors, which should not be left out of account, were the segmentation of the market, the contribution of controls in keeping commodity prices down, and the growing market offered by the government agencies, and in particular the Federal Reserve banks.

Part V

DEBT BURDEN AND DEBT POTENTIAL

INTRODUCTION

In Part IV we investigated the monetary aspects of the public debt. We emphasized the relation of monetary supplies and public debt, the threat to price stability of a rising public debt, and the manner of removing this danger. We discussed price history and its significance for the public debt. Finally, we analyzed the decline in the rate of interest on government securities—a decline associated in no small part with expanding supplies of money.

The problem for investigation in Part V is the burden of the public debt and the debt potential. Here it is important to assess the debt in relation to national income, wealth, and charges, other than debt, on the taxpayers; and to examine the distribution of tax burdens as well as ownership of government securities.

In 1836, the federal debt of the United States was at the record low figure of $38,000. At that time, the most perplexing problem was the use to which surpluses were to be put. *A century later (fiscal year* 1937) *the debt had risen to* $37.2 *billion, an increase of close to one million times over a period of about one hundred years.* The peak of the debt in the nineteenth century, after the Civil War, was less than $3 billion. Following World War I, it rose to 24.3 billion and then fell to $16 billion in 1929. In the 10 years following 1936, it rose by $235 billion, or roughly seven times. (On June 30, 1946, the debt was $269 billion.) The rise from fiscal year 1941 to fiscal year 1946 accounted for 94 per cent of the increase in the years 1936 to 1946—the rise in the last decade was at the *annual* rate of approximately 64 times that of the preceding hundred years, when the debt had already grown by a million times.[1]

In the light of this spectacular rise in public debt, it is not surprising that the question is repeatedly asked: What size public debt can this country carry? Few would have predicted or even suspected in

[1] Debt figures to 1936 from The Twentieth Century Fund, *The National Debt and Government Credit*, Ch. 3, 1937; *Treas. Bull.*, December, 1945, p. 22; *Message of the President on the State of the Union and Transmitting the Budget for* 1947, p. A-3.

1836 that, with a rise of the public debt of nearly one million times in the next hundred years, the country would have grown and prospered as it has. And if any one in 1936 had suggested that by 1946 our national debt would be in the neighborhood of $300 billion, and would reach that figure without signs of a disastrous national inflation or bankruptcy of the government, he would undoubtedly have been labeled a "crackpot."

Who can say that we have reached the limit of federal debt? Who can anticipate what additional burdens may be put upon the federal government in the next 25 or 50 years? Government deficits will not suddenly end now that the war is ended. In his budget address for fiscal year 1947, President Truman anticipated a rise in the public debt of $16 billion in fiscal year 1946 and a decline of $4 billion in 1947. In achieving these results, however, the government proposed to use up $21 billion of its cash. As long as high incomes and employment are maintained, the improvements of 1946 and 1947 should be continued—and in the absence of a serious business decline, the budget should be (and is) in *real* balance by 1947 or 1948.

Actually, in his budget message for 1948, President Truman announced a balanced budget for 1948. If Congress succeeds in cutting expenditures more than taxes, the debt will be reduced in the fiscal year 1948. President Truman revealed also that in 1946 and 1947 the excess of expenditures over receipts was estimated at 20.7 and 2.3 billion dollars, respectively; the reduction of Treasury cash 10.7 and 11.7 billion, respectively; the rise of debt 10.7 billion in 1946, and the decline in 1947, 9.0 billion.[1]

It is, therefore, appropriate and necessary for economists to consider the debt potential—not that they can say whether the limit is to be $785 billion or $7,850 billion. To none—not even economists—is given the far sight to view the future. Doctors, too, cannot view the future of the patient with certainty—there are too many variables. Yet the doctor can (and should) prescribe penicillin, for example, without knowing the exact amount that will cure the patient's infection. He can, however, be sure that the amount will depend upon the degree of infection, the length of the period in which the patient takes the drug, his sensitization and the condition of his blood and organs, his age and general condition, and so on. Considering these variables,

[1] *The Budget*, 1948, p. A-8. Actually there was a small surplus in 1947.

the doctor will prescribe the appropriate amount and frequency. Similarly, the economist might envisage no dangers in a debt that grows at the rate of *n* dollars per year under certain assumptions as to rate of interest, prices, the distribution of the tax burden, the level of income, the purposes for which the money is spent, the repercussions of the expenditures, etc. But under other assumptions, a rise of debt of $n/4$ per year may bring inflation, bankruptcy, and repudiation.

In directing attention to the relevant variables, the economist adds much to the understanding of the problem. *In his findings, let us say, of the broad limits of the public debt in the year of* 1980 *on the basis of various assumptions, he is neither approving, nor declaring that the country can bear, a debt of* n *dollars today or even in* 1980, *except under his assumptions; and above all, he is not angling for a current debt of these proportions any more than the physician who recommends the use of penicillin in a specific instance is recommending penicillin for all and at all times, irrespective of need and consequence.* An infection is discovered, the physician suggests penicillin. Similarly, a disease of the body politic is revealed: unemployment and wastage of economic resources; the economist may recommend government borrowing and spending as the cure. He does so because in his view no other curative will stop the disease and because the disease is more costly than the cure.[1]

[1] *Cf.* Seymour E. Harris, editor, *Postwar Economic Problems*, 1943, Ch. X, in which my discussion of debt potential was first published; also see Chs. II and III of this volume.

Chapter XIII

Is the Public Debt a Burden?

THE NEGATIVE SIDE: DEBT IS NOT A BURDEN

13.1. TRANSFER ASPECTS. Frequently the position is taken that public debt is not a burden: what the debt costs the taxpayers comes back to the *rentiers*. Since both groups are members of the community (assuming a domestically owned debt), it is held that this results in no cost to the nation. To a considerable degree, in fact, the taxes paid and interest received may roughly balance for each individual. George Smith receives $1,000 interest on his bonds, and he may pay approximately $1,000 of taxes.

Although the mention of a large public debt alarms many economists, others consider it a modern economic weapon that on balance results in good. Dr. Lerner, for example, sees no danger, no matter how many zeros are added to the public debt.[1] If the public is willing to lend, according to him, the government spends deposits transferred by the public. If they are reluctant to lend and continue to hoard, then the government can issue greenbacks, thereby saving the interest. What is more, in Dr. Lerner's view, the debt is not at all a burden because taxes are not generally required to finance it—taxes are proposed only when inflation threatens. Even if the interest on a public debt of $10 trillion ($10,000 billion) is $300 billion, the remainder of income (*i.e.*, goods produced at full employment) is $150 billion, and taxes of $300 billion are levied to cover interest charges—Dr. Lerner says payments to cover interest charges are no burden. The public, he points out, still has $150 billion to purchase the $150 billion of goods produced.[2]

In a later publication, Dr. Lerner writes:

[1] A. P. Lerner, "Functional Finance and the Federal Debt," *Social Research*, 1943, p. 42. *Cf.* Oxford University Institute of Statistics, *The Economics of Full Employment*, p. 44, 1944. Lerner adds, however, that as a result of the application of Functional Finance, there is an automatic tendency for the budget to be balanced.

[2] Lerner, *op. cit.*, pp. 39, 47.

> . . . the size of the national debt (when held by citizens of the country) is a matter of almost no significance beside the importance of maintaining full employment. The national debt is not a burden on posterity because if posterity pays the debt it will be paying it to the same posterity that will be alive at the time when the payment is made. . . . Just as increasing the national debt does not make any nation poorer, so repaying the national debt does not make the nation richer. It is not true that the national debt "must be repaid sometime" any more than it is true that all the banks must call in all their debts and repay their depositors. . . . [1]

Other economists hold that the burden of debt payments is to be discounted because transfer payments do not involve the exhaustion of economic resources. Dr. Kuznets, for example, in assessing tax burdens, eliminates taxes for transfer purposes. "But by and large it may be said that a considerable proportion of government outlays does not involve consumption of real resources, labor, or capital in its various forms; but rather a transfer from one group of members of society to another, without representing compensation for any use of materials or labor."[2] When, for example, $5 billion is collected for interest payments, it is transferred to the *rentier* class. The latter, instead of the taxpayers, has the disposal of the cash. If the $5 billion had been spent for war, for example, this would have constituted a demand for resources and labor and the burden would have been felt in labor expended and in capital and resources used up.[3]

An optimistic position is also presented by some Oxford economists. They emphasize, *inter alia*, the importance, not of the magnitude of the debt, but of the distribution of ownership and taxes. Transfers, with a rising debt and an expanding society, need not necessarily rise in disproportion to tax revenues *at existing rates of taxes:* the standard rate of income tax need not rise if population and technical progress are adequate.[4]

THE POSITIVE SIDE OF THE QUESTION: DEBT IS A BURDEN

13.2. EMPHASIS IS PUT ON THE TAX BURDEN. As stated above, all economists do not subscribe to these views.[5] Dr. Moulton, for example,

[1] A. P. Lerner, *The Economics of Control*, pp. 302–303, 1944.

[2] S. Kuznets, "National Income and Taxable Capacity," *A.E.A. Proc.*, 1942, p. 46; *cf.*, however, p. 59; also H. A. Silverman, *Taxation: Its Incidence and Effects*, pp. 33–41, 1931.

[3] *Cf.* Harris, *Postwar Economic Problems*, p. 175, 1943.

[4] Oxford Institute of Statistics, *op. cit.*, pp. 44, 101. These modern statements should be compared with the classical views presented in Ch. IV.

[5] For an able statement, which stresses the burden, see B. U. Ratchford, "The Burden of a Domestic Debt," *A.E.R.*, 1942, pp. 451–467.

ridicules those who contend that, since transfers are involved, no burden is imposed. If the argument holds he contends, then, one might as well assume that corporations collectively considered, or local or state governments, can incur debts without cost. In his view, expenditures for doles, veterans, and public works do not yield income to cover debt. The basic error is, he says, that the "Treasury simply cannot get back in taxes, levied upon the additional income it distributes through its disbursements, as much money as it pays out."[1]

THE MIDDLE GROUND

13.3. TAXATION IS A BURDEN. Perhaps Dr. Lerner makes too little of the taxes levied to pay interest. Surely taxes of $300 billion, part of which will be levied on those receiving $150 billion of income other than interest on bonds, will affect motivation. Let us even assume that the recipients of the noninterest income pay only $50 billion of the $300 billion of taxes required to finance the debt. In that case, abstracting from other taxes, they can expect only *two* out of three dollars earned—they receive $150 billion and pay out in taxes $50 billion—whereas without debt they may expect *three* out of every three dollars.[2]

Let us see how much further we can go along with Dr. Lerner. His theory that the public debt is not a burden will be acceptable (but even then we must insert some reservations) only under one condition: that Dr. Lerner adheres strictly to his position, *viz.*, that taxes are not required to finance the interest payments. It may well be that taxes levied to prevent an inflation—the only condition under which Lerner would tolerate taxes—do not involve the country in a net burden: what is lost through taxation is saved in the avoidance of inflation. Whether, however, as a matter of practical public policy, it would be possible to allow debt to grow while interest payments were being financed through additional borrowing is another matter.

13.4. ANALOGY WITH PRIVATE DEBTS NOT APPLICABLE. If Dr. Lerner's position is subject to some criticism, Dr. Moulton's is much more vulnerable. For example, he makes the statement that if federal taxes levied for payment of interest are not a burden then interest payments to local governments or corporations collectively considered

[1] H. G. Moulton, *The New Philosophy of Public Debt*, p. 63, 1943; *cf.*, also pp. 54–55, 62–65; *cf. The National Debt and Government Credit*, pp. 127, 152, 1937. Here too, emphasis is put upon the burden and the need of repayment.

[2] *Cf.* J. E. Meade, "Mr. Lerner on Economic Controls," *E.J.*, 1945, pp. 62–63.

should not be considered a burden either. *But only a very small part of interest payments made by a local government or corporation comes back to its citizens or to the corporation in the form of interest. The analogy just does not hold.* Even a $1-billion corporation that pays out $20 million in interest can count on only an infinitesimal part coming back to the owners of the corporation. When the United States government pays out $6 billion in interest, however, the additional taxes levied on the inhabitants are offset by interest payments received by its inhabitants. (For practical purposes, leakage can be left out of account.)

Moulton's statement to the effect that "the Treasury cannot get back in taxes levied upon the additional income it distributes as much money as it pays out," should also not go unchallenged. (1) The taxes are levied on all income, not merely on income received through interest on government debt. (2) Dr. Moulton seems to leave out of account the favorable effects on total income of spending, inclusive of any returns on government investment.[1]

THE RELATION TO DISTRIBUTION OF DEBT AND TAXES AND THE EFFECTS OF SPENDING

13.5. STUDIES OF TAX BURDENS AND DISTRIBUTION OF SECURITIES. *It is hoped that the reader will not underweigh the burden of public debt; he must not overweigh it either. Above all, the burden should be measured in relation to the distribution of debt and the incidence of the tax burden.*[2] Professor Hansen has effectively made this point. In nineteenth-century Britain, for example, he notes that the taxes were largely on consumption and the debt was held by high-income groups. Where capital was badly needed, even this distribution of taxes and bond holdings might benefit the country.[3]

Mrs. Hicks made a similar study for a recent period. It revealed that the very rich in Great Britain paid highly progressive taxes but received only proportionate interest payments, and the low income groups paid regressive taxes and received little or no interest payments. In the middle group she found a rough correspondence between interest and taxes.[4] Yet one should not conclude that if £ 100 is paid in taxes and a similar amount received in interest the taxes imposed are not a burden. Taking into account both the interest and the additional taxes, the taxpayer may conclude that he is no

[1] *Cf.* A. H. Hansen, *Fiscal Policy and Business Cycles*, p. 159, 1941. Prof. Hansen emphasizes the greater capacity of government, as compared with business, to finance debt.

[2] *Cf.* Chs. XVI, XIX, where these issues are more fully discussed.

[3] *Cf.* the excellent statements in Hansen, *op. cit.*, pp. 155–159 and 169–175; also S. M. Fine, *Public Spending and Postwar Economic Policy*, pp. 67–73, 1944.

[4] U. K. Hicks, *The Finance of British Government*, 1920–1936, pp. 356–357, 1938. In 1925–1926, the Colwyn committee concluded that taxes were paid by all; but interest payments were received by income-tax payers. *Report of the Committee on National Debt and Taxation*, pp. 99–100, 1927.

better off for having bought and accumulated the government securities than if he had spent that money. This is not quite an accurate conclusion either.

The taxpayer's reasoning is faulty in at least one respect. He should not leave out of account the favorable effects upon income of government deficit spending. In World War II, for example, net incomes were about $350 billion above the prewar income level over a corresponding number of years.[1] With this rise of income, private investors and institutions were able to buy about $175 billion of federal securities. Without the deficit financing, they would clearly not have been able to spend or invest in nongovernment securities amounts approximating investments in federal issues, as an alternative to buying securities; for their incomes and savings would have been substantially smaller. The argument occasionally presented, that if the public had not invested in federal issues, they would have spent or invested elsewhere, is not therefore really tenable. *Without the deficit financing, the financial resources would not have been available for alternative spending or investment. In short, against the increased taxes to finance the public debt should be weighed the increased debt held by the public.*[2]

13.6. TAX STRUCTURE WITH AND WITHOUT DEBT. Yet these calculations may well oversimplify the problem. What we should know to judge the burden of public debt is the tax burden and structure required (1) with a public debt and (2) without a public debt. In this country, for example, interest charges on the federal debt in the early postwar may amount to $6 billion. The question then is: How would the tax system be modified if there were no debt, *i.e.*, what taxes would be cut by $6 billion? Perhaps the most reasonable guess is that the major reductions in this country would be in income and corporation tax, for the rise of taxes was mainly in these.[3] If we assume—and we note elsewhere some reservations to these assumptions—that these taxes are actually borne by those who pay them, then the net effect of the disappearance of debt would be savings for taxpayers with relatively large incomes. The losses of interest would be felt especially

[1] *Cf.* Sec. 15.6.

[2] *Cf.* Oxford Institute of Statistics, *op. cit.*, pp. 101–102. Another interesting fact is that in 1936 British income tax yielded an amount roughly equal to the interest on the public debt. Since the surtax yielded but 25 per cent of the cost of debt service, and government debt was largely held by surtax payers, the evidence would seem to be that financing of debt involved transfers from poor to rich.

[3] I assume that the major reductions in the near future (exclusive of reductions associated with reduction of debt charges) will first be in corporation taxes, then excise, and then income taxes for low and very high incomes. Actually, from fiscal years 1945 to 1947 it was anticipated, following the first tax-reduction bill, that direct corporation taxes would be reduced by one-half, direct income taxes on individuals by two-fifths, and excise and employment taxes would rise. *The Budget* 1947, p. LXXVII.

by banks and high-income groups. *On the whole, it would seem that if we had no public debt the high-income groups would probably derive more advantage from its lack—because of the resulting reduction in their taxes—than disadvantage—because of their resulting loss of interest.* Further study of this problem is needed, however.[1] (Actually, the loss of income resulting from the disappearance of public debt depends upon the circumstances: Was the debt repaid? What was the manner of repayment? Was the debt repudiated?)

13.7. EFFECTS MAY BE FAVORABLE, AND ESPECIALLY IF ALLOWANCE IS MADE FOR EFFECTS OF SPENDING. In this chapter we have been examining the question of whether public debt is a burden or not. We saw that the answer depends on many considerations. If the answer is in the affirmative, then another question presents itself: How great is the burden? The answer to this also will depend on other considerations. It is because the total gains of deficit financing seem to exceed the costs that economists frequently recommend it. Among the advantages of deficit financing are to be listed, for example, the favorable effects of spending on income, on tax receipts, on the creation of necessary supplies of money (and, hence again, on income). *In assessing public debt, one should consider not only the burden of taxes imposed to finance it—that is only one side of the coin—but also the net effects on private spending of the creation of debt as well as of the way it is financed.*[2] Opponents of deficit financing are inclined to concentrate their attention too much on its financing and to leave out of account its salutary effects. But the financing of the debt may even help to maintain or increase spending —and not only when the interest payments are financed by borrowing or the issue of paper money. If the bonds are widely held and if the additional taxes imposed to finance the interest are assessed against high-income groups, the net effect of *financing* the debt may well be a rise of spending. We need more information on this also. Further investigation of distribution of securities and taxes may well yield the evidence.

13.8. CONCLUSION. Conclusions at this point are necessarily provisional; for later chapters, and to some extent earlier ones, throw additional light on the measurement of burden.[3]

[1] *Cf.* Ch. XVI and Federal Reserve System, *Public Finance and Full Employment*, pp. 87 and 90, 1945. Dr. Wallich here estimates the relation of gross interest and taxes imposed on the *rentiers*, and he finds that the net effect on hoards of interest payments of $5.7 billion would be but $1 billion.

[2] *Cf.* Secs. 14.6–14.7 and 15.6.

[3] *Cf.* Chs. II, IX–XI, XIV–XX, XXIII.

In general, my provisional answer to the question: Is the debt a burden? is as follows: The burden is substantially less than that envisaged by most laymen and many economists. What is paid in taxes, the *rentier* (taxpayer) receives. Economic resources are not used up, as for instance, when the government buys war supplies. The analogy with business is a false one, since what the corporation pays out does not find its way back to the corporation, whereas what the government pays out from taxes finds its way back to the people. Finally, those who object to deficit financing because of the burden exaggerate that burden when they leave out of account the favorable affects of deficit spending on monetary supplies, income, and savings. And when they take account of the favorable effects on these, the burden lessens relatively.

Yet we do not accept fully the Lerner thesis that public debt is no burden at all. First of all, since a perfectly functioning economic and political machine does not now (or ever) exist, we cannot support Lerner when he takes this for granted. In addition, since the public is not disposed to accept the thesis that public spending be pushed as long as deflation threatens, even to the point of financing interest payments out of borrowing from the banks, or issuing greenbacks, the Lerner program may not be practical. And we cannot assume the management of a monetary system that would ensure the country against inflation, once the vast supplies of money required to carry through Lerner's program were unloosed on commodity markets. Nevertheless, Dr. Lerner's contributions to the subject of deficit financing are most valuable: the educational job must go forward; and leaving out of account the institutional difficulties, Dr. Lerner's reasoning on deficit financing is sound.

In assessing the burden, we should also consider the following:

1. Taxes are a burden. *Ceteris paribus*, the country is better off without the additional taxes required to finance interest than with them.

2. Leakages result from large payments of interest.

3. Whereas an increase of leakages is harmful, because it means less spending, the leakages can be cut if taxes are assessed on high-income groups and if bonds are widely distributed.

Chapter XIV

Debt Potential in Relation to Wealth

THE ARGUMENT

Widespread attention has been given to the relation between debt and wealth. The present chapter deals with this problem. The limitations put upon debt by the value of the assets, it will be found, are not so restrictive as for private enterprise. It is to be emphasized that the process of debt creation by the government does not destroy wealth though, under certain conditions, the income may be reduced. *What matters is the repercussions of debt on prices, incomes, and the rate of interest; for it is the values of these variables that determine the country's wealth. And since, in recent years, the creation of debt has brought higher prices (relatively), higher incomes and lower rates of interest, government debt creation has also accounted for a rise of wealth—in part monetary, in part real.* In general, national debt in the United States rose much more rapidly than wealth—since 1880 perhaps fifteen times as much as wealth. *Yet movements in income, prices, and population in these* 65 *years convince us that, despite the relatively rapid rate of debt expansion, the country is immeasurably better off than in* 1880*—even after allowing for debt charges.* And we can expect the same for the future—the crucial issue is not whether the country can afford a large debt in the future, but rather whether the country will want to tax itself adequately to the pecuniary profit of *rentiers.*

These, then, are the main conclusions of this chapter. For the assumptions and the arguments, the reader is directed to the following.

DEBT AND WEALTH: PRIVATE AND PUBLIC ASPECTS

14.1. THE ANALOGY WITH MORTGAGES ON PRIVATE PROPERTY. Students of the public debt should assess it in relation to the wealth of the country, the latter being the dollar value of factories, residences, inventories of business and consumers, and so forth. The reason is

easily understandable. *The public debt is considered a charge on the wealth or assets of the nation in the same manner as corporate management relates debts to assets or the insurance company relates a mortgage to the value of the estate or farm.* In all cases, then, it is assumed that there should be a proper relationship between debt and wealth (or assets), a relationship (say) of 3 of wealth for 1 of debt, or 2 to 1, or even 5 to 4. Generally, an excess of debt over assets, whether in a private or a public enterprise, would be considered a sign of impending collapse.

Yet this analogy between private and public debt may be carried too far. Our current national wealth, for example, may be put at between 300 and 500 billion dollars. Are we to assume that, if the public debt should rise to an amount in excess of, say, $350 billion, the country would face bankruptcy? Few responsible observers will take that position, for obviously there are limits to our parallelism between public and private debt. Whereas corporation indebtedness must be paid out of corporation earnings and these are determined primarily by the earning power of the assets held, government's indebtedness can be financed out of that part of the income of the country which the government can collect in taxes.

Two points should be emphasized here. The first is that tax capacity depends not only on income derived from wealth, but also on labor and management income. Approximately two-thirds of our national income is labor income. Whereas private business must relate debt to wealth, the government relates the debt *charge* to total *income*, inclusive of labor income and the income of the government debt.

The second point is that with the growth of public debt the national income rises, both because deficit financing stimulates employment and hence raises income and because the interest on the debt is part of the national income. Part of this additional income may be tapped by the tax collector. Whereas debt on private enterprise is a burden not balanced by gains of income associated with the effects of expenditures of borrowed funds on the economy, public debt is a burden on the government alleviated by the ensuing rise of income and tax capacity.

A HYPOTHETICAL EXAMPLE BRINGS OUT THE RELEVANT VARIABLES FOR DETERMINATION OF THE DEBT LIMIT

14.2. WEALTH, DEBT, AND INCOME. Naturally, there is a limit beyond which the ratio of public debt to the country's wealth cannot

rise without disastrous effects. Although one would hesitate to state the precise ratio, an example may clarify our point. (*The figures here chosen are not to be assumed to reflect the author's anticipations or recommendations of growth of debt.* On the contrary, there is every reason to assume that the debt figures discussed here are far beyond today's anticipation for the future.)

Assume that, by the year 2000,

1. The public debt is $4,000 billion.
2. The interest on the public debt is $80 billion.
3. The national income is $240 billion + $80 billion interest on public debt.
4. Property income exclusive of interest on public debt but inclusive of farm and entrepreneurial withdrawals is $60 billion.
5. National wealth is $500 billion.[1]

14.3. SOURCE OF TAXES REQUIRED FOR INTEREST. Where would the government obtain this hypothetical $80 billion required to finance the interest charge? (I assume a low rate of interest and sales of bonds at varying rates to different segments of the market—minimum noninflationary sales always being an important objective.) The main sources of this tax revenue for the government would be

1. Property income exclusive of returns on government bonds.
2. Nonproperty income.
3. Income received as interest on government bonds.

Our assumptions of income and wealth are not unreasonable. The 2 per cent rate, which some may consider too low, is the average computed rate—the banks receiving 1 to 1½ per cent and others (nonbanking investors) receiving between 1½ and 3 per cent. We assume also that the bondholder is not to have special taxes assessed against interest from these bonds. He pays taxes according to his income, as do all recipients of income. (Differences of tax loads in relation to income assumed below are explained by differences in income levels of those receiving interest, other capitalist income, and earned income—the tax system being progressive.) It may well

[1] This is a rather low estimate for wealth. In fact estimates of wealth vary greatly. In the 47 years 1880 to 1927, the rise of wealth was from 43 billion dollars to 336 billion dollars, or about seven times. If from 1940 to 2000 wealth should rise at but one-third the rate of these years, the nation's wealth in the year 2000 should be approximately between 700 and 800 billion dollars. The proportion of wealth to income in the years 1880 and 1927 was 3.7 and 5.7, respectively. (Income is in 1935 dollars. The ratios are 6 and 4½ when income in *current* dollars is used—a more significant variable for this comparison.) If the ratio of wealth to income in 2000 should be 5 to 1, then at an income of $240 billion the wealth would be $1,200 billion. At a $1,200 billion level of wealth, the ratio of public debt to wealth would be considerably less than is assumed here. Figures for 1880–1927 from P. Studensky, *Public Borrowing*, p. 13, 1930; for later period, from N. R. Committee, *The Structure of the American Economy*, Vol. I, p. 377, 1939–1946; N.I.C.B., *The Economic Almanac for* 1945–1946, p. 71, 1945. (Comments on income figures are presented in the next chapter.)

be assumed, however, that the bonds, which on these assumptions account for four-fifths of all property rights of $5,000 billion (debt = $4,000 billion and wealth = $1,000 billion) are to a considerable degree in the possession of high-income groups and banks. An average tax rate of 50 per cent might be assumed. Average *net* return on federal bonds is then 1 per cent, and the taxes paid by holders of Treasury issues, $40 billion. This, of course, may be too low a rate to exclude large inflationary sales. Yet in view of the high degree of liquidity which is an almost certain aftermath of continued large issues, the public may well prefer 1 per cent interest to cash which yields no return. Income from other assets, moreover, is presumably subject to equal taxation and, therefore, investors will not be able to sell bonds and substitute nontaxed assets.

So we obtain $40 billion. But where will the government obtain the remaining $40 billion of taxes to finance interest payments? The answer is in part from nonproperty income. But there is clearly a limit to the extent to which the recipients of $180[1] billion of nonproperty income will accept taxes to maintain the *rentier* class. The remainder will have to come out of property income; a large proportion of this, however—farm income and entrepreneurial withdrawals—is in no small part labor—rather than property—income; and farmers, managers, and entrepreneurs may object to taxes for the financing of interest payments. It is conceivable that 25 per cent, *i.e.*, $15 billion, may be exacted out of property income ($60 billion) for the payment of interest on bonds and around 13 to 15 per cent out of other income of $180 billion, *i.e.*, $25 billion. Inclusive of $40 billion collected from the holders of Treasury issues, the government may then obtain the required $80 billion.

14.4. WILL THE NECESSARY CONDITIONS BE FULFILLED? Such are the methods by which the $80 billion interest payments might be arranged. (The reader is again reminded of the hypothetical nature of the foregoing discussion: that, above all, the assumed debt is fantastic; and at this point, we do not consider noneconomic aspects of the problem.) Whether all three of the necessary conditions would be satisfied is subject to some doubt. These conditions in question are (1) that the public will be content with 1 per cent net return on bonds, (2) that recipients of nonproperty income will submit to an additional tax of between 13 and 15 per cent in behalf of the creditors of government, (3) that recipients of property income (exclusive of interest or federal debt) will submit to the additional tax of 25 per cent of their income.

Whether the large debt can be financed will depend in no small part on the tax burden required to pay for other tasks of the government—for the less the tax burden to satisfy other needs of the government, the more likely that the taxpayer will submit to heavy additional taxes to pay interest on debt. If, for example, deficit financing were associated with government reluctance to tax (*e.g.*, because of depressive effects of taxes), then the capacity to meet interest payments would be greater than if tax capacity had

[1] Income exclusive of interest and other property income is 240 − 60 = 180 (billion dollars).

largely been used up to satisfy needs of the government other than the financing of the debt.

We return again to the relation between the public debt and national wealth. The larger the public debt and the heavier the tax burden, the greater the pressure will be to impose the additional tax burden on property income—within limits, of course. Rates are too high when they reach the point where they jeapardize private enterprise and risk taking.

The limit, it will be noted, is fixed not so much by the income level as by public attitude toward taxation imposed largely to support a large rentier class. If, as assumed, our total income within a few generations will be $320 billion or more, then, even after taxation, there will still remain $200 billion, which will yield a much higher standard of living than we have been accustomed to, and in addition more than two-thirds of the taxes will return as income to *rentiers* and others. (I assume $40 billion of taxes exclusive of interest on public debt.)

WEALTH IS NOT DESTROYED

14.5. PUBLIC DEBT NOT TO BE SUBTRACTED FROM WEALTH. *Wealth has not been wiped out by the mere existence of public debt.* Our land and improvements (together 54 per cent of wealth in 1938 according to one private estimate), productive assets of individuals and corporations (8 per cent), our public utilities (15 per cent), and our goods (24 per cent) have not been destroyed by the accumulation of public debt.[1] They still yield their income and satisfactions. *It would be odd indeed to imagine that financial transactions between government and citizens would, for example, deprive our land of its fertility—a part of our wealth.*

According to the Industrial Conference Board, the country's wealth was $363 billion in 1929 and $293 billion in 1935. An official estimate puts the wealth of the country at $365 billion in 1935.[2] The juxtaposition of public debt could not cause this wealth to disappear. For the public to hold on to that set notion is regrettable, since it is no better than a bogey—baseless and false.

Let us list the wealth of the United States for 1935, by categories (Table 15). This breakdown is of interest for several reasons, but mainly to demon-

[1] The figures have been rounded off, and hence the total exceeds 100. *The Economic Almanac for* 1945–1946, p. 57.

[2] N.I.C.B. *op. cit.*, p. 57; N. R. Committee, *op. cit.*, p. 377. *Cf.* T.N.E.C. Monograph 20, *Taxation, Recovery, and Defense*, p. 272, 1940. *Cf.*, also, Senate Doc. 126, *National Wealth and Income: A Report by the Federal Trade Commission*, pp. 1–2, 1926, which estimates the national wealth in 1922 at $353 billion, of which but $230 billion were in real estate and $123 billion in tangible property and movables.

strate the durable nature of most of our wealth. Items 1 (government), 10 (residential housing), and 11 (personal property) account for roughly one-half of the country's wealth. For the most part they do not yield money income; therefore, the public debt will not be a charge upon them; they will contribute their services largely irrespective of debt. Any untoward effect of a rise of public debt will be concentrated on the other items.

TABLE 15.—WEALTH OF THE UNITED STATES, BY CATEGORIES,* 1935
(In billions of dollars)

1. Government property including gold	49
2. Banking and finance	16
3. Utilities	51
4. Services to consumers, including public education	27
5. Agriculture	39
6. Manufacturing: inventories and fixed capital	31
7. Trade: inventories and fixed capital	13
8. Mining: inventories and fixed capital	6
9. Construction: inventories and fixed capital	1
10. Residential housing	84
11. Personal property	46
Total	363

SOURCE: N.R. Committee, *The Structure of the American Economy*, Vol. I, p. 377.
* Main items.

It is, of course, conceivable that excessive taxation resulting from the increased burden of the debt could reduce income from agriculture, trade, and manufacturing to a point where production would be impaired: Why produce, it might be asked, if the government takes most, if not all, of the net yield? If incomes fall, then, *ceteris paribus*, the dollar value of assets will decline. We must be certain first, however, before taking this for granted, that dollar income will fall—an issue discussed later. With the rising income that we anticipate, the adverse effects of a growing debt are not likely to be serious. But what matters here is the point that the growth of debt does not destroy the country's wealth and, in fact, may well be consistent with continued growth.

GROWTH OF PUBLIC DEBT—EFFECTS ON INCOME, RATE OF INTEREST, AND WEALTH

14.6. RELATION OF THE RATE OF INTEREST AND INCOME TO WEALTH. Clearly, the dollar wealth of the country depends mainly on incomes yielded by its assets and the rate at which these incomes are capitalized. At 4 per cent, a perpetual income of $1 million is worth $25 million; at 2 per cent, $50 million, the explanation of the higher capital value at 2 per cent being the reduced rate of discount of incomes yielded in the future. If the process of incurring debt reduces the rate of interest or raises income from property, then this process can be said thereby to increase the wealth of the country. Thus, before making any estimate of the effect of debt creation on wealth,

we must consider the resulting changes in the rate of interest, prices, and income—the effects these will have on total wealth.

At least over the period 1935–1945 *the creation of public debt has tended to increase prices, reduce the rate of interest, and raise output.* From 1929 to 1935, on the other hand, the reduction of prices by 16 per cent and of income payments by almost 30 per cent accounts for the reduction of wealth by about 20 per cent. If we had not had the marked reduction of interest rates, the decline would have been greater.

A rise of wholesale prices of 32 per cent, of income payments of 175 per cent, and a reduction in the interest rate (computed rate of government issues) of about 25 per cent, all from 1935 to 1945, must account for a very large expansion in the wealth of the country.[1] Surely the most important explanation of the rise in incomes and prices and the decline of interest rates is government deficits. We are now discussing the money value of wealth—we shall comment on real aspects presently.[2]

14.7. GROWTH OF WEALTH, DEBT, AND OTHER RELEVANT VARIABLES. It should be clear by now that too much attention has been paid to the relation of public debt and wealth by those who are excessively concerned with the dangers of a growing debt. Those who would reassure the country, on the other hand, are inclined to emphasize the favorable effects of a growing debt on wealth and the large residual of wealth exclusive of debt. That a study of the relationship of debt to dollar wealth is of limited value is certainly clear. For this reason, we turn in the next chapter to a more important relationship, *viz.*, interest on debt and national income.

The reader especially interested in the statistical relationship of debt and wealth should consult the works cited below.[3] We find, for example, that the federal debt was 4 per cent of the nation's wealth in 1860, 0.6 per cent in 1913, and 11.2 per cent in 1936. Total government debt was 3.1 per cent of wealth in 1890, 2.6 per cent in 1912, 9.6 per cent in 1922, and 16.9 per cent in 1936.

Perhaps a more interesting comparison is the change in wealth and federal debt from 1880 to 1946. Wealth, which in 1880 was estimated at $43.6 billion, is now valued at between eight and ten times that amount (300 to 450 billion dollars), and federal debt, which was

[1] Figures in last paragraphs from *F.R.B.*, April, 1946, p. 419; and *Treas. Bull.*, May, 1946, p. 27; N.I.C.B., *op. cit.*, p. 57.

[2] If space were available, I would discuss the war period fully. Here it needs to be observed only that a rise of public debt of about $225 billion was accompanied by an expansion of income from 70 to 160 billion dollars, and a reduction in the rate of interest—in so far as these gains can be held, the result is a vast increase of wealth; and this despite any temporary run-down of civilian plant.

[3] *Cf.* H. E. Fisk, *The Public Debt*, p. 63; Studensky, *op. cit.*, p. 13; The Twentieth Century Fund, *The National Debt and Government Credit*, pp. 65–73, 1937.

slightly over $2 billion in 1880, is up to nearly $300 billion, a rise of 150 times. Thus, debt has grown about fifteen times as much as wealth.

In the opening paragraph of this section we questioned the significance of such comparisons. A consideration of changes listed in Table 16 suggests their limited validity.

TABLE 16.—POPULATION, NATIONAL INCOME, AND WHOLESALE PRICES, 1880 AND 1945

Year	Population (millions)	National income (billions of dollars)		Per capita income		Wholesale prices (index number) 1926 = 100
		1935 dollars	Current dollars	1935 dollars	Current dollars	
1880	50	12	7	240	140	65.1
1945	140	123	160	878	1143	105.8*

SOURCE: Population: N.R. Committee, *The Problems of a Changing Population*, pp. 21, 24, 1938. Income: N.R. Committee, *The Structure of the American Economy*, Vol. I, p. 377, for 1935 dollars; N.I.C.B., *Economic Almanac for 1945–1946*, p. 71, for current dollars. Prices: Senate Committee Print 4, *Basic Facts on Employment and Production 1945*, and *S.C.B.*, March, 1946.

* Average.

The federal debt indeed rose 130 times; while population increased by close to two times, income in stable dollars (the 1880 estimate grantedly is crude) more than nine times, per capita income almost three times, and prices by 63 per cent. All these changes are not additive—the rise of income reflects increased productivity as well as the increase in population and prices. *Yet the rise of debt by* 130 *times, or fifteen times the rise in wealth, seems considerably less disturbing when assessed in terms of a rise of income of* $153 *billion, (in current dollars), or a sum equal to approximately twenty-five times the annual postwar charge of* $6 *billion on the public debt.* A charge of $6 billion in 1880, moreover, would equal less than $4 billion in 1945 dollars.

14.8. CONCLUSION. The main point emphasized in this chapter is that, in ascertaining debt potential, comparisons of federal debt and national wealth can mislead. Debt creation seems to result in rising real incomes and falling rates of interest and, therefore, increased wealth. We have also emphasized the point that the analogy with mortgages on private wealth is of very limited application here. Yet the amount of wealth is of some importance—the burden of taxes for interest payment on debt will tend to be passed on to the owners of the country's wealth. Incomes are in general a more relevant consideration to debt than wealth is, and we, therefore, turn to that subject in the next chapter.

Chapter XV

Debt Potential and Income

INTRODUCTION: THE ISSUES

Taxes are paid primarily out of income; nine-tenths of our 1945 federal tax receipts came from income taxes. It is, therefore, very important to study the debt charge in relation to the national income. In the preceding chapter it was noted that a large part of national income (*e.g.*, services) is related only remotely, if at all, to national wealth and that, among other reasons, this is why the wealth of a country does not offer an accurate index of debt potential. The charge on debt, however, should be directly related to national income.

In this chapter, then, we concentrate on national income—past, present, and future. In the past, the gains in our national income have been phenomenal. Income figures—admittedly crude but certainly adequate to indicate the trends—reveal on the average a doubling of income every 15 years during the last 80 years. Population, it is true, will not continue to increase so rapidly as in the past 80 years. But we can take up the slack by improvement in other areas: we can expect better management of our economy than in the past and even more rapid technological and educational advances, inclusive of better training of workers and managers. Thus, an approximate doubling of our income in the next 30 years (instead of each 15 years as over the last 80 years) is not entirely in the sphere of idle conjecture. None would have dared predict a rise in national income from $40 billion in 1932 to $78 billion in 1940 and $160 billion in 1944—even if we take into account the war, the rise was larger than anticipated. Even allowing for price rises, the *increase* in *real* national income in 12 years was roughly 200 per cent.

A net national income in 1946 prices of $220 billion 30 years from now and $330 billion 60 years from now—these are conservative projections—could support a debt of fantastic size. *Not that we want or are likely to have such a debt, or anything approaching it (or the hypothetical*

amounts discussed in the preceding chapter). Why we consider these amounts fantastic will be understood if we remember that this country's deficit in the thirties averaged only $3 billion a year, and calculate that from the prewar level it would require the accumulation of a debt at the rate of $20 billion a year (plus interest charges of 3 per cent) to produce a debt of $4,000 billion in 63 years. Average deficits of between 5 and 10 billion dollars yearly may come closer to the mark.[1] *In short, it is dubious that in the next 30 years our public debt will be up as much as $300 billion.* (I assume a period of peace—if we have another major war, the problem of the size of the debt will be of tertiary significance.) In the same period, our annual income should be up at least $100 billion, or perhaps fifteen times the rise in the annual cost of the debt.

This, let the reader understand, is but one aspect of the problem. *To repeat: we do not state that the country can support a debt of $600 billion or $6,000 billion. We do state that on reasonable assumptions as regards interest payments, taxes, population changes, technology, etc., the income of the country should be high enough to support a debt much larger than will be required.*

GROWTH OF INCOME IN THE PAST

15.1. INCOME HAS DOUBLED EVERY 15 YEARS ON THE AVERAGE, 1863–1941. Before stating our expectations as to the growth of income in the future, let us examine past trends. For this, we have to be content with relatively crude figures, but they are adequate for the purpose (see Table 17).

These years in Table 17 were selected because each year reveals a rise of income in the United States of roughly 100 per cent over the preceding year listed. *It has taken, then, 7, 15, 17, 22, and 17 years for our national income to double in successive periods, or actually a rise of thirty-one times.* Trend values for the years 1879–1929 yield an annual rise of 3.5 per cent. If national income should double every 20 years after 1941, then, it would appear that national income would be $222 billion in 1961, $444 billion in 1981, and $888 billion in 2001—all in 1935 dollars. As we shall indicate later, however, these projections are not justified.

15.2. SIGNIFICANCE FOR THE FUTURE. One would be rash indeed to assume that the rate of rise of national income will be as great in the

[1] *Cf.* U. P. A., *National Budgets for Full Employment*, pp. 34–38, 1945, also see ch. VIII of this volume.

future as in the past. In fact, one might well argue that the experience from 1929 to 1939 is a typical example of what we can expect for the future. Whereas income (1935 dollars) was $66 billion in 1929, it averaged around $55 billion in the thirties.

TABLE 17.—TOTAL PRODUCTION (NATIONAL INCOME PRODUCED) FOR VARIOUS YEARS

	(Billions of 1935 dollars)
1863	3.5
1870	7.0
1885	13.7
1902	28.0
1924	55.6
1941	110.7

SOURCE: N.R. Committee, *Structure of the American Economy*, Vol. I, p. 377. 1941 figure added by writer. For income in current dollars, see N.I.C.B., *Economic Almanac* 1945–1946, p. 71.

The manner of estimating income by the N.R. Committee is described as follows (*op. cit.*, p. 377): "Trend values calculated from the formula derived from the data for the years of the period 1879–1919:

Total production = 23.9 (1.035) year—1900
(Billions of 1935 dollars)

"For the years 1920–1937 production is represented by national income produced given in section of this appendix and expressed in 1935 dollars.

"For the years 1863–1920 from Warren and Pearson, *Physical Volume of Production in the United States* (1932) and consists of the index of physical production spliced to the real income produced series by applying the ratio of the two in 1920."

Undoubtedly the ratio of physical production to real income in 1920 is not an accurate guide of their ratios in the earlier years; but it should be adequate for our purpose. Services were undoubtedly a larger part of income in 1920 than in earlier years. For this reason the derivation of income produced in the years preceding 1920, from production figures adjusted by the ratio of production to income in 1920, tends to *overstate* the income of earlier years and to *understate* the rise. One reason for the overstatement of income in the years 1863–1920 is that production has especially profited from technological advances; hence on this account also, production is a smaller part of income in 1920 than in earlier years. If the dollar value of production is depressed as a result of technological gains, then the ratio of income to production is high and, therefore, the multiplier applied to production values of earlier years, in order to derive income figures, is high. It follows that income will be inflated more the further back we go and, therefore, the less the rise of income shown.

We have reasons for optimism, however. We have learned a great deal about depressions and about remedial measures. There is little doubt that a high level of employment and output will be maintained or, if a significant decline occurs, that corrective measures will be taken much sooner and more boldly than in the thirties. We can count on high levels of employment, which in the current state of technological progress means rapidly rising money incomes. (I assume that the gains will be taken in rising incomes, not in falling prices—see the next chapter.)

INCOME OF THE FUTURE

15.3. RISE OF OUTPUT AND MAN-HOUR OUTPUT—PAST AND FUTURE. Some light on future income is shed by a projection into the future of recent figures of industrial production and output per man-hour (Table 18). For various reasons, too much reliance should not, how-

ever, be placed in these estimates. For example, the rise of output per man-hour will depend in no small part upon the level of employment. Output per man-hour will be much higher at high than at low volumes of output; but at very high levels, man-hour output will begin to decline. *The adverse effects on output per man-hour associated with very high employment will, however, be more than made up by the absolute rise of industrial production as employment reaches a maximum.*

TABLE 18.—INDICES OF INDUSTRIAL PRODUCTION AND PRODUCTIVITY—RATE OF INCREASE SINCE 1919, PROJECTED INTO THE FUTURE
1940 = 100

	Average 1919–1920	1940	1960	1980	2000
Productivity	50	100	200	400	800
Industrial production	60	100	167	278	464

SOURCE: Adapted from *F.R.B.*, December, 1941, p. 1263; and S. Bell, *Productivity, Wages and National Income* p. 270, 1940. The percentage gain for the years 1919–1920 to 1940 is applied to each succeeding period of 20 years

Our income will be high and continue to increase—if we can provide good management, and particularly political wisdom. Our objective need not be a doubling of income every 15 years—the accomplishment of the years 1863 to 1941. Even if our national income of 1941 doubles only every 30 years, we shall have had a national income of $220 billion (exclusive of interest on national debt) by 1971 and $440 billion by the year 2001.[1] In the period 1971–2001, however, the rate of increase should be substantially less, for population will be relatively stationary.

15.4. THE SIGNIFICANT VARIABLES—AN APPRAISAL OF THEIR IMPORTANCE. *The important variables to be considered in projecting national income are technological advances (and increased productivity), the rise of population, numbers on the labor market, working hours, and the price level.* They will largely determine the rate of income growth.[2] (I assume relatively high employment—though we attained the gains in national income of the last 80 years despite substantial amounts of unemployment.)

[1] I take as the base the last prewar year 1941, not the year 1944; income in current dollars in the latter year was $160 billion and in 1935 dollars, around $130 billion. It may seem that perhaps the year 1941 is not a good base year because military expenditures were already large. They are likely to remain so, however, in the next generation or two; and our anticipated gains in income have been on the moderate side.

[2] Discussion of prices is deferred to the next chapter.

None who has witnessed the rate of technological, scientific, and managerial advances in the last twenty years is likely to doubt even greater future advances. Accessibility to research facilities for small business, improved dissemination of knowledge, the increased skills and discoveries resulting from the war, further progress in technical and managerial training, the crusade against patent hoards—all these will help greatly, not to mention the thousands of new discoveries.

Prospects for population increase, on the other hand, are not so bright as in the past. From 1860 to 1940, the rise of population was from 31 million to around 135 million, or 3½ times.

The population doubled: in 30 years, from 1860 to 1890, in 45 years, from 1890 to 1935.

The anticipated gain for the 45 years from 1935 to 1980, however, is but 22 millions, or less than one-fifth. Furthermore, the proportion of the aged, *i.e.*, the unproductive, is on the increase. For example, those over the age of 65 were 8.4 million in 1940 and estimated at 22 million by 1980—a rise in the number of aged many times that in the entire population on reasonable assumptions as to future fertility and mortality.[1] Offsets to this will be a probably slower rate of decline than in the past of man-hours of work for those of working age and a reduction in the proportion of young.

The declining rate of population increase is not an insuperable handicap—so long as we manage our economy in a manner to provide jobs for all who seek work. *Actually, the income gains of the past have been at a much more rapid rate than the rise of population.*

Thus from 1863 to 1890, the rise of real income was almost four times that in population. And from 1890 to 1935, the increase of real income was 2⅓ times that of population, and this despite the fact that 1935 was in the midst of a long depression.[2]

15.5. ESTIMATES OF FUTURE INCOME, AND DEBT POTENTIAL. Over a period of 75 years (1860–1935), our national income (in current dollars) rose by about 1,200 per cent and population by 304 per cent[3] —a proportion in the rise of these two variables which indicates that the major part of our advances may be retained. The British econo-

[1] Rise of population is estimated on medium assumptions of fertility.

[2] Figures in last paragraphs based largely on N.R. Committee, *The Structure of the American Economy*, and N.R. Committee, *The Problems of a Changing Population*, pp. 21–24, 32, 1938.

[3] N.I.C.B., *Economic Almanac for* 1945–1946; national income in 1859 was $4.3 billion; in 1935, $56.4 billion; population in 1860, 31.5 million; in 1935, 127.25 million (pp. 7, 71).

mist G. Crowther, basing his projection on an estimated yearly rise in productivity of but 1½ per cent, or but 42 per cent of the gains in the years 1879–1929, and average fertility, anticipated a rise of income in the United States over prewar income in the thirties, of 5.13 times by the year 2000—the result, a figure around $300 billion.[1]

One point suggesting continued gains in productivity is the low density of our population. In a recent year the density per square mile was 41 in the United States, 685 in England, 348 in Germany, and 434 in Japan proper.[2]

As for technology, we may expect even greater gains than in the past. One drawback here is, however, our limited national resources. Yet even with limited natural resources, great development is expected from synthetics.

When we consider income potential and add up all its components, we see then no reason for great concern regarding the growing public debt. If we can count on good management—which implies high levels of employment and trade—and the avoidance of costly wars, then our income and standard of living will be high and, hence, our debt potential will also be high. In summary, there is every reason for anticipating continued large gains in income. With rising incomes—and the rise will be larger, the better the management—we shall be able to finance more debt without serious effects on our economy.

DEFICITS AND INCOME IN WAR

15.6. A CASE STUDY: DEFICITS RAISE INCOMES. On the matter of public debt, the favorable effects of deficits on income must be considered, especially the relative movement of deficits and income in World War II. For the fiscal years 1941–1945, interest-bearing debt rose from 48.4 billion dollars to 256.4 billion dollars, while incomes (in calendar years 1941–1944) were 96.9, 122.2, 149.4, and 160.7 billion dollars, respectively, a rise of $294 billion above the income that would have been achieved if our income had remained at its (already high) 1939 level; it can therefore be said with certainty that *national income rose far more than deficit.*[3] *Approximately* 45 *per cent of the increased income was saved;* 40 *per cent was spent on consumption; and* 15 *per cent was paid in additional personal taxes.*[4] (For the details the reader should consult Table 19.) Savings are reflected in growth of deposits, cash, and public securities, not in corresponding investment. In fact, government

[1] G. Crowther, "British Twentieth-century Economics," *Yale Review*, Winter, 1945, pp. 218 *ff.*

[2] *The Problems of a Changing Population*, p. 27.

[3] *Cf. Treas. Bull.*, April, 1946, p. 23; *S.C.B.*, February, 1946, p. 8.

[4] *Treas. Bull.*, April, 1946, pp. A-11 to A-15.

decrees prevented these savings from being used during the war to put men to work on civilian goods. (Wartime savings may well be used for that purpose in the postwar.) While in relation to 1939 levels, our deficits rose $166 billion, our incomes increased $294 billion and savings were up $130 billion (all for fiscal years, 1941–1945),.

TABLE 19.—FEDERAL DEFICITS, INCOMES, CONSUMPTION, SAVINGS, AND PERSONAL TAXES, 1939 (MULTIPLE OF), 1941–1945, AND RELATION OF WAR AND PREWAR YEARS
(In billions of dollars)

	(1) Total 1941–1945	(2) 1939 total multiplied by 5 (calendar)	(3) Excess (1) over (2)
Deficits	184	18	166
Incomes	648	354	294
Consumption	429	308	121
Individual savings	139	30	109
Corporation savings	23	2	21
Personal taxes	59	16	43

SOURCES: Deficits: *Treas. Bull.*, September, 1946, p. 6. Other items: *S.C.B.*, April, 1944; February, 1946, pp. 7 *ff.*

SEVERAL ESTIMATES OF DEBT POTENTIAL

Many estimates of the rise of public debt, based on a variety of assumptions, have been made. Four are reviewed below, two published previously by the writer.[1]

15.7. ESTIMATE FROM *Postwar Economic Problems.* Table 20 presents some hypothetical cases. The reader will observe that the ultimate size of the public debt will depend in no small part on the costs of nondebt government services. A much larger public debt is suggested under 1 than under 3, despite the fact that the total tax burden is much larger under 3 than under 1. Case 1 includes tax charges (other than for debt servicing) of but 64 per cent of the charges assumed under 3. The country may be able to carry a debt burden of $300 billion with an income of $100 billion, if our tax system is overhauled and other demands on the Treasury are kept in check, and a fortiori if the postwar national income remains at between 140 and 150 billion dollars, or more.

At an income of $150 billion, the debt potential rises greatly in response to a reduction of nondebt charges, an increase of tax capacity, and an allowance for the relative lightness of the burden imposed by transfer taxes.

[1] Space precludes discussion of a third estimate by the writer. The main lesson derived from that study is the overwhelming importance of the rate of interest. A study of the table in *Postwar Economic Problems*, p. 184, will reveal that the debt charge will increase much more rapidly with a 3 per cent than with a 2 per cent rate and that once the government begins to finance its interest out of new borrowing, the debt grows at an appalling rate.

15.8. DOMAR'S ESTIMATE—1944: THE DECISIVE IMPORTANCE OF NATIONAL INCOME. An excellent study of debt potential has recently been published by Dr. Domar. His results should, of course, be interpreted on the basis of his assumptions. In particular, he abstracts from charges on the government other than for interest on public debt—these are assumed to be charged

TABLE 20.—HYPOTHETICAL CASES OF INCOME, TAXATION, AND PUBLIC DEBT
(In billions of dollars)

Case	National income*	Total taxes	Taxation for purposes other than Federal debt	Taxation for debt financing	Public debt (assumption of a 2½ per cent rate of interest)
1	100	26	14†	12	480
2	100	25	20‡	5	200
3	100	30	22	8	320
4	150	40	25	15	600
5	150	40	14	26	1,040
6	150	75§	15	60	2,400

SOURCE: *Postwar Economic Problems*, p. 182, 1943.

* Assumptions: (1) Prices at 1942 level. (2) Rate of interest = 2½ per cent.

† The prewar figure.

‡ A more likely figure for postwar. As of early 1947, this figure seems too low.

§ It is assumed here that the tax burden is $15 billion + ½ ($75 billion − $15 billion), or $45 billion. Taxes or transfer purposes are assumed to be only half as burdensome as other taxes.

against gross income, the debt burden being a charge against income minus these taxes. He also assumes savings at 12 per cent of national income and a constant and low rate of interest.

If national income remains constant and the government borrows 6 per cent of national income, taxes to finance interest would equal 10 per cent of national income after 50 years, and 26 per cent after 250 years. Even on the assumption of a constant income, debt potential is surprisingly high. (Domar starts with a debt of $300 billion and an income of $130 billion.)

If national income rises at a constant absolute rate of 5 and 10 billion dollars annually, respectively, and the debt rises by 6 per cent of national income, the tax rate required to finance the debt would be 5.31 per cent and 4.37 per cent of national income, respectively, after 50 years, and 16.53 and 15.92 per cent after 300 years. The tax rate at the limit of years would be 100 per cent. It is clear that with a rising income as assumed here the debt may continue to accumulate for many generations without involving the country in a very severe additional tax burden.

If national income increases at a constant percentage rate, the debt burden, of course, will grow even more slowly; and may even decline. At a constant percentage income rise of 2 per cent, the percentage of debt charge (interest)

[1] E. D. Domar, "The 'Burden of the Debt' and the National Income," *A.E.R.*, December, 1944, pp. 798–827, especially pp. 804–812.

to national income will rise from 4.41 per cent in year 0, to 5.21 in 50 years, 5.66 per cent in 300 year, and 5.71 per cent at the limit; for 3 per cent the respective figures are 3.97, 3.85, and 3.85. The importance of the rate of income growth is patently clear. Here an assumption of deficits of 6 per cent of national income reveals insignificant increases in the debt burden over a period of 300 years—in fact, if income rises by 3 per cent, the rate of debt charge to income actually falls.

15.9. A BRITISH ESTIMATE: THE BRITISH CAN FINANCE A GROWING DEBT. In an appendix to Beveridge's *Full Employment in a Free Society*, Dr. Kaldor deals with Great Britain's debt potential.[1] (1) He points out that the annual burden of interest as a percentage of national income reached a peak of 7 per cent in 1815 and 1924 in Great Britain. Despite the large borrowings of World War II, however, the British national debt by 1948 should amount only to 6 per cent of national income; the debt charge being £ 500 million and private income, £ 8,450 million. (2) He traces the British historical variations of national income, which he finds depend on changes in productivity per man-hour, on the working population, on the length of the working week, and on the price level. Since the beginning of the century, man-hour output in *primary and secondary* industry has increased at a rate of 3 per cent compounded and *national real income per man-hour* at the compound rate of 1.5 per cent *per annum*.

Dr. Kaldor expects this rise in Great Britain to be accelerated in the future under a full-employment program in particular (1) because of the stimulus given to laborsaving devices in an economy where labor is scarce, (2) because of the higher rate of capital accumulation, and (3) because with a peak demand for labor in industry the excessive movements into distribution might be arrested. Against the favorable factors, he weighs the effects of an estimated decline in the working population and in hours of work.

Dr. Kaldor concludes that British national money income (at stable prices) should rise over the period 1948–1970 by 1 per cent, or about £ 90 million *per annum*. This implies that the government could easily borrow an amount that adds £ 5 million to the interest charge annually, or at a 2 per cent rate of interest, the additional loans would amount to £ 250 million *per annum*. After 1970, the absolute amount that might be borrowed, with rising incomes, would increase. With taxes at 25 per cent of national income, the central government could presumably raise in taxes 25 per cent of any additional income. The tax rise in Great Britain would then be about £ 22.5 million annually, while the annual increase in expenditures required under the proposed Beveridge program would be but £ 7 million. Hence £ 15.5 million each year would be available for additional debt charges—or £ 775 million per year additional debt might be incurred at a rate of interest of 2 per cent. These sums—which correspond in the American economy with its much higher incomes to annual borrowings of about $15 billion—are much larger than are likely to be required, and even more so if allowance is

[1] Sir William Beveridge, *Full Employment in a Free Society*, pp. 392–401, 1945.

made for more favorable prospects in population, trade, and productivity. These calculations leave out of account the favorable effects on national income of government loan expenditure.

15.10. THE ARITHMETIC OF A FANTASTIC DEBT. A final exercise relates to the arithmetic of a fantastic debt. This exercise is not without its usefulness.

We might make the following assumptions for 1980:

Income = \$240 billion + \$160 billion (interest on debt).
Taxation exclusive of interest on debt = \$40 billion.
Rate of interest = 2 per cent.
Tax burden = 30 per cent of national income: 40 + 80 = \$120 billion, or 30 per cent of income of \$240 billion + \$160 billion (taxes to pay \$ interest are considered one-half as burdensome as other taxes).[1]

Debt = \$8,000 billion (160 billion = interest at 2 per cent on \$8,000 billion).

Again I warn the reader—although it is obvious—that this is a fantastic debt figure. Yet on reasonable assumptions as to taxation, the burden of taxes levied for transfer purposes, the rate of interest, and income, we find the country might in 1980 be able (*not will*) to carry a debt of \$8,000 billion. (*This figure should not be quoted without the assumptions and reservations.*) *The writer is not proposing a debt of* \$8,000 *billion; nor is he suggesting that we can accumulate a debt of these proportions without serious effects on the economy. Many of the difficulties and obstacles were listed in his Postwar Economic Problems.* In particular, this calculation leaves out of account the sociological and political implications of a vast *rentier* class and the transitional inflationary dangers. For elaboration of these points, the reader is referred to *Postwar Economic Problems* and other pertinent parts of the present volume.

15.11. CONCLUSION. In the past 80 years, the gains of income have been large indeed. Advances in management, technology, and science might even accelerate the rate of gains; improved management, elimination of the losses from unemployment and from excessive movements into distributive and servicing trades might also help. Another favorable factor to be associated with deficit finance is the growth of income. Against all these favorable factors we should consider a declining rate of population growth and the limitation of natural resources.

This chapter also contains several studies of future income. All these studies yield the conclusion that if incomes rise at a rate even substantially less than in the last few generations no great fears need

[1] \$40 billion = taxes to finance nondebt charges.
\$80 billion = one-half of interest on debt. It is assumed that the tax burden is one-half of the taxes collected since the money is transferred to *rentiers*.

be felt concerning debt growth. Tax potential will rise with debt potential adequately to finance a growing debt. Of one thing we can be sure: the amount of the debt that *can* be financed will be much larger than our debt is actually likely to be after (say) 50 years of peace. These guesses as to income, taxes, and debt charges are not, however, the final word on debt potential. It is necessary to consider also the political and psychological aspects of a growing debt and certain transitional economic effects of a growing public debt.

Chapter XVI

Ownership of Debt and Distribution of the Burden

INTRODUCTION

With the growth of public debt, the value of claims on the flow of goods and on capital assets rises. The value of these claims rises not only because the public holds more securities, but also because the investments of banks, insurance companies, and even government trust funds increase in amount—these liquid claims in turn belong to the depositors of the banks and the insured. With the expansion of debt, national incomes rise and so does the outstanding value of liquid claims: currency, deposits, and securities. We are concerned, then, with who owns these liquid claims and who bears the burden of the expanding debt.

For our study of an expanding debt, the distribution of the debt is especially important as it gives some indication of where the burden of the public debt falls. We require knowledge not only of who pays the bill, *i.e.*, the taxes, but also of who receives the interest.

HISTORICAL DISTRIBUTION OF GOVERNMENT SECURITIES

Our knowledge for the period prior to World War II is limited, but we can nevertheless draw some useful conclusions from the facts available.

16.1. 1914–1939—FLUCTUATIONS IN HOLDINGS BY BANKS AND NONBANKS. At the outbreak of World War I, the total investment in securities held by all banks of the United States was $5.5 billion.[1] That sum included $829 million of federal securities held by the banks, which amounted to two-thirds of all federal securities outstanding at the time. It is of interest to compare the total investment of banks in *all* securities ($5.5 billion as noted above) with the $5.7 billion of securities outstanding for all governments in this country (federal, state, local, etc.) in 1913.[2]

[1] Board of Governors of the Federal Reserve System, *Banking and Monetary Statistics*, p. 18, 1943.

[2] Tax Foundation, *Facts and Figures on Government Finance*, p. 116, 1944.

From 1914 to 1919, the federal debt rose from 1.2 billion dollars to 25.5 billion dollars. In this period, however, the banks added only $5 billion to their holdings of federal securities, about 20 per cent of the net rise. Compare these figures with the rise of federal debt of $216 billion from June 30, 1940, to June 30, 1945,[1] of which federal reserve and commercial banks took $87.3 billion, or 40 per cent. *It is ironical that in World War* I, *an inflationary war, the purchase of securities by banks was on a much smaller absolute and relative scale than in World War* II, *a relatively noninflationary war.*[2]

From 1919 to 1929, the federal government reduced its debt by about $8½ billion.[3] The banks contracted their holdings of United States government securities by $300 million, while they expanded their investments in *all* securities by $5.4 billion.[4] *Perhaps this is ominous, giving some indication of what might happen in the future. When business conditions were favorable, the public deserted the federal bond market:* in the twenties, nonbanking investors almost exclusively accounted for the redemption of government securities. The banks, on the other hand, though they did not increase their holdings, did not contract them greatly; but their *other* investments rose from 18 to 21.5 per cent of deposits, while their federal securities declined from 17 to 10 per cent of deposits.[5]

In short, nonbanking lenders deserted the government bond market in part because the government repaid a large part of its loans. Banks, in a sense, also deserted the federal bond market. *Despite large rises in deposits, the absolute amount of federal issues outstanding held by banks changed little from* 1919 *to* 1929. This decline in the relative investments in government securities is associated with the large contraction of federal debt in that period. Had the banks purchased government securities in amounts adequate to maintain the 1919 ratio of federal issues to deposits, they would have had to purchase around $5 billion additional from the public. Since the public held only about $10 billion of Treasury issues, the purchases could only have been effected at a high price, *i.e.*, a low yield.

In the years 1929–1939, total debt outstanding, *public and private*, declined, a reduction of $22 billion by 1933 being followed by a rise of $10 billion from

[1] *Treas. Bull.*, April, 1946, p. 22.

[2] *Ibid.*, p. 50. *Cf.* the interesting statement by Secretary Vinson, in Hearings before Senate Committee on Banking and Currency, *Extension of the Emergency Price Control and Stabilization Acts of* 1942, *as Amended*, 1946, pp. 1583–1584. For fiscal years 1917–1919, he estimates that 18 per cent of the increase in the debt was financed by the *commercial* banks directly, and 10 per cent additional indirectly through loans. Similar figures for fiscal years 1941–1945 are put at 32 and 2 per cent, respectively.

[3] *Annual Report of the Secretary of the Treasury on the State of the Finances*, p. 713, 1944.

[4] Federal Reserve Board, *Banking and Monetary Statistics*, p. 18, 1943; note that these are the figures for *all* banks, while those for commercial banks only are slightly different. *Ibid.*, p. 19.

[5] Federal Reserve Board, *op. cit.*, p. 18. In 1919, the total of *all* debt (private and public) was estimated at $118.1 billion; in 1929, at $174.2 billion. (A. Slater, "United States Debt Pattern in War and Peace," *S.C.B.*, September, 1945, p. 12.) Banks' investments in all securities, it will be noted, declined from 35 per cent of all deposits in 1919 to 32 per cent in 1929.

1933 to 1939.[1] Federal debt rose by $23.3 billion, and the commercial banks added $10.8 billion to their holdings, thus accounting for about one-half of the new issues (net).[2] Despite a modest rise in state and local government debt, the banks' holdings of other securities declined by $1.5 billion, reflecting undoubtedly the contraction of $34 billion in private debts. Over the 20 years ending 1939, the banks had increased their investments in federal securities from $5.1 billion to $15.7 billion, or from about one-fifth to about two-fifths of the total federal debt outstanding.

From the experience of the interwar period, we may draw the following conclusions. In prosperity, the government repays debt held especially by nonbanking investors and the ratio of public securities to deposits tends to decline. In depression periods, the government debt grows and the banks' share of the public debt tends to rise.

16.2. WAR PERIOD—1939–1945: THE BANKS MAINTAIN THEIR SHARE IN WAR. In war, all groups put their savings primarily in government securities. The total federal debt rose from around $40 billion in 1939 to $260 billion at the war's end.

On the whole, the *relative* stake in the public debt of financial institutions (inclusive of government agencies and trust funds) declined: from 72½ per cent in 1939 to 65½ per cent in 1945. The most significant rise was for other corporations (6 to 11½ per cent).[3] In contrast to the 20 years of peace, the banks' share of government securities outstanding changed relatively little in the war years.

SOME INFORMATION ON DISTRIBUTION BY INCOME GROUPS

Available information on distribution of holdings of government securities is scanty and scattered. There is, however, some evidence that holdings by those with incomes of less than $5,000 are large—though the high-income groups probably increased their share in the war years. Let us glean the pertinent facts from what information is available.

16.3. SAVINGS BONDS. Issues outstanding on Sept. 30, 1945, amounted to $46.7 billion. Series A to D accounted for $3.6 billion; series E, $29.9 billion; series F, $2.7 billion; and series G, $10.6 billion. A substantial proportion of series A to D were undoubtedly in the possession of high-income groups, since part of these had a tax-exemption

[1] Slater, *op. cit.*, p. 12.

[2] *Treasury Report*, 1944, p. 713; Federal Reserve Board, *op. cit.*, p. 19.

[3] Material in this section: Distribution of public debt: *Treasury Bulletin.* Public debt, totals before war: Tax Foundation, *Facts and Figures of Government Finance*, p. 116, 1944; *Treasury Report*, 1944, pp. 626 *ff.* Bank investments in securities prior to war: Federal Reserve Board, *Banking and Monetary Statistics*, p. 19, 1943. Total debt, public and private: *S.C.B.*, July, 1944, p. 16; September, 1945, pp. 8 *ff.*

privilege. It may be assumed, however, that most of the E series were held by low-income groups.[1] In fiscal year 1943, 26.8 millions participated in pay-roll savings plans and purchased $4.1 billion bonds; in 1944, the respective figures were 27.6 millions and $5.5 billion of bonds. Purchases were, moreover, limited to $3,750 per individual per year.[2] Estimates by the Federal Reserve and by Dr. Wallich suggest also that these were held largely by low-income groups. The latter puts the holdings of series E by individuals with incomes of less than $5,000 at between 25 and 30 billion dollars.[3] A study of distribution of $130 billion of *liquid assets* held by individuals at the end of 1945 yields different results: the bottom (low) 50 per cent of spending units accounted for but 3 per cent of these assets.[4]

16.4. DISTRIBUTION BY TYPES OF HOLDERS. In general, the distribution on Aug. 31, 1945, was as indicated in Table 21.[5]

TABLE 21.—OWNERSHIP OF INTEREST-BEARING SECURITIES ISSUED OR GUARANTEED BY UNITED STATES GOVERNMENT
(In billions of dollars)

1. Banks	107
2. United States government agencies and trust funds	26
3. Insurance companies and savings banks	32
4. State and local governments	5
5. Individuals	60
6. Other corporations and associations	30
Total	260

SOURCE: *Treas. Bull.*, December, 1945, p. 48.

Any final statements of distribution must of course rest on an analysis of who owns the banks, the corporations, and the insurance companies. (We shall discuss ownership of bank deposits later in this chapter.) Undoubtedly, a substantial proportion of the funds in life-insurance companies, government agencies, trust funds, and savings banks belong to low-income groups. Corporations, however, largely belong to the high-income groups. In 1943, for example, corporations paid out dividends of $4.5 billion. Individuals with net income of

[1] *Treas. Bull.*, January, 1946, pp. 36–37.

[2] *Treas. Bull.*, *passim.*

[3] Board of Governors of Federal Reserve System, *Public Finance and Employment*, p. 89, 1945.

[4] *F.R.B.*, June, 1946, p. 574.

[5] Late in 1946, the total debt was once more $260 billion. Distribution had changed but not greatly. Portfolios of banks were reduced $7 billion; of corporations and associations, $6 billion. The main gains were government agencies and trust funds, $4–5 billion; insurance companies and savings banks, $5 billion; individuals, $3 billion. *Treas. Bull.*, February, 1947, p. 48.

$5,000 or more reported $2.2 billion of corporate dividends for tax purposes.[1] At this point we cannot draw any precise conclusions from these facts; but in view of the substantial stake held by low-income groups (especially in items 2-3 in Table 21), their holdings of public investments may be assumed to be significant. It is not possible to say from this information, however, that one-half is held by those with incomes exceeding $3,000, or $4,000, or $5,000.

But though the portfolios of federal securities held by low- and moderate-income groups are substantial, the proportion held by the low-income groups since the beginning of the war may well have declined nevertheless. Holdings by insurance companies, mutual savings banks, and United States government agencies and trust funds actually declined from 33½ per cent of the total in December, 1939, to 23 per cent in September, 1945.[2] An offset was undoubtedly the large rise accruing to low-income groups in the total held by individuals, though here the bad distribution of liquid assets revealed by the study quoted above is relevant. Participation by other corporations and associations rose, however, from 6 to 12 per cent.

16.5. INTEREST PAYMENTS SUGGEST LARGE HOLDINGS BY HIGH-INCOME GROUPS. Income-tax statistics, as they reveal interest received and interest paid out, throw further light on these matters. A *prewar* survey of the Twentieth Century Fund indicated (1) that individuals were creditors on balance; (2) that higher income groups received more in interest than they paid out; and (hence) we may assume that securities apparently gravitate to high-income groups.[3]

More recent figures on interest payments suggest a distribution more favorable to low-income groups. Preliminary returns for 1943 yield the following results:

1. Net income in excess of $5,000: total income = $17.3 billion, or roughly 11 per cent of net national income.
2. Federal securities held by individuals: average, 1943 = $32 billion.
3. Estimated interest charge = $640 million. (A 2 per cent rate is assumed.)
4. Interest received on government securities by those with incomes in excess of $5,000 = $88 million, or 14 per cent of $640 million.[4]

It is not to be concluded that these relatively high-income groups, however, account for only 14 per cent of the interest received by individuals on

[1] *Treas. Bull.*, August, 1945, p. A-39.
[2] *Treas. Bull.*, January, 1946, p. 48.
[3] The Twentieth Century Fund, *Debts and Recovery, 1929 to 1937*, Ch. 5, 1938.
[4] Figures adapted from *Treas. Bull.*, especially August, 1945, pp. A-36, A-38; and March, 1946, p. 50.

federal issues. It is necessary to allow for savings bonds on which interest was largely not paid currently. Total interest payments may then have been only about $300 million and the share accruing to those with incomes in excess of $5,000, about 30 per cent. For still another reason, the interest income earned by *low-income groups* seems large: low-income groups with large holdings of savings bonds accounted for a very large part of interest accrued but not paid out.[1]

Despite the relatively small proportion of income received by high-income groups, the available evidence suggests that high-income groups especially added to their liquid assets.[2] In 1941, for example, savings were negative (net) at incomes below around $2,000; at $6,000, they were $1,000; at $14,000, no less than $4,000.[3] In 1945, according to a survey already quoted (subject to a significant margin of error), the top 10 per cent of the spending units had 60 per cent of the cash deposits, and government securities and the bottom 50 per cent had only 3 per cent.[4]

16.6. DISTRIBUTION OF DEPOSITS. Since the banks at the end of 1945 held about 40 per cent of the federal government securities outstanding, the growth of deposits and their ownership must be examined. Unfortunately, the information is spotty and not always consistent. Since the reader doubtless by now must be bored with the many figures already presented in this unavoidably statistical chapter, the details concerning deposits are relegated to a note at the end of this chapter. The main, if tentative, conclusions to be drawn from these miscellaneous and admittedly incomplete data as follows:

1. Individuals account for about two-thirds of *all* deposits, and business for one-third. (The proportions are roughly reversed for demand deposits.)

2. During the war, business' share in deposits expanded more than that of individuals. Retention of large profits and the accumulation of liquid assets with growth of tax liabilities and the unavailability of nonliquid assets largely explain this increased stake of business in bank deposits.

3. Deposits are still concentrated largely in the big banks, and large accounts are still very important.

[1] Nonmarketable issues on June 30, 1943, amounted to $29 billion. If we allow for the $7.5 billion of Treasury notes undoubtedly largely held by corporations, for the interest currently taxed (at taxpayers option), the amounts of interest currently received (through redemptions) and amounts of E, F, and G Bonds held by institutions and corporations, then a rough guess would be that one-half of all issues held by individuals currently yielded interest to individuals.

[2] *B.L.S. Bull.* 822, *Family Spending and Saving in Wartime*, 1945; *F.R.B.*, June, 1946.

[3] *B.L.S. Bull.*, *op. cit.*, p. 36.

[4] *F R.B.*, June, 1946, p. 574.

4. There is some evidence, however, of large gains by small accounts and nonbusiness accounts. In fact, the largest rise in demand deposits during the war fell to personal accounts.[1]

5. On the whole, it may be concluded that more federal issues held by banks are in fact owned by individuals than by business, and to a large degree by wealthy individuals and big business; the latter's share, and that of small depositors, probably increased during the war.

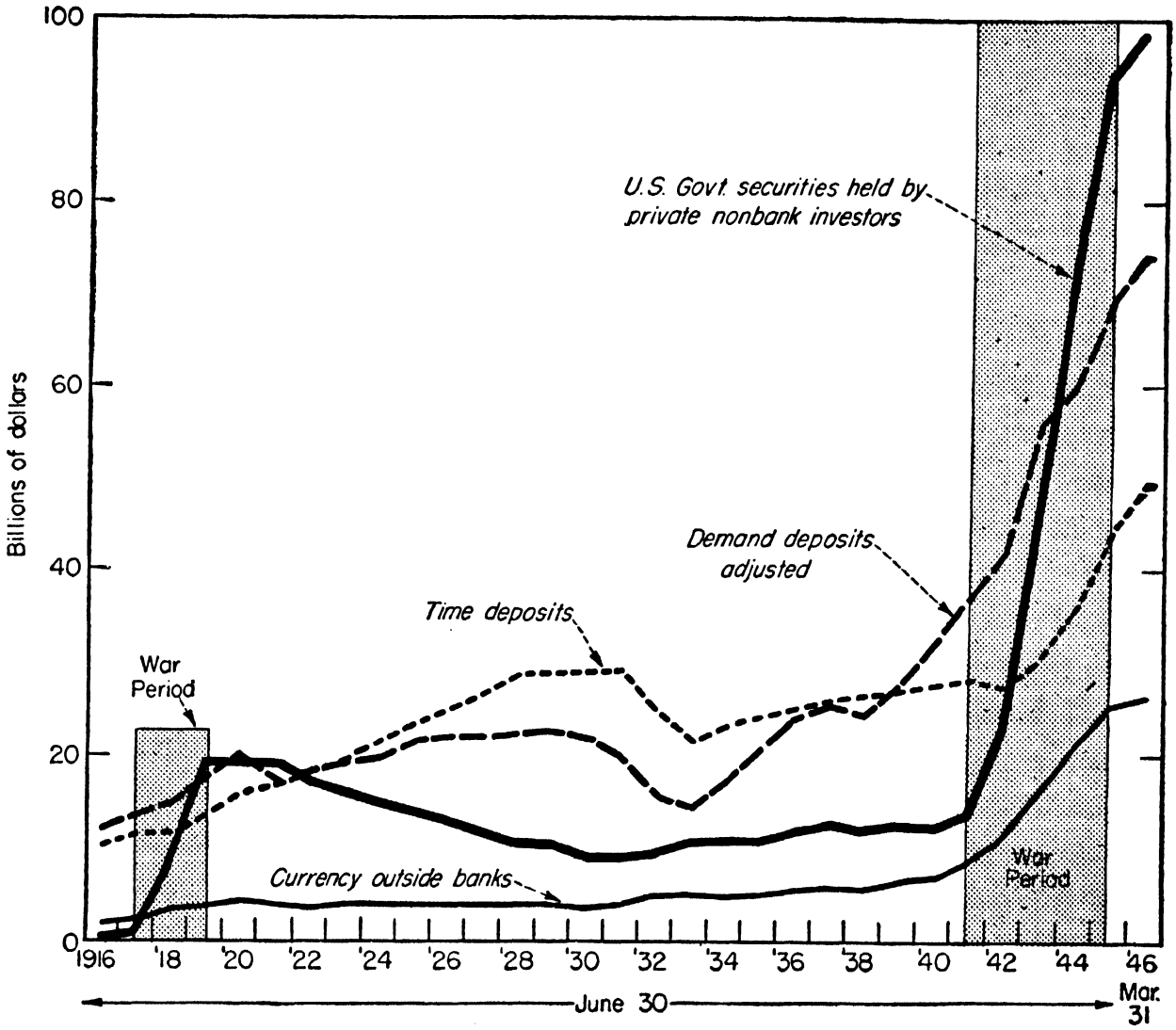


CHART 14.—Deposits of all banks, currency outside banks, and private nonbank holdings of United States government securities. (*Source: Survey of Current Business.*)

16.7. ALL LIQUID ASSETS—INVESTMENT IN GOVERNMENT SECURITIES AND OTHER LIQUID ASSETS BY BUSINESS AND INDIVIDUALS. An examination of the growth of liquid assets owned by individuals and business throws further light on the ownership of government securities.[2] The main outlines are given in Chart 14.

[1] H. P. Wald, "The Expanded Money Supply and Economic Activity," *S.C.B.*, May, 1946, p. 13.

[2] *F.R.B.*, February, 1946, p. 123.

1. The rise in liquid assets *belonging to individuals and business* has been strikingly large—from $65 billion at the end of 1939 to $225 billion at the end of 1945. In addition, liquid assets of government, foreigners, insurance companies, etc., were up from $22 billion in 1939 to $80 billion in 1944.[1] These assets are not strictly at the disposal of potential spenders in the same sense as the direct holdings of individuals and business. Yet, to a substantial degree, individuals may convert their share in these assets (*e.g.*, life insurance, social-security funds) into cash. *For our purpose, it is important to note that assets in these institutions, mainly cash and government securities, belong largely to the low- and moderate-income groups.*

Moreover, this rise of liquid assets by $160 billion (exclusive of the rise of $58 billion or more belonging to institutions) is bound to play a decisive influence in the future. Whereas in 1939 these liquid claims amounted to but $65 billion (or $88 billion inclusive of institutional holdings), they were up to $225 billion (or about $300 billion inclusive of institutional holdings) by the end of 1945. They are potential claims on the flow of goods and the existing wealth. *Before the war they amounted to less than one-third of the wealth and were but one and one-half times the national income—in* 1946 *they may well be three-quarters of our total wealth and twice the record income level of these years.*

2. The figures are especially significant in relation to public debt. *Large rises in currency and deposits will tend to reduce the pressure to dispose of public securities: it will be cheaper to dispose of existing balances which are large as compared with prewar—even allowing for price changes. Dangers of chaotic markets for public securities are thus to some extent reduced.* At the end of 1945, individuals and business held about 40 per cent of their liquid assets in United States government securities; business alone held 42½ per cent and individuals, 38 per cent. The public can use its large reserves of cash before having to resort to sales of public securities.

3. In the years 1939–1945, individuals and business invested additional liquid resources roughly as follows (*cf.* Chart 15): one-half in United States government securities, one-quarter in demand deposits, one-quarter in currency and time deposits.

These details concerning liquid assets are of some relevance for the study of the public debt. (1) They suggest that against the rise of public debt the public holds an equal amount of additional cash and deposits. The burden of the debt is reduced insofar as an increased value of other liquid assets are available out of which the required payments may be made—and this exclusive of any relief that might result from rising

[1] *Cf. Treas. Bull.*, April, 1946, pp. A-11 to A-15. The rise of all liquid assets (inclusive of institutional holdings) from 1940 to 1945 is put at $215 billion.

prices associated with the gain in liquid assets. (2) The over-all figures suggest that both business and individuals invested approximately one-half of their additional liquid assets in government securities. (3) Individuals accounted for almost two-thirds of the public securities held by individuals and business at the end of 1945, whereas business accounted for less than one-third. It is probably a fair presumption that securities held by individuals on the average belong to lower income groups than those held by business.

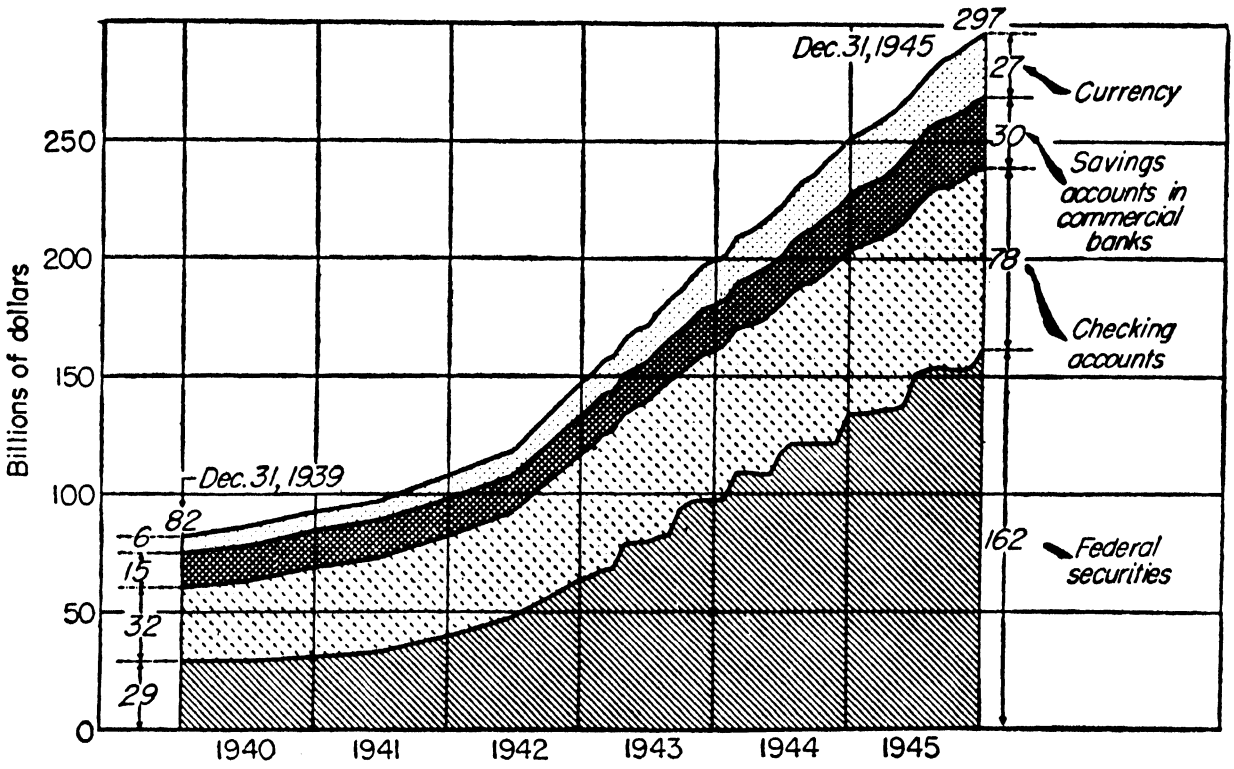


CHART 15.—Major liquid assets of nonbank investors. (*Source: U. S. Treasury Bulletin.*)

16.8. THE NET EFFECT OF INTEREST PAYMENTS ON SPENDING. Professor Shoup and Dr. Wallich made valuable studies of the problem of the burden and the economic effects of interest on the public debt.[1] In view of the limited information available, their studies are indeed more helpful than might have been anticipated. It is not necessary here to make a detailed examination of their estimates, for the studies can be examined by the reader. There are substantial differences in their approaches and in their estimates of taxes on federal securities held by each category of investor.

According to Prof. Shoup, only part of the interest payments are economically effective, for in part recipients hoard interest received or the interest accrues. He finds, for example, that in 1943 the annual interest charge was $2.8 billion; the economic ineffective interest charge (*e.g.*, interest receipts not paid out) was $700 million; taxes on the interest, $600 million;

[1] C. Shoup, "Federal Interest Charge in Implemental Aspects of Public Finance," *A.E.R. Supp.*, Part 2, June, 1944, especially pp. 51–71, and Federal Reserve System *Public Finance and Full Employment*, 1945, especially pp. 85–93.

and the annual interest charge available to influence economic action, $1.7 billion.[1] For 1946, the last variable is estimated at between 3.7 and 6.3 billion dollars.

Dr. Wallich's attack is along similar lines. He concludes that in 1944 the interest was $3.85 billion; taxes, $770 million; idle savings, $2.25 billion; and remaining in the income stream, $830 million. For 1948, interest is estimated at $5.7 billion and the income stream, at $1.8 billion.

In both these studies it is assumed that interest payments to trust funds, insurance companies, banks, etc., are not in general economically effective, *i.e.*, they are saved and do not enter into the income stream. Since taxes on interest are relatively small or nonexistent for these institutions, the use to which they put interest payments is especially important. Both Shoup and Wallich seem to assume that, when the government transfers, say, $1 billion of deposits from taxpayers to the banks or insurance companies, the financial institutions do not put these deposits to use. This assumption is not justified under all conditions. For example, cash transferred in 1948 to the social security funds on account of interest may well be used to finance unemployment compensation and other programs. Actually, the net effect on spending may be greater than if the debt held by the social-security funds were nonexistent. The recipients of social-security funds may spend more than those who were taxed to cover the interest.[2]

16.9. CONCLUSION. The banks increased their investments in public securities in wartime, and in World War I they also increased their relative share. After World War I, large amounts of debt were repaid: nonbanking investors deserted the market, and government securities occupied a smaller part of the bank portfolios in 1929 than in 1920.

Evidence suggests that government securities are widely held: the large amount of E or savings bonds outstanding; the small amount of interest received on government securities by those with incomes of $5,000 or over; the large rise in absolute amounts held by government trust funds, savings banks, and life-insurance companies. That individuals account for about two-thirds of government securities held by individuals and business suggests at least that the distribution is less concentrated than if the proportions between business and individuals were reversed. The increased share of federal issues held by corpora-

[1] *Cf.* Shoup, *op. cit.*, p. 59. The figure actually given is $1.7 billion. Yet the arithmetic (2.8 − 0.7 − 0.6) suggests an answer of 1.5.

[2] Dr. Wallich also estimates the amount of interest payments that are transformed into idle savings, the effects of taxes to finance interest on the amount of idle savings; and he estimates, by income classes, the debt burden on account of interest, and the amount of E bonds required to be held to yield a corresponding amount of income. For the last, heroic assumptions are required.

tions and the reduced share held by savings institutions of all kinds suggest, on the other hand, a changing distribution in favor of large-income groups. There also is probably an increased concentration of deposits—and banks account for 40 per cent of government debt outstanding. On balance, a most provisional conclusion is that ownership has become more diffused, that the high-income groups have probably *at least* maintained their share, and that holdings by members of low-income groups are generally small in amount.

Liquid assets are composed in equal proportions of (1) government securities and (2) cash and deposits. Both business and individuals put approximately one-half of their increased liquid assets from 1939 to 1945 into public securities. A rise of about $80 billion in cash and deposits is of relevance, because the danger of taxation to finance the public debt is reduced insofar as the economy is more liquid.

Finally, the distribution of ownership is considered in the light of tax burdens imposed on each group of investors and in the light of the relation of interest received by each group and the amounts spent. The conclusion is that taxes may reduce gross interest by 20 per cent and that perhaps 20 per cent of the amount received will not be put back into the money stream.

It would be helpful if we knew what the incomes, the tax burden, and the tax structure would be at lower levels of debt. Then we might be able to estimate the additional tax burden for each group associated with increased debt. (It is not assumed, however, that tax structure changes with falling debt in the same manner as it does with rising debt.)

NOTE: DEPOSITS—GROWTH AND OWNERSHIP

I. Deposits—Distribution of Ownership—End of 1945—Percentage

	All deposits	Demand deposits
1. Personal holdings	62	37
2. Corporations	26	45
3. Unincorporated business	12	18

II. Rise of Deposits

A. All deposits—rise, December, 1939 to December, 1945.

1. Business = $26 billion, or by 174 per cent
2. Individuals = $36 billion, or by 112 per cent

B. Demand deposits[1]—rise, December, 1939 to December, 1945
1. Business = $25 billion, or 193 per cent
2. Individuals = $16 billion or 195 per cent

C. Individual demand deposits—rise, year ending June 30, 1943
1. Entrepreneurs = 70 per cent
2. Farmers = 70 per cent
3. Others = 35 per cent

SOURCE: See references at end of note.

Apparently business' stake in deposits and hence in banks' investments increased more, relatively, than the stake of individuals. (*A* and *C*—but the evidence is not clear. *Cf.* preceding footnote.) The *relatively* larger gain for individuals in demand deposits (*B*) is not easily reconciled with the fact that out of the *total accretions of liquid assets* individuals added to their currency and time deposits much more relatively than business did and less to demand deposits than business did. Perhaps the explanation is that for individuals the relatively small proportion of additional liquid assets invested in deposits is a higher relative gain from the base than for business—on the grounds that before the war the amount of demand deposits held by individuals was relatively small.

Too much is not known about the size distribution of deposits. We take the following from the Federal Reserve Board:

1. More than one-quarter of all demand deposits in July, 1944, was lodged in 16 banks, each with deposits in excess of $500 million.

2. Two-thirds of the banks in the country with deposits of less than one million dollars accounted for only one-twelfth of the total demand deposits.

3. Approximately two-fifths of the dollar volume of deposits were in accounts of $100,000 and over, and a slightly larger aggregate was in accounts of $25,000 and less.

4. Three-fifths of all corporate deposits were in banks with deposits in excess of $100 million, and nearly two-thirds of all corporate deposits were in accounts of $100,000 or more; whereas nearly three-fifths of all personal deposits were in banks with deposits of $10 million or less, and more than four-fifths of personal deposits in accounts of $25,000 or less. (Figures relate to July 31, 1944.)

5. In the very large banks, more than three-fourths of demand deposits were owned by business, mostly corporations, and less than 14 per cent by individuals. In the smallest banks, individuals accounted for 70 per cent of all deposits.[2]

6. A sample survey for June 30, 1943, showed that 34 per cent of individuals' demand deposits were in accounts of less than $5,000 and 33½ per

[1] Net changes, December, 1941, to July, 1945, yield different results. The rise for domestic business was 71 per cent; for personal deposits, 140 per cent. *F.R.B.*, November, 1945, p. 1093.

[2] *Cf.* Chart 16 which covers a later period and indicates large concentration of corporate demand deposits in large banks; but the stake of corporations apparently declined in the 18 months ending January, 1946.

cent in accounts in excess of $25,000. Owners of unincorporated business accounted for 45½ per cent of individual demand deposits.

7. In the year ending June 30, 1943, the percentage rise in individual demand deposits was generally larger, the smaller the account.

We may conclude from this array of facts that there is still a considerable concentration of deposits in the possession of large-income groups and corporations, that business probably increased its proportion of total deposits in the course of the war, and that the percentage rise of small individual accounts has been larger than for large individual accounts.

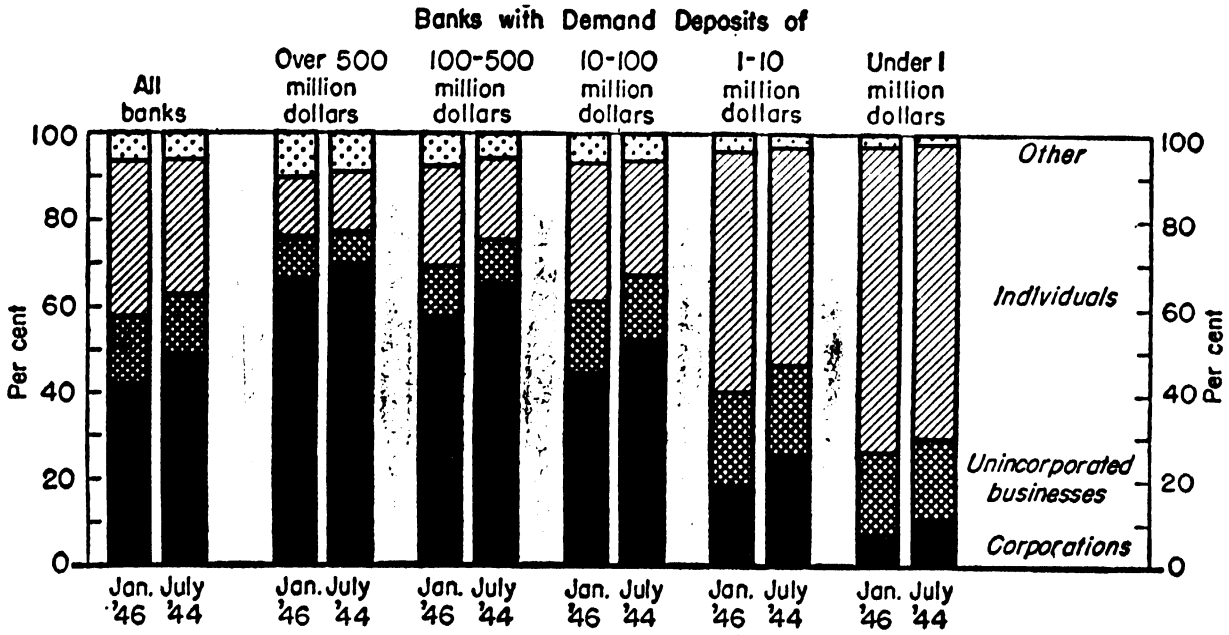


CHART 16.—Estimated distribution of ownership of demand deposits by size of bank. (*Source: Federal Reserve Bulletin.*)

In general, some improvement in the savings pattern during the war was to be expected. Incomes rose especially for farmers and labor and corporations. Since corporations withheld a large proportion of their profits, stabilizing annual dividends at around $4 billion, it is easy to understand the gains in deposits and liquid assets of corporations. Rents and interest, on the other hand, rose modestly. Regional distribution of the rise of income and deposits also suggests that the rise of savings and deposits probably has not been concentrated in high-income groups to the same extent as in the past. The West and South especially profited from rising war production, military training, and improved farm prices and output. From the end of 1939 to the end of 1944, the rise of demand deposits (adjusted) for the country as a whole was 124 per cent, the largest rise being in the regional district of San Francisco (248 per cent), Atlanta (211 per cent), Dallas (202 per cent), and Richmond (185 per cent). The rises were smaller where wealth and income are largely concentrated; the New York, Boston, and Philadelphia districts experienced increases of but 71, 90, and 101 per cent, respectively.[1]

[1] Material in this note from *F.R.B.*, November, 1944, pp. 1069–1076; February, 1945, pp. 101–111; April, 1945, pp. 331–334; June, 1945, p. 533; February, 1946, p 123, *S.C.B.*, June, 1944, pp. 14–21.

Part VI

TAXATION AND THE PUBLIC DEBT

INTRODUCTION

Public debt is financed out of tax revenues. It is therefore necessary to consider not only the broad issues we examined in Part V—the burden of the debt and the relation of wealth and income to the size of the public debt—but also our nation's tax structure, the distribution of tax burden, and the tax potential (the latter we examined in Part V). Part VI is really a sequel to Part IV, where we showed that the limit on public debt is set largely by national income and that, if national income rises at a rate even substantially less than in the last 50 to 100 years, we need have no great fears of a public debt that grows at what now appears a reasonable rate.

Since space does not permit a comprehensive discussion of taxation, three fundamental problems most pertinent to our study of public debt are selected for discussion here. I limit myself to three chapters, the first dealing with tax capacity, the second with the tax system and its effects, and the third with the problem of tax incidence, *i.e.*, who pays the taxes.

Our procedure is as follows: (1) We have to measure the tax burden—what the government is prepared to impose and the public to accept. Then we can estimate expenditures of the government (other than for servicing debt), the rate of interest, and the debt potential. (2) We have to make certain assumptions concerning the kinds of a tax system we shall have. Our tax system will determine in no small part the net income of the country and the tax potential.

Chapter XVII

Tax Capacity and Debt Potential

KINDS OF EXPENDITURES—GENERAL CONSIDERATIONS

17.1. NATURE OF EXPENDITURE IN RELATION TO TAX CAPACITY. Tax capacity should not be treated independently of the object and nature of public expenditures. Although taxes are never exactly popular, the public acquiesces more or less according to the nature of the tax system and the type of expenditures. *It is easier to raise funds if the public approves the purposes of the expenditure; if the expenditures of this revenue contribute toward a rise of national income; if they do not contribute to the consumption of economic resources at the expense of private industry; if taxes are transfer payments; if the benefits of the expenditures are clearly discernible; if the tax system is generally considered just.*[1]

INCREASING IMPORTANCE OF EXPENDITURES FOR SOCIAL WELFARE, INTEREST, ETC.

17.2. TAXPAYERS' ATTITUDE TOWARD THE RISE OF EXPENDITURES FOR SOCIAL WELFARE. *In recent years, governments have tended to increase their relative expenditures for social welfare (exclusive of education) and interest and to reduce their relative expenditures for education and highways*—as evidenced in Table 22. And the trend is toward higher taxation of high-income groups to whom, on the whole, taxation for financing public works, veterans, social welfare, etc., is not so acceptable as taxation for financing education, police protection, health, etc.

In the future, the peacetime expenditures on military, veterans, and interest will become of increasing importance—particularly expenditures on interest.[2] The next generation may well be confronted with interest payments

[1] *Cf.* Seymour E. Harris, *Economics of Social Security*, pp. 283–441, 1941; and H. A. Silverman, *Taxation: Its Incidence and Effects*, pp. 33–41, 1931.

[2] For fiscal year 1947, occupation, demobilization, and defense account for 42 per cent of anticipated expenditures, and the "aftermath of war" for 30 per cent additional. *The Budget*, 1947, p. XLVIII. For 1948, President Truman anticipated that interest, refunds, national defense, international affairs, and veterans would absorb almost four-fifths of the total budget. *The Budget*, 1948, p. M-8.

of between 8 and 10 billion dollars out of a total budget of 35 to 40 billion dollars (for all governments). During the war period, however, the ratio of expenditures on interest to all expenditures declined—the explanation being the vast military expenditures. Charts 17 and 18 reveal both the increased significance of military expenditures, the reduced relative importance of non-war activities, and the anticipated rise in absolute expenditures for activities related to war.

TABLE 22.—GOVERNMENT EXPENDITURES, IMPORTANT CATEGORIES, 1902–1957
(Various Years)
(Percentage of total)
All Governments

	1902	1913	1929	1937
Highways and education	33.1	33.8	37.7	23.6
Social welfare	12.1	11.7	11.6	28.7

Federal Government

	1915	1925	1939	1947–1957 (estimated)
General government and regulation of the economy	19.8	14.0	13.4	5
Public works	12.4	7.3	23.2	7
Social welfare	3.8	1.6	33.3	29
Interest payments	3.2	33.4	11.5	24
Veterans	24.6	23.8	6.2	12
Military	36.3	20.0	12.4	24

SOURCE: Adapted from S. Kuznets, "National Income and Taxable Capacity," *A.E.A. Proc.*, 1942, p. 68. Last column: adapted from W. L. Crum. "Postwar Federal Expenditures and Their Implication for Tax Policy," *A.E.A Proc.*, 1945, pp. 333–335. For 1947–1957, agricultural aids, foreign relief, rehabilitation and investment, social security, subsidies, etc., are included in social welfare.

All groups of taxpayers view with disfavor taxes levied to finance public debts: the *rentiers* because they are deprived of part of the interest to which they consider themselves entitled, the masses because they resent taxation to support the *rentiers*. If we assume fantastic figures for interest payments, say 40 to 80 billion dollars, then these considerations gain increasing weight. It is to be reemphasized that these figures, however, are entirely hypothetical and must not be taken literally.

TRANSFER EXPENDITURES

17.3. TRANSFER EXPENDITURES DO NOT USE UP RESOURCES. Government expenditures are of two types: transfer expenditures and non-transfer expenditures. The difference is that transfer expenditures involve no using up of resources at the expense of the private economy.

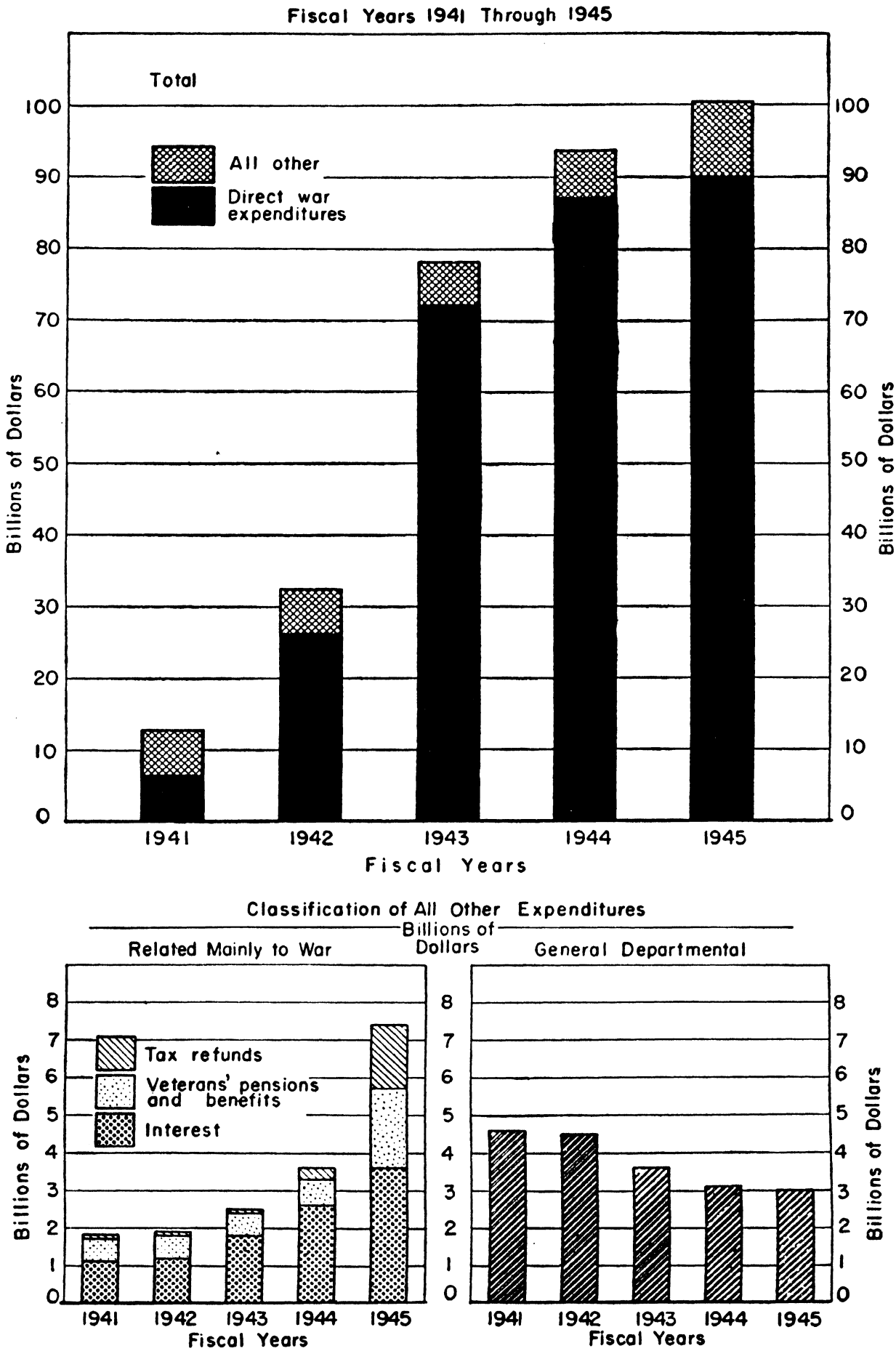


CHART 17.—Expenditures classified by major purposes. (*Source: Report of the Secretary of the Treasury*, 1945.)

The point to be underlined is that expenditures should be differentiated: those which do not involve the using up of resources or diversion from potential private use from those which do; and the former should not be so unpopular with the taxpayers as nontransfer expenditures which do use up these resources. In truth, these transfer payments should properly be deducted from government contributions to spending, and not be deducted from amounts spent privately.

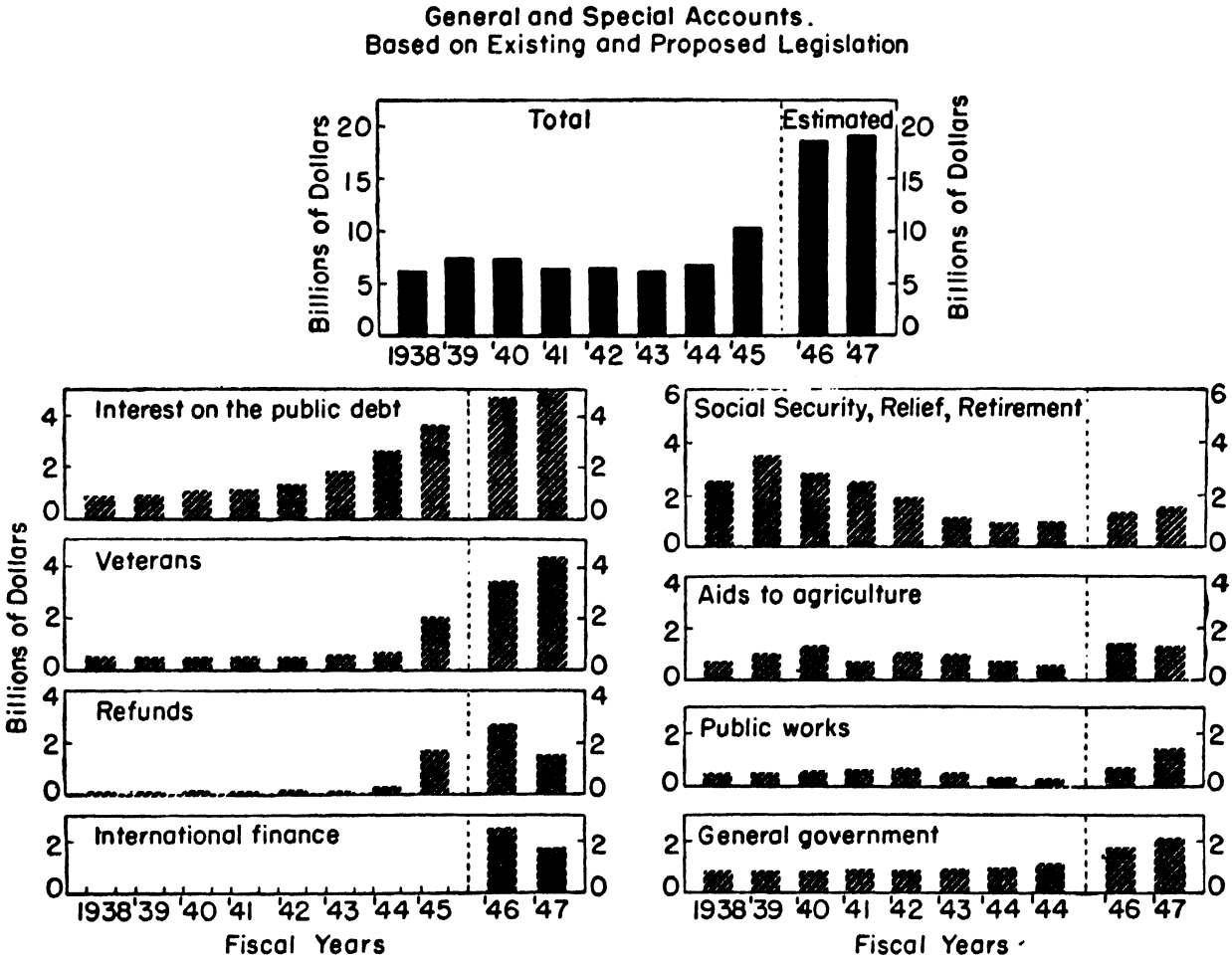


CHART 18.—Expenditures for other than national defense. (*Source: The Budget*, 1947.)

Dr. Kuznets classifies as transfer expenditures the following: social welfare, interest payments, veterans' pensions. They accounted for 29.4 per cent of expenditures of all governments in 1902 and 42.4 per cent in 1937; these and military and *other* government expenditures, for 31.6 per cent of federal expenditures in 1915 and 51 per cent in 1939.[1] For the years 1947–1957 the writer estimates transfer expenditures at between 50 and 60 per cent. (All items do not, of course, lend themselves to precise classification.)

[1] Kuznets, *op. cit.*, p. 68.

INCOME-INDUCING EXPENDITURES

17.4. THE FAVORABLE EFFECTS OF EXPENDITURES UPON INCOMES SHOULD NOT BE LEFT OUT OF ACCOUNT. We saw in the preceding section that some expenditures use up resources and others do not, the resources to some extent being merely transferred. Expenditures of different categories may have different effects upon national income, also. Some expenditures add to national income—they contribute to the employment of resources that otherwise would have been unemployed. Others are transfers—income is shifted from A to B, *e.g.*, from taxes to finance interest. The effects of public expenditures on income have been discussed elsewhere in this volume.[1] *Here it need be noted only that in recent years, and in the anticipated postwar, income-inducing expenditures will be of considerable importance.* A dollar of taxes levied in order to put unemployed resources to work, with the result that two dollars of income are created, will be more popular and more acceptable to the public than a dollar of taxes which reduces spending in the private sector of the economy.[2]

BURDEN OF TAXES

17.5. TAXES IN RELATION TO INCOME—PAST AND PRESENT. So far we have discussed the nature of public expenditures, the dichotomy of the transfer and nontransfer expenditures, and their repercussions on income. Tax capacity is determined in no small part by the nature of the expenditures; and any effects upon income are important, because taxes are for the most part ultimately paid out of income. We turn then to the relation of taxes and income.

From what has been said, it is clear that tax burden or tax capacity is not merely a matter of the ratio of taxes to income. Yet this ratio is of some significance. In Table 23, for example, some ratios are listed for various years.[3]

In the 70 years preceding the depression of 1930, federal taxes accounted roughly for about one-third of all taxes. (The ratio was high during and immediately after major war periods.) In the depression, however, the impor-

[1] *Cf.* Ch. VIII.

[2] *Cf.* the budget presented by W. L. Crum in "Postwar Federal Expenditures and Their Implications for Tax Policy," *A.E.A. Proc.*, 1945, pp. 334–336.

[3] Senator Taft at Congressional Hearings in October, 1945, implied that taxes beyond 25 per cent of national income might be dangerous. Secretary of the Treasury Vinson refused to put an upper limit. *Cf.* Hearings, Senate Finance Committee, *Revenue Act of* 1945, pp. 28–29.

tance of federal taxes began to increase and has continued to do so; they may well account for close to 75 per cent of all taxes in the early postwar.

In 1860 or even in 1913, one could not have believed it possible, or even probable, that taxes by 1938 would account for 23 per cent of income, by 1944–1945 for about 33 per cent, and in the immediate postwar for close to 30 per cent—and the last on favorable assumptions as to income—*or that the tax burden would rise from* $166 *million in* 1860 *to* $2.26 *billion in* 1913 *and about*

TABLE 23.—PERCENTAGE OF TAX COLLECTIONS TO NATIONAL INCOME

	Federal	State and local	Total
1860	1.4	2.9	4.3
1902	2.2	3.6	5.8
1913	1.9	4.6	6.5
1928	4.1	7.5	11.6
1938	9.3	13.5	22.7
1944 *	27	6	33
1947–1957 †	20	8	28

SOURCE: Adapted from S. Kuznets, "National Income and Taxable Capacity," *A.E.A. Proc.*, 1942, p. 63.

* 1944—Writer's estimates.

† 1947–1957—Writer's projections. (National income is estimated at $140 billion, federal taxes at $28 billion, and state and local taxes at $11 billion.)

$53 *billion in* 1944—*a rise of thirteen times in* 53 *years, and in the following* 31 *years, a further rise of twenty-three times. Expansion of government functions, rise of national income, improvement of the tax structure, and costly wars—these are the main explanations of the spectacular rise.* As income rises, government can exact an increasing percentage of it without necessarily entailing an increasing sacrifice on the taxpayer.

In this connection, Colin Clark presents an interesting survey based on the interwar experience of five European countries and Japan. He concludes that once taxation exceeds 25 per cent of the national income the pressure for debasement of the currency becomes very great: at this critical level, the value of the currency will begin to fall. But this approach is too general. Clearly the critical ratio depends on the nature of the tax system, the level of income, and other factors mentioned in this chapter.[1] With the much more modern tax system in operation in the United States today, with the large transfer expenditures, and with the high level of income, surely the critical limits suggested by Clark would not be applicable to postwar America.

TAX AND DEBT POTENTIAL

17.6. A SUMMARY OF A STUDY ON POTENTIALS IN 1947, 1957, AND 1977. Debt potential is related especially to gross national product, to tax potential, to the charges on government revenues other than

[1] C. Clark, "Public Finance and Changes in the Value of Money," *E.J.*, December, 1945, pp. 371–389, especially pp. 375–385.

for debt financing, and, finally, to the rate of interest and prices. On our assumptions (and at 1945 prices) the country in 1957 could carry a public debt of 767, 1,150, 2,300 billion dollars at 3, 2, and 1 per cent rate of interest, respectively; and 1,100, 1,650, and 3,300 billion dollars in 1977, again at 3, 2, and 1 per cent rates of interest, respectively.

In a note at the end of this chapter the writer makes some estimates—or, if the reader will, informed guesses—on the debt potential of this country in later years, notably in the years 1947, 1957, and 1977. These estimates are based on certain assumptions that should be clearly understood; the assumptions also are discussed in some detail in the note at the end of this chapter.

Our assumptions, far from being unreasonable, are in fact conservative. (*My calculations leave out of account, of course, the political and sociological issues raised by the growing rentier class and the transitional effects of the growth of debt, which are treated elsewhere in this volume.*[1] We assume, moreover, nonrepayment of debt—a problem also reserved for separate treatment.)[2] A GNP of $290 billion for 1977 is much smaller than the country's potential and, on the basis of past experience, is extremely low. Total taxes for the year 1977, minus transfer items, are estimated at but 22 per cent of net national income. At a net national income of $230 billion, tax potential would be $108 billion, or almost one-half of net national income.

This percentage, however, is not the appropriate one. A fair comparison would involve the following corrections:

	Billions of dollars	
1.	230	Net national income
Add	33	Interest on debt
	263	Relevant income
2.	108	Taxes
Deduct	32	Taxes not part of *net* national income
	76	
Deduct	19	Transfer payments are at least one-half and each dollar levied for transfers is
	57	assumed to be one-half as burdensome as other taxes.

3. Taxes (57) are 22 per cent of income (263)

These results are obtained, it should be noted, on rather moderate estimates of GNP and generous estimates of public expenditures for nondebt purposes.

[1] *Cf.* Ch. I and Part II.
[2] *Cf.* Ch. XXIII.

In many respects the writer's approach is more conservative than Dr. Kuznets', which is discussed in the note at the end of this chapter. In order to estimate resources that might be made available to government, Dr. Kuznets deducts only amounts required to cover minimum consumption and capital requirements. In the writer's calculations, the consumption and savings consistent with the GNP assumed are calculated—minimum standards are not assumed as in the discussion by Kuznets.

17.7. CONCLUSION. Perhaps the most important conclusion to be drawn from our investigation of tax capacity and debt potential is that there should be much untapped tax capacity in the next 30 years.[1] This conclusion is based on conservative projections of income: the government tax bill may rise substantially during that period. Even though allowing the public to consume the greater portion of these gains, the government may still be able to increase taxes by a substantial amount. Though the rise of taxes will be partly at the expense of consumption, we assume that the additional taxation will impinge especially upon savings. It is possible then to countenance very large rises in expenditures (exclusive of interest payments) in the next 30 years and then to scale down the rise as the interest charge increases. Thus, although projections of both tax potential and debt potential for this period may seem oversanguine, we must remember that the lower the rate of interest, the greater the debt potential. At these high levels of income, the country will be prepared to pay high taxes; for there will still remain to the taxpayer an income much higher than before the war. That a large part of the taxes will be for transfer payments, and hence will not involve exhaustion of resources, suggests a burden smaller than indicated by the tax bill; and let us stress the importance of income-inducing expenditures. Taxpayers, however, will not be disposed to pay as large taxes to support the *rentier* class as to pay for what they may consider more essential programs.

NOTE

Tax Potential and Debt Potential, 1947, 1957, *and* 1977.—A method of approach to debt potential which may prove helpful is illustrated in Table 24. We list national income for 1939 and estimate it for 1947, 1957, and 1977. We then derive consumption, savings, taxes, expenditures other than for debt servicing, and resources available for debt servicing, etc., for later years. Although the results are necessarily crude, they are

[1] *Cf.* note that follows.

nevertheless useful, suggesting as they do the limits of debt potential. A discussion of the variables, assumptions, etc., in Table 24 will help to clarify the table.

TABLE 24.—DEBT POTENTIAL
(*In billions of dollars*)

	1939	1947	1957	1977
1. Gross national product (GNP)	89	185	220	290
2. Net national income	71	145	175	230
3. Consumption expenditures	62	110	120	155
4. Available for savings (but subject to personal taxes) (2 minus 3)	9	35	55	75
5. Direct personal taxes	3	20	30	45
6. Taxes out of GNP, not included in Net Income	?	20	24	32
7. Indirect taxation	12	22	24	31
8. Total tax potential (5 plus 6 plus 7)	..	62	78	108
9. Individual savings after personal taxes (4 minus 5)	6	15	25	30
10. Charges on taxes—exclusive of debt interest	..	35	55	75
11. Balance available for interest on debt (8 minus 10)	..	27	23	33
12. Debt potential: 3 per cent rate	..	900	767	1,100
13. Debt potential: 2 per cent	..	1,350	1,150	1,650
14. Debt potential: 1 per cent	..	2,700	2,300	3,300

SOURCE: 1939—*S.C.B.*; other years are estimates or projections.

NOTES TO TABLE 24

1. Table 24 covers the years 1939, 1947 (an early postwar year), 1957, and 1977.
2. Prices—1939 at 1939 prices; all others at 1945 prices.
3. Variables.

Line 1. *Gross National Product* (GNP). This covers the annual gross product inclusive of government expenditure for goods and services and output available for private use (capital and consumption).

The 1947, total GNP is assumed to be the amount that will yield, not full employment, but between 4 and 5 millions unemployed.[1] This amount of unemployment is assumed throughout.

In Table 24 GNP for the years 1957 and 1977 is assumed to expand considerably less than it did in the past 65 years. For 1947 to 1957, the increase is assumed at less than 20 per cent—or less than 2 per cent compounded. (From 1879 to 1929 the rise was 3½ per cent compounded.) For the years 1957 to 1977, the assumed rise in GNP is but 32 per cent, or 1.6 per cent per year (and even less if compounded). This makes allowance for the slower rate of population increase than in the preceding years. It is evident that these are conservative assumptions.

Line 2: *Net National Income.* Derived from GNP—roughly four-fifths of GNP = NNI.

Line 3: *Expenditures on Consumption.* Our problem here is to estimate the minimum consumption compatible with the assumed growth of income. Part of income that is not consumed will be saved, and part will be taxed away.

[1] *Cf.* E. Hagen, "Postwar Output in the United States at Full Employment," *R.E.S.*, May, 1945, pp. 45–59.

The writer assumes here that the public will use at least one-half of any rise of income for consumption purposes. For 1947, however, consumption is estimated at the 1939 level + one-half the rise of income + $10 billion to cover pent-up demand (consumption is estimated thus for that year, 1947, alone; for 1957 and 1977 the base for 1947 remains $100 billion). The estimate for 1957 is increased by 5 per cent and that of 1977 by 10 per cent to allow for the rise of population, the result being, of course, that substantially more than one-half of the rising income goes for consumption. This may seem like a modest estimate of the marginal rate of consumption. In 1939–1941, however, when income rose by $26 billion, only 42 per cent of the rise was spent for consumption, though controls and serious scarcities were not as yet a serious deterrent. In 1941–1944, income rose by $65 billion and consumption by $25 billion, or 38 per cent. But then, of course, unavailability of goods, pressures to save, and controls contributed to the low marginal rate of consumption.

Yet for purposes in hand, 50 to 60 per cent is an adequate rate of marginal consumption for the following reasons. (1) Incomes will be much higher than in prewar, with increasing tendencies to save. (2) Although the public will cut consumption (and savings) in response to increased demands for financing the public debt, actually the adverse effects on spending and output of a given amount of taxation which is raised to finance the debt, will not be so great as taxes, raised, for example, to finance a war. This rise of taxes will, however, undoubtedly reduce consumption to some extent. (3) In earlier periods the large gains of consumption relative to incremental gains of income are to be associated in no small part with a rapidly rising population. On medium estimates of fertility the increase of population in the next 30 years will be about one-third that of the 30 years preceding World War II. Against these factors tending to reduce the ratio of increase of consumption to the increase of income is to be put any long-run upward tendency of the marginal propensity to consume.

Line 4: *Net Savings of Individuals*, and Line 9: *Net Savings of Individuals after Personal Taxes.* Net savings of individuals are derived as a residual from national income—after deducting both consumption expenditures and direct personal taxes. We assume that the ratio of savings will be reduced as a result of the heavy taxes required. Savings will rise with rising incomes, but not so much as they would have in the absence of a growing tax burden. Over a long period before the war, they averaged around 10 per cent of national income.[1] But incomes were much lower than those anticipated for the future. In 1939, savings were roughly 10 per cent of national income; in 1941, 15 per cent; and in 1944, 25 per cent. Savings were high in the latter year both because of the unavailability of goods and because consumption responds slowly to rapidly rising incomes. In 1947, consumption will be relatively free, taxes heavy; and substantial dissaving is assumed. *Net* individual savings are, therefore, put at but 10 per cent of net national income in 1947, 14 per cent in 1957, and 13 per cent in 1977. (Line 9) In the last mentioned period, 1957–1977, incomes are estimated as higher than in 1947, and the percentage of savings should therefore increase relative to 1957; but the rising public debt requires more taxes also—with adverse effects on savings. And with time, consumption should be better adjusted to rising incomes.

Lines 5 to 8: *Taxes.* Three categories of taxes are (and should be) distinguished in Table 24.

Line 5: *Personal Direct Taxes.* These amounted to around $20 billion in 1944. In each year, they equal the difference between net savings (individual) before personal taxes and net savings (individual). For 1947, they amount to 13 per cent of net national income; for

[1] *Cf.*, however, W. S. Woytinsky, "Relationship between Consumers' Expenditures, Savings, and Disposable Incomes," *R.E.S.*, February, 1946, p. 6.

1957, 17 per cent; and for 1977, almost 20 per cent. These taxes are not very heavy, particularly at the high levels of incomes assumed.

Line 6: *Indirect Taxes.* We estimate these at 20 per cent of consumption expenditures —a figure not far from prewar levels. These are included in consumption expenditures.

Line 7: *Also to be included are the important taxes that are part of gross national income but not part of net national income.* They are especially corporation income and excess profits taxes. In the fiscal year 1945, they amounted roughly to $17 billion. We might add several billions for other taxes not included in net national income. The total for 1947 is put then at $20 billion; and for 1957 and 1977, they are estimated at the same percentages of gross national income as in 1947. This stabilization of the percentage of these taxes to a rising national income is equivalent to a large relative reduction as compared with their wartime level.

Line 10: *Charges on Taxes—Exclusive of Debt Interest.* Before we can arrive at the figure for resources available to finance the public debt, we have to subtract taxes required for all other charges, *i.e.*, for all charges other than interest. The figure for 1947 is based largely on current allocations of expenditures. For 1957, we assume that these other charges constitute 31 per cent of net national income as compared with almost one-quarter in 1947. With the rise of income, these charges have tended to absorb an increasing percentage of national income; but because of the increasing burden of public debt, we assume that in 1977 the percentage will remain close to that for 1957—actually the 1977 figure is 32. These other charges are estimated rather liberally nevertheless—$35 billion in 1947 and $75 billion in 1977. This rise in other charges of $40 billion, or 114 per cent, in 30 years is to be compared with the rise in same of $13 billion, or around 600 per cent, in the 28 years, 1910–1938—the latter rise reflecting the effects of both World War I and the depression.

Line 11: *Balance available to finance interest charges* is given by the differences between tax potential, and resources to cover charges other than interest.

Lines 12–14: *Debt Potential.* Debt potential can be estimated on the basis of interest rates of 3, 2, and 1 per cent—we consider the 2 per cent rate as the probable one, the respective figures for 1947, 1957, and 1977 then being 1,350, 1,150, and 1,650 billion dollars.

In summary, debt potential is surprisingly high, its exact amount depending on the rate of interest, income, the tax structure, and the demands on government for nondebt purposes.[1,2]

[1] *Cf.* Kuznets, *op. cit.*, especially pp. 42–50. By the use of a rather ingenious method, Dr. Kuznets attempts to measure tax capacity. His procedure is to estimate minimum and then efficiency consumption standards (relating capital formation to the latter) and then to deduct required amounts of consumption and investment from national income. The remainder may be had by the tax collector.

[2] The reader should be reminded that these estimates were made on 1945 prices and are allowed to stand as then made. In the first four months of 1947, prices (consumers') actually were 20 per cent above those of 1945.

Chapter XVIII

The Tax System

INTRODUCTION

Tax capacity and, therefore, debt potential depend in no small part upon the nature of the tax system. Under the tax system that prevailed in France before the French Revolution, for instance, with its severe incidence of taxes on the hard-pressed masses, the limits of capacity were reached much sooner than under our modern system in which one objective is to tax those with taxable resources and ability to pay. In the United States, today's ratio of tax capacity to income is much greater than it was at the beginning of the century—largely because of the movement away from consumption and property taxes. In 1902, for example, property taxes accounted for 51 per cent of taxes of all governments; consumption taxes, for 47 per cent; and income, inheritance, gift, and corporation taxes, for 2.1 per cent. By 1938, the respective percentages were 32, 30, and 28 per cent; and pay-roll taxes, 10 per cent. In the course of the war, the shift to income taxes has been accelerated. Property taxes are a depressant because they have to be paid irrespective of income; and excessive consumption taxes reduce consumption and employment.

We can see more clearly the revolution that has come about in our tax system, if in our imagination we superimpose the tax structure of 1902 on our requirements at the peak of the war—the need of raising at least $53.0 billion in taxes. In 1902, virtually all revenue came from property and consumption taxes. It would have been impossible to raise $27 billion out of property taxes and $26 billion out of consumption taxes—the total receipts of all taxes in 1944–1945 were $53 billion—on the basis of relative contributions of these taxes in 1902. In 1938, the property tax yielded less than $5 billion and clearly had reached close to its maximum yield—though the property tax might respond to some extent to rising incomes—and consumption taxes yielded between 4 and 5 billion dollars. Under war incentives and rising incomes,

it was possible to double the yield of consumption taxes. Yet under the most favorable assumptions, a tax yield of even $20 billion out of consumption and property taxes together is not likely to be achieved—even allowing for the favorable effects on other tax yields, of reduced direct taxation. *If we had financed World War* II *under the* 1902 *pattern of taxes, we would have had much larger rises in debt, greater recourse to inflation, and greater reliance on controls—to some extent, each of these would have occurred;* or with the alternative, the war effort on a much smaller scale, we might have lost the war.[1]

The tax pattern in use at the turn of this century would have interfered with the prosecution of World War II not only because it would have yielded less taxes, but also because the taxes would have been unpalatable to the masses since these would have paid a disproportionate part of them; and the high-income groups would have obtained disproportionate, and advantageous, stakes in the public debt. Under these circumstances, morale would have suffered. Justice in taxation is even more urgent in war than in peace.

TAXES ON CONSUMPTION

18.1. WHY TAXES ON CONSUMPTION SHOULD BE KEPT DOWN. It is commonly agreed that in peacetime it is important to maintain consumption at a high level. In general, an excise or sales tax or a customs duty will reduce consumption more than a corresponding amount of revenue raised by income taxes. *Ceteris paribus*, income taxes are to be preferred to consumption taxes, because income taxes will cut consumption—and employment—less than consumption taxes will.[2]

High-level consumption is a *sine qua non* for high levels of demand and employment. At high incomes and, even more so, at rising incomes there is a tendency to save too much. Much will depend on the rate of rise of income; in periods when incomes are rising rapidly, the dangers of underconsumption are especially great. To be sure, investment may absorb the savings, and demand will thus be kept up. But when investment demand is at a low level, as it was in the thirties, the consumption deficiency raises serious problems. Insufficiency of demand and, as a result, unemployment originate in the failure of income earned to be spent on consumption and investment goods.

Consumption taxes are a matter of special significance for the economy because consumption, in recent decades, has accounted for 80 per cent or more of total spending: in the years 1921–1938, the average expenditures for consumption were 83 per cent of gross national income; and a larger propor-

[1] Statistics for 1902 and 1938 from S. Kuznets, "National Income and Taxable Capacity," *A.E.R. Proc.*, 1942, p. 73.

[2] *Cf.* A. G. Hart and E. D. Allen, *Paying for Defense*, p. 114, 1941.

tion of net national income.[1] Any measures that discourage consumption will also discourage investment; for the latter depends on the former. It is another matter in the assumed full-employment world of the classicists, or the world of Say's law where supply creates its own demand, and savings are automatically converted into investments. Then a reduction of consumption is reflected in a rise of investment. In the actual world of unemployment and inadequate demand, however, a reduction of consumption may bring not a rise of investment, but a fall.

An example will clarify the issues. In the postwar full-employment economy, consumption may be estimated at $120 billion and investment at $30 billion. A tax is imposed, say a sales tax, which reduces consumption by $5 billion. This curtailment of consumption by 4+ per cent is equivalent to a reduction of 17 per cent of investment. If the effects of the tax are to be neutralized, a rise of investment by 17 per cent will be required, a result not likely to be achieved when consumption has been cut. (I leave out of account the eventual effects of government spending.)

INVESTMENT AND TAX PLANS

18.2. VARIOUS PROPOSALS TO CUT TAXES ON INVESTMENT. Much concern is expressed over the adverse effects of present-day taxation on risk taking and investment. It is held that with current high rates of corporate and income taxation, it does not pay to take risks; that if the risk is taken and the outcome favorable, little is left for the investor, since at the prevailing high tax rates the government takes a generous slice of the profits. If losses result, the investor alone pays. Under these conditions, it is held, the sensible investment policy is to buy gilt-edged bonds. With this increased demand for fixed interest-bearing assets their prices rise, *i.e.*, the rate of interest falls. That under current tax policies investment in bonds is favored, further detracts from the attractiveness of equity financing. (Under *corporate* taxation, for example, interest on bonds is not taxed whereas earnings on equity investments are subject to taxes.[2])

TAX REDUCTION

18.3. TAX REDUCTION MAY GO TOO FAR. Programs for tax revision are frequently presented on the implicit assumption that taxes are more important than they really are. Failure to invest is not merely a matter of taxation. *The political milieu, international relations, labor policy, adequacy of investment outlets, the rate of interest, the degree of uncertainty—all*

[1] League of Nations, *Economic Stability in the Post-war World*, Part II, p. 54, 1945.

[2] Space precludes a discussion of the various tax plans to encourage investment. The reader will find them discussed, as well as references, in my *Inflation and the American Economy*, Ch. XXIX, 1945, and also in The Committee on Postwar Tax Policy, *A Tax Program for a Solvent America*, Chs. I, II, 1945. For official suggestions, see *The Budget*, 1947, pp. LXXVII–LXXVIII, and Hearings, Senate Finance Committee, *Revenue Act of* 1945, p 45.

these influence investment decisions. Many hold that taxation is less important than other considerations. Professor Simons, for example, an intransigent opponent of deficit financing, singled out labor policy as the most important single variable.[1]

It is clear from the above that funds made available through reduction in taxes are not automatically converted into investment. Thus, federal taxes may well yield $6 billion less by 1948 than in 1944–1945: in part because of a decline in income, and in part because of changes in the tax structure. Even for fiscal year 1947, a reduction of $15 billion from yield in fiscal year 1945 was at one time anticipated. Let us relate these figures to the problem of investment. In the thirties, gross capital formation was $6 billion per annum. The problem really is the amount and nature of tax reduction required to raise gross investment to a minimum of $30 billion, without discouraging consumption—$30 billion of investment or more may be required to yield a high-employment economy. Will, for example, a reduction of taxes of $10 billion—one-half associated with declining income and one-half with a reduction of rates—assure the country the required rise of investment?

The answer cannot be an unqualified yes or no. Much will depend upon other factors in the situation (*e.g.*, political milieu, debt policy, the rate of interest) which determine businessmen's decisions. Consider, for example, the rate of interest—a rise is assumed to be harmful to investment. Whereas a reduction of taxes, because it increases the flow of funds for investment, may tend to reduce the rate of interest, a reduction of public expenditures may well tend to raise interest rates. (The rate of monetary expansion is damped with a reduction of deficits.) Again, a given tax reduction will affect consumption as well as investment. Much of the relief may be spent via favorable effects on consumption (which indirectly affect investment). It is necessary to assess the direct effects on investment and the indirect effects, *i.e.*, via the rate of interest and consumption.

18.4. TAX REMISSION MAY NOT YIELD EXPECTED RISES IN SPENDING. Moreover, tax relief may not be so helpful to the businessman as he sometimes assumes. *Overimpressed by his payment of taxes and not fully aware of their diffusion, he is too ready to believe that the tax he pays is the tax he bears.* From this he concludes that the remission *pari passu* yields him

[1] H. Simons, "Hansen on Fiscal Policy," *J.P.E.*, 1942, pp. 161–196, especially pp. 171, 195.

additional resources; but this does not necessarily follow. A substantial, if not the main, part of the pay-roll tax, for example, is borne by others—not by the businessman. Yet the average businessman is hostile to the pay-roll tax on the grounds that he pays and bears it. Similarly with property and other business taxes.

In short, we cannot give a precise answer concerning the relation of tax reduction and investment. We have noted above that investment is influenced directly and indirectly, that consumption is also affected, and that the gains may accrue to others as well as to business. *In general, we should emphasize the effects on funds available, and on incentives.* As to funds made available to business, we should consider (1) that taxes are in no small part on surpluses and (2) that business taxes are to some extent passed on to consumers. A reduction on the assumptions under (1) and (2) then makes more funds available to business—but insofar as the income taxed was surplus or was not borne by industry, the tax concessions were not required: they are in fact a windfall. Business has as a result of tax remission, let us say, $10 billion more available. They may invest these $10 billion, or they may encourage consumption to *some* extent (*e.g.*, by paying out more dividends, or better, by cutting prices). How much will be invested will depend on the numerous factors noted above. In part business may not profit directly; for having passed on part of the taxes in higher prices, entrepreneurs may now reduce prices and thus encourage consumption and, indirectly, investment. They need not do so, however: American business has large elements of monopoly, with the result, *inter alia*, that entry of new firms is rendered difficult, and savings in taxes may be pocketed as an alternative to reducing prices.

The second issue is the effect on incentive. *Here the point is emphasized that tax reduction will stimulate investment especially because the scaling down of progressive taxes will encourage risk taking.*[1] For that reason large amounts of the increased funds made available may be invested.[2]

To sum up, investment will respond to any ensuing reduction in the rate of interest or rise in consumption, or to any improvement in

[1] The effects of high taxes on risk taking are discussed elsewhere in this volume. (*Cf.* Secs. 5.2, 5.3, 18.3.) One effect, for example, is that with a rise in tax rates a longer period will be required to recover the original investment. *Cf.* Oxford University Institute of Statistics, *The Economics of Full Employment*, pp. 94–95, 1944.

[2] *Cf.* D. Black, *The Incidence of Income Taxes*, Ch. XVII, 1931. Another consideration, which counts against tax reduction as a weapon to stimulate investment, is that with increased progressivity in taxation consumption tends to be shifted from unstable luxury markets to more stable markets with reduction of business uncertainties.

prospects for risk taking. To some extent, however, tax remission is a windfall; and business might react not by investing or reducing prices but by hoarding cash or keeping prices up. Investment broadly depends on many factors besides tax rates.

18.5. THE MANNER OF TAX REDUCTION TO ACHIEVE DESIRED EFFECTS. *Over-all tax reduction is not the best way to stimulate investment.* As we have seen,[1] tax reduction may have the general effect of a hypodermic—much like the effect of deficit spending, but not nearly so effective. In the future, there should be heavy taxes on business and high-income groups, but large concessions to those who invest. Remission of taxes might be granted only on condition that appropriate amounts of investment are then made. We list here the course tax reduction should take when the objective is stimulation of investment.

1. A capital tax is in some respects to be preferred to an income tax, and for the following reasons. (Even a property tax, which is in fact a capital tax, has some good points.) *If all assets are taxed, both hoarded and productive, then the stimulus to invest is strengthened.* Investment on the average will then yield net income, income not invested will yield negative income (*i.e.*, no income is earned in the latter instance but taxes are paid). And since the coverage is wider, average tax rates will be lower. In this manner, both new and old investments (*e.g.*, maintenance) are encouraged. An income tax, on the other hand, discriminates against assets yielding income.

A drawback to the exercise of this capital tax would be the current heavy taxes on real property. As an offset, heavier taxes on personal property might be imposed, however, and especially on idle money.

2. *Special tax concessions should be made for income that is invested.* More generous deductions should be allowed for losses. For example, losses might be carried back 2 years and forward 5—to be charged against profits. (Though it is frequently forgotten that, under modern tax systems, the state shares losses—the result of losses is a reduction to a lower bracket.) Depreciation allowances on new investments should be written off over relatively few years—in this manner risks are reduced, and income tax rates on income from investments are reduced.

3. Insofar as possible, the concessions should be made in the taxes that discourage investment a maximum. I should rank them in this order: consumption taxes, corporation tax, income tax, pay-roll tax, property taxes.

18.6. UNDER WHAT CONDITIONS DO TAXES REDUCE EXPORT TRADE? Countries greatly dependent on foreign trade are especially concerned over the effects of increased taxation on their exports. Many such countries fear that a growing public debt and a rising tax burden may seriously interfere with exports and, therefore, with imports.

But one should not be too sure that the rise of taxation reduces exports. What is relevant is not absolute, but relative, tax burdens. Mrs. Hicks, for

[1] *Cf.* Sec. 8: 9.

example, compares the ratio of taxes to national income for several competing countries in the years 1913, 1925, and 1933. In her view, it was the rise of taxes on factors of production and the reduced availability of business funds resulting from increased taxation that were unfavorable to the maintenance of the British export position.[1] Although the British ratio of taxes to income was relatively high in the first two years, by 1933 the British had greatly improved their relative position. For a more recent year, the United States Treasury presented the following results (Table 25):

TABLE 25.—TAX BURDENS, UNITED STATES AND UNITED KINGDOM, 1942–1944

1. Central and Noncentral Government Taxes per capita, 1943–1944:	
United States	$357
United Kingdom	291
2. Per Cent Total Taxes to National Income	
United States, fiscal 1943	23.8
United Kingdom, calendar 1942	42.1

SOURCE: U. S. Treasury Department, *Comparison of Taxes in the United States, United Kingdom, and Canada*, October, 1943, pp. 2, 7. Figures given in (2) are not strictly comparable.

What matters, of course, is the kind of taxes levied. Insofar as practicable, taxes should be on surpluses rather than on costs—taxes on income, not on sales or customs duties. Yet, as we shall see, taxes on income may in part be passed on in higher prices. Pay-roll taxes, for instance, are income taxes, but to some extent they are passed on in higher prices.[2] Insofar as they are in fact wage deductions and, therefore, account for a temporal redistribution of consumption by labor—consumption is cut when reserves accumulate and rises when reserves decumulate—their repercussions on exports are not important. It is only when the tax is shifted in higher prices, or when social security is financed through general taxation, that the international repercussions are a matter of concern.

What can be said in general about exports and a rising tax burden? Clearly the total tax burden is relevant and particularly relative to competing countries. *Then we should scrutinize taxes that bear on costs*—(1) *through drying up the source of needed capital, and* (2) *through increased recourse to taxes passed on to consumer. Finally, the tax expert should observe the relative burden on export industries as against other industries.* For example, do export industries in general have relatively large pay rolls in relation to all costs? If this is the case, it may be expedient to increase pay-roll taxes slowly.

Irrespective of whether trade returns to normal as a result of monetary and cost adjustments or remains at a definitely lower level, the structure of the export trade will change. Taxes raise costs and prices of industries and of individual firms at varying rates. And the response of supply and demand at home and abroad will vary.

18.7. CONCRETE EXAMPLES. An industry or firm with large labor costs will suffer *relatively* in response to a heavy pay-roll tax; similarly, industries and firms with inadequate capital will suffer when subject to severe corporation and income taxes: their costs will rise relatively.

[1] U. K. Hicks, *The Finance of British Government*, 1920-1936, pp. 262–264, 1938.

[2] *Cf.* Seymour E. Harris, *Economics of Social Security*, pp. 440–441, 1943.

Sellers on foreign markets confronted with rising costs and prices will not suffer equivalent losses of markets. Sellers of Scotch whisky, for example, may suffer small losses in their foreign markets. Foreign buyers will not be deterred greatly by (say) a 10 per cent rise in prices, for foreign demand is inelastic, and in large part because supplies of acceptable substitutes are inelastic. Demand in Great Britain, moreover, is inelastic: a small increase in price will not greatly influence the amount of hard liquors which are consumed in England in normal times. Finally, supply is elastic in Great Britain, *i.e.*, the seller awaiting an improvement in demand can withdraw supplies from the market, especially in the case of whisky which increases in value with age. For all these reasons, a significant price rise will result only in a modest reduction in demand.

Rising costs would not be so favorable for those producers facing severe competition abroad (foreign demand is elastic and alternative supplies elastic); such producers will find little response to price concessions at home (domestic demand is inelastic, or if elastic, is small—possibly because the foreign market is large relative to the domestic market); in addition they cannot easily divert their resources to other industries nor withhold supplies from the market. Their resources may be definitely committed to a particular industry and cannot easily be moved; and the price of withholding may entail heavy storage charges and deterioration. Possibly this analysis fits the British textile industry. The tourist industry is another example: competition is keen; the scenery and hotels are not easily adapted to other uses; and for consumers there are unlimited possibilities of substitution for travel elsewhere than in Great Britain.

Finally, we should note that when equilibrium is once more reestablished any reduction of costs induced through general monetary measures will not mean restoration of the old cost structure. *Each industry and firm, under the impact of the rise of taxes, has suffered unique changes in costs, prices, and sales. An apt analogy is perhaps with saturation and precision bombing. When general readjustments are effected through monetary measures, this corresponds to saturation bombing. General measures do not correct unique situations resulting from changes.* Concurrent with less export trade, new export industries and firms may well develop; while old export industries that have suffered as a result of the high taxes may fold up.

18.8. CONCLUSION. The United States, as well as Great Britain, has suffered from tax systems that have been regressive and therefore harmful to the maintenance of consumption. During World War II, with the emphasis on direct taxes, the relatively heavy load of taxes on consumption was reduced. For the postwar, tax planners urge a revision of our tax system with a view to discouraging both consumption and investment a minimum. Yet at some point a choice must be made between taxes that reduce investment, on the one hand, and consump-

tion, on the other. If it is assumed too readily and incorrectly that any relief given to business will result in a corresponding rise in spending by business or by consumers—the latter presumably being induced by accompanying price concessions—we may go too far in cutting business taxes. More thought should also be given to incentive taxation, the objective being to reduce taxes most where the ensuing rise of spending will be greatest.

These tax matters in this chapter represent some of the ramifications of the problem of the National debt. We have dealt with the international repercussions of tax systems: their effects on costs, on sales abroad, on the structure of industry—all ramifications of the debt problem.

Chapter XIX

Who Pays?

THE PROBLEM

By the question, "who pays?" we ask what is the distribution of the tax burden among various income groups. This problem has received much attention from economists—several studies of the distribution of the burden among income groups are available. In order to assess the ultimate burden, we must study the incidence of the taxes, *i.e.*, on what groups the taxes ultimately fall. *We should try to estimate the burden of taxes borne by each income group because only with this knowledge can we plan a tax system; then we can gauge the effects of the tax system upon savings and consumption and, therefore, upon spending and income.* The problem, let us state at the outset, lends itself to no precise analysis, but although the results therefore cannot carry too much weight, the question, nevertheless, should not be neglected.

In order to study the problem of incidence, it is necessary first to investigate the allocation of tax collections over income groups—to apportion, *e.g.*, property taxes, sales taxes, estate duties, liquor taxes. But there is little such information available, *e.g.*, information is lacking on the percentage of alcohol consumed by different income groups. Then, too, assumptions have to be made concerning the incidence of each important tax. As we shall see, there is much disagreement. (The Twentieth Century Fund has held that the variations in tax burdens according to various assumptions as to incidence are not so great as is commonly believed.) Finally, we have to estimate the distribution of total income over income groups, *e.g.*, proportion of total income earned by those with income of $500 or less. Students of these problems are well aware of the pitfalls and the limited value of the final results.[1]

[1] See especially: (1) The Twentieth Century Fund, *Facing the Tax Problem* (Shoup, Blough, and Newcomer), Ch. 16, 1937. (2) U. K. Hicks, *The Finance of British Government, 1920–1936*, Ch. XVI, 1938. (3) T.N.E.C., Monograph 3, *Who Pays the Taxes?* 1940. (4) T.N.E.C., Monograph 9, *Taxation of Corporate Enterprise*, Chs. VI, IX–XI and pp. 188–200, 1941. (5) T.N.E.C., Monograph 20, *Taxation, Recovery and Defense*, especially

Let us list the main results drawn from four studies of distribution of tax burden—two of Great Britain and two of the United States. They reach similar conclusions. *In general, the tax burden is regressive in that the ratio of tax burden (not payment) is relatively higher for the lowest income groups than for the moderate-income groups.*

19.1. REGRESSIVE TAXES IN THE UNITED STATES. Colm and Tarasov estimated taxes as percentage of consumer incomes in the United States, 1938–1939 (Table 26).

TABLE 26.—TAXES AS PERCENTAGE OF CONSUMER INCOMES, 1938–1939

	Per cent
Under $500	21.9
$500–$1,000	18.0
$1,000–$10,000	17.3–17.9
$10,000–$15,000	25.5
$20,000 and over	37.8

SOURCE: Adapted from T.N.E.C., Monograph 3, *Who Pays the Taxes?*, p. 6.

A study by Shoup *et al.* (Twentieth Century Fund Study) concluded that under five series of assumptions as to incidence and intrafamily distribution of property the proportion of tax burden to income was in every case regressive for incomes of between $500 and $2,000 for farmers and $1,000 and $2,000 for wage earners—the percentage of tax burden to income was greater for farmers with $500 incomes than for farmers with $1,000, and greater for the latter than for farmers with $2,000 incomes.[1] (Prewar British taxation for incomes of less than £500 was also regressive.[2])

The explanation of the regressive tax system in the United States is the heavy reliance on taxes on property and consumption (inclusive of sales and customs duties). In Great Britain, the importance of customs duties and excise taxes is especially to be noted.

In the United States a trend toward progressivity is evident. Whereas property and consumption taxes yielded 98 per cent of all tax revenues in 1902, they yielded only 62 per cent in 1938. Income and other direct taxes (exclusive of pay roll) rose from 2 per cent up to nearly 28 per cent. From 1930 to 1938, however, the trend toward progressivity seems to have been interrupted, the explanation being the sensitivity of direct taxes to business conditions.[3]

19.2. REGRESSIVE TAXES IN GREAT BRITAIN. The tax system in Great Britain was approximately proportional over all income ranges early in the century but "has become highly and increasingly progressive in the upper ranges and at the same time definitely regressive over a gradually extending range of the lower incomes."[4]

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pp. 165–222, 1940. (6) *Report of the Committee on National Debt and Taxation (Colwyn Report)*, Part I, Sec. IV, 1927.

[1] The Twentieth Century Fund, *op. cit.*, p. 232.

[2] Hicks, *op. cit.*, p. 270.

[3] Figures from S. Kuznets, "National Income and Taxable Capacity," *A.E.A. Proc.*, 1942, p. 73; T.N.E.C., Monograph 9, p. 8.

[4] Hicks, *op. cit.*, p. 269.

Then there is the study of the Colwyn committee which covers a rather long period as compared with other studies. The Committee stated that for 1903–1904 the British system of taxation was regressive for the entire range of incomes wholly earned; and regressive for incomes from £50 to £200 sterling—for incomes not wholly earned but consisting of half from earnings and half from investment. Subsequently, the system became less regressive and, even, progressive over large ranges of incomes. This is evident from Table 27.

TABLE 27.—DIRECT AND INDIRECT TAXATION AS PERCENTAGE OF INCOME WHOLLY EARNED

Income, £ Sterling	1903–1904	1913–1914	1918–1919	1925–1928
50	8.7	8.0		
100	5.6	5.4	9.9	11.9
200	4.8	4.0	7.9	10.2
1,000	6.1	5.2	16.9	11.0
50,000	4.8	8.4	50.6	44.4

SOURCE: Adapted from *Report of the Committee on National Debt and Taxation*, p. 95, 1927.

THE PROBLEM OF INCIDENCE AND EFFECTS

19.3. THE ORTHODOX VIEW. The generally accepted view is that income taxes and corporate income taxes are not passed on in the form of higher prices or reduced wages.[1] If corporate taxes are in fact passed on to consumers, then the adverse effects on consumption are greater, and on savings less, than is generally assumed. If, on this assumption of incidence, corporations were to reduce prices in response to cuts in the corporate taxes, there would be a valid case for reduction of corporate taxes.

Some facts suggest the likelihood that income taxes and corporate income taxes are passed on. If, for example, corporations bear the burden of corporate income taxes, the rise of corporate profits in the war period from 4 billion dollars to between 9 and 10 billion dollars (after taxes) needs explanation. Corporations were apparently able to increase their profits after taxes by between 5 and 6 billion dollars despite the fact that corporate income and excess profits taxes rose from 1 billion dollars up to 16 billion dollars. The figures indicate that not only did they pass on the additional taxes but they also increased their net profits by between 125 and 150 per cent—and that despite the additional obstacle of price control. Our wartime experience suggests that corporate income taxes may well be passed on, or at least that, in the short run, the orthodox theory of incidence is not borne out.

The generally accepted theory of incidence is based on the following points:

1. That prices are determined by the no-profit firms. Since these, the price-determining firms, do not pay taxes, income taxes cannot be passed

[1] Hicks, *op. cit.*, p. 267; Twentieth Century Fund, *op. cit.*, p. 225; T.N.E.C., Monograph 3, pp. 15–16.

on in higher prices. If corporations earning profits should try to pass on the tax, they would lose business to the marginal or no-profit firms. Any additional taxes are then at the expense of the intramarginal firms, *i.e.*, at the expense of profits.

2. That each firm will produce up to the point where marginal cost is equal to marginal revenue. To clarify: the cost of producing a marginal unit is equal to the return obtained from the additional unit, taking into account the effects of the production of an additional unit upon (1) prices and (2) upon the total revenue yielded by all units produced by the firm. Since no profit is made on this marginal unit of the firm, a rise in income-tax rate cannot affect output. This result is obtained on the assumption that, despite a rise of taxes, demand remains the same and prices of factors are unchanged. A unit of output that was marginal before taxes will be marginal after taxes.

3. That the tax will not bring about a change in the allocation of resources. This might well happen should the tax, for example, result in reduced hours of work, with effects on prices.

19.4. RESERVATIONS TO THE ORTHODOX POSITION. Each of these points is open to serious reservations; hence the orthodox theory is not entirely acceptable.

1. Prices are not in fact determined by the no-profit firm. At any one time or other, there are some firms that suffer losses but nevertheless produce. For 1946, for example, the Treasury estimated that there would be 190,000 corporations with no net income, and 260,000 with a net income; the net income of the latter group would be $18.7 billion; the deficits of the former, $2.15 billion.[1] It is not at all clear that prices are determined by the no-profit firms. They may be determined at one time by the no-profit firm or at another by the representative firm cited by Marshall, which earns more than the marginal firm. In war or in prosperous times, for example, prices *on many markets* may be determined by firms with substantial profits.

2. To assume that imposition of tax does not affect the marginal cost and marginal revenue curves is unjustified: the marginal cost curve and the marginal revenue curve will not cross at the same point as prior to the tax. The tax affects the amount of savings, entrepreneurial effort, and labor offered. It is absurd to assume that one would choose to work the same number of hours for a *gross* income, irrespective of the amount taken by taxation. If, with a rise of taxation, a given gross income yields less *net* income, the energy and time given would probably be reduced. It is also unrealistic to leave out of account the effects, upon the marginal revenue curve or upon demand, of the rise

[1] Hearings, Senate Committee on Finance, *Revenue Act of* 1945, p. 46.

of taxes—through the changed spending patterns of both the taxpayers and of the recipients of government disbursements.

3. The point concerning changes in allocation of resources and of time: taxation reduces the net income of the taxpayer—not necessarily of the community, for income may rise if the effect of taxation is adequate additional spending. Insofar as taxation affects the level of income, it also influences the distribution of time and effort as between monetary pursuits and leisure; and insofar as some occupations or industries are affected more than others, taxation affects the allocation of resources among possible uses.

Thus the argument in support of nontransference of the burden of corporate income is weak on all three counts. In our approach we have adhered to a broad interpretation of the theory of incidence, refusing to distinguish between incidence and effects. To paraphrase Cannan, the cost of a bridge toll may be much greater to the one who walks several miles to avoid payment than to the one who pays.

Another relevant factor should be mentioned in this discussion of incidence of corporate taxes—it suggests some limitation on capacity to pass the tax on. The corporate income tax is a differential tax in that other forms of business are not subject to it. For this reason, the capacity of corporations to pass the tax on may be questioned: they face the competition of noncorporate forms of business. Yet despite increasing tax burdens, corporations have been more than able to maintain their relative position. Confronted though corporations are with increased relative tax burdens, nevertheless they also seem able to obtain advantages of other kinds[1]—*e.g.*, as larger agglomerations of capital are required, freedom of entry is substantially curtailed.[2]

INCIDENCE OF OTHER TAXES

19.5. GENERAL PROPERTY TAX. Although there is fairly general agreement on the incidence of the corporate income tax, the incidence of other

[1] For some interesting figures on the relation of size and taxes and relative tax burden of corporate and noncorporate business, see T.N.E.C., Monograph 9, pp. 188 *ff.* In the metal industries, for example, federal taxes in 1938 on business income were 1.22 per cent of sales for corporations and $6\frac{1}{100}$ of 1 per cent for individuals; for all taxes, the respective figures were 5.03 and 2.77 per cent. The range for *all* taxes was from 3.13 per cent for concerns with sales under $50,000, to 5.22 per cent for concerns with sales in excess of $1 million.

[2] For the material in this section, see H. A. Silverman, *Taxation: Its Incidence and Effects*, pp. 138–150, 1931; *Colwyn Report*, pp. 97–108; R. Goode, "The Corporate Income Tax and the Price Level," *A.E.R.*, March, 1945, pp. 40–58; D. H. Robertson, "The Colwyn Committee, the Income Tax and the Price Level," *E.J.*, 1927, pp. 566–581; and the excellent book by D. Black, *The Incidence of Income Taxes*, especially, Chs. II–IV, 1939.

taxes arouses much controversy. The general property tax is a good example of this. Before agreement on incidence is reached, agreement on certain preliminary problems is necessary. But the general property tax does not lend itself even to this: it is difficult, for instance, to find out what proportion falls on residences and what proportion on business buildings, and what proportion on land and what proportion on improvements. Even if we were to assume that we have the answers to these questions, we shall not be able to say, for example, whether the tax on residence is borne by the owner or the tenant. Where the owner is also the resident, there is no possibility of shifting the tax. Where the property tax is increased but the rise is not applied generally, it may be capitalized: the owner pays once and for all—but buyers will purchase only if returns after taxation are equal to returns obtainable elsewhere, *i.e.*, only if he can buy at a price reduced sufficiently to yield incomes (after the payment of the new tax) equal to returns obtainable elsewhere. Where there is a shortage of housing, the owner may have little trouble in passing the tax on to the tenant—a condition that existed in Great Britain after World War I, for example.

19.6. PAY-ROLL AND EXCISE TAXES. Nor do we find more agreement among experts as regards the incidence of the pay-roll tax. Most authorities seem to agree that the tax paid by the employer would be passed back to the employee—this on the assumption that wages are determined by marginal productivity. Unable to decide whether the tax is borne by consumers or workers, the British authorities omit the pay-roll tax from their calculations of tax burdens. Concerning incidence of the pay-roll tax, the Twentieth Century Fund, however, suggests the following alternatives: (1) a shift to consumers, and (2) one-third to consumers, one-third to employer, while one-third is borne by stockholders. After a thorough survey (published elsewhere), it is concluded by the writer that the classical theory of the incidence of pay-roll taxes (that the tax is passed back to employees) oversimplifies the problem—to some extent the tax will be passed on to consumers; to some extent it will be borne by owners. Much will depend upon monopolistic elements, the degree of generality of the tax (the burden is uneven), economic conditions, etc.[1]

19.7. TAXES SHOULD NOT WEIGH TOO HEAVILY ON CONSUMPTION. We can better suggest the tax system of tomorrow in the light of our past and present systems—their defects and strength. Our prewar tax system weighed too heavily on low-income groups and in general tended to discourage consumption. In a world in which consumption accounts for five-sixths of spending and largely determines other expenditures, *i.e.*, investment, a tax system that bears down on the low-income group (the group responsible for the largest part of consumption spending) is indeed faulty.

[1] Seymour E. Harris, *Economics of Social Security*, Part III, 1941.

In the course of the war, the largest rises were in direct taxes—approximately four-fifths of the rise in federal taxes being accounted for by direct taxes on corporations and individuals[1] (Chart 19).

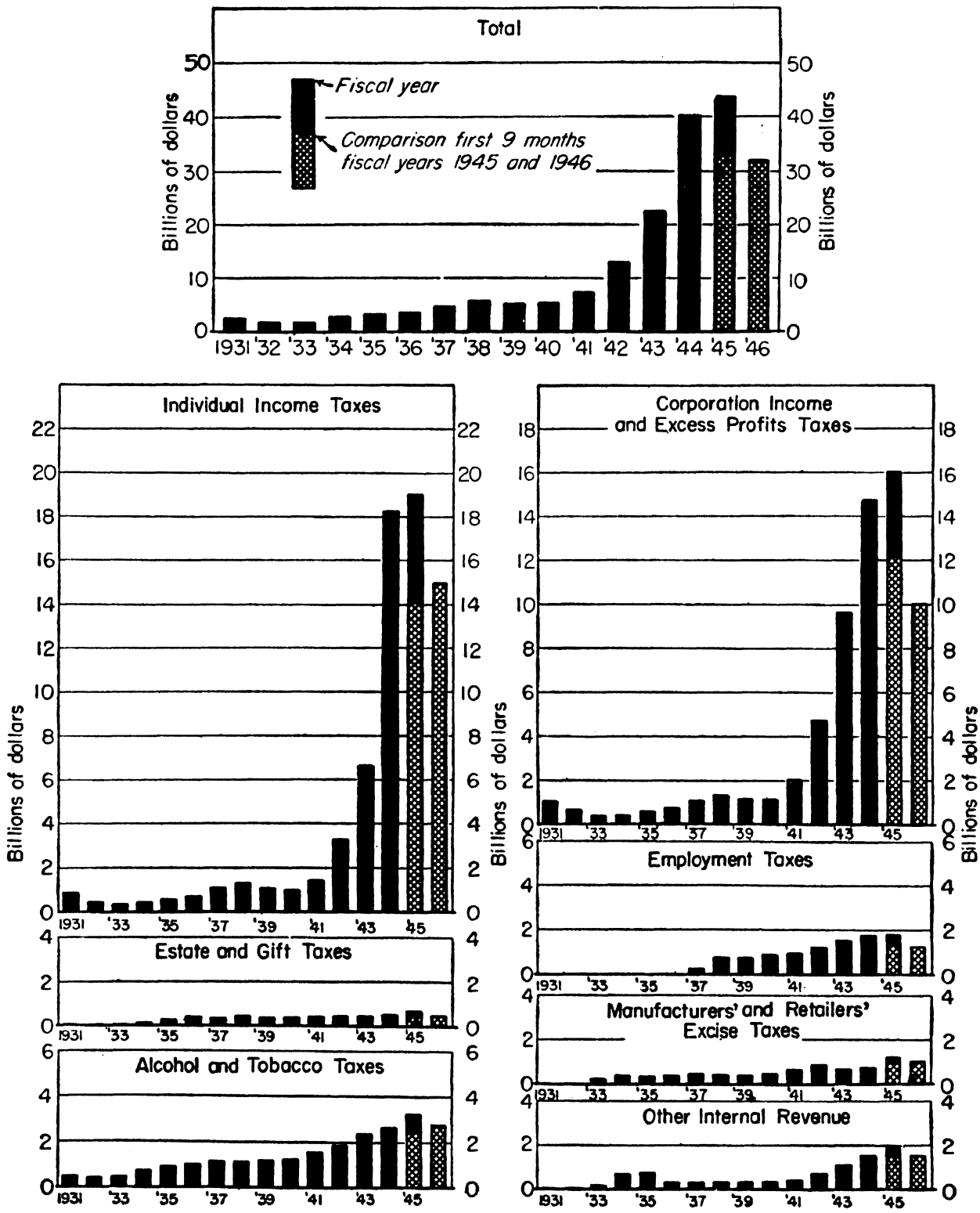


CHART 19.—Collections of internal revenue, 1931–1946. (*Source: U. S. Treasury Bulletin.*)

Federal receipts were up from $5.2 billion in fiscal 1939 to $46.5 billion in fiscal 1945 and $43.0 billion in 1946. Direct taxes on indi-

[1] *The Budget*, 1947, pp. LXXVII, A2, A3.

viduals and corporations accounted for a rise of around $33 billion from 1939 to 1945; in the year ending June 30, 1946, these income and profits taxes yielded but $3.6 billion less than in the corresponding period of 1945.[1]

Since these were largely taxes on high incomes, and at progressive rates, from an over-all viewpoint they should be considered salutary. Income-tax exemptions had to be lowered and rates for low-income groups increased—a regrettable but necessary policy in war when the objective is to keep consumption down so that more resources will be made available for the war. In war, there is no concern over deficiency of demand: only concern to keep private demand down. In World War II, pay-roll taxes also were up by $1.4 billion, and excise taxes by almost $4 billion.[2] These figures all relate to federal taxes; for here the really significant changes are to be found.

All in all, taking into account the tax structures and burdens of the prewar and war periods, and, on the other hand, the critical need for government expenditures—expenditures in the prewar period adequate to keep up demand, unprecedented expenditures in the war period to win the war—the conclusion is obvious: it is a mistake for our government to rely greatly on consumption taxes for revenue. Proposals of Prof. Hansen and the Committee for Economic Development for reduction of taxes on consumption are, then, much to be preferred to proposals of the Twin Cities economists or those of Prof. H. Lutz.

19.8. HOW TO ADJUST INCOME TAXES CONSISTENT WITH MAXIMUM GAINS IN INVESTMENT. Perhaps most difficult is the problem of the corporate income tax. Who bears the burden, the corporation, the consumer, or labor? Should the tax be reduced or even abandoned? The generally accepted view is that the stockholders bear the tax—that it is not passed on. On that assumption, the prescription is to reduce it and thus to curtail the double taxation of corporations and stockholders. The propriety of progressive taxation of corporations or the manner of dealing with undistributed profits does not here concern our discussion. We are, however, concerned with the possibility that the tax is in no small part passed on to consumers. If the tax is borne by stockholders, tax reduction will be helpful to a degree: the incentive to invest will undoubtedly be increased, and corporations will have

[1] *Treas. Bull.*, May, 1946, pp. 64–66; February, 1947, p. 2.

[2] *The Budget*, 1947, pp. LXXVII, A2, A3.

more funds available for investment. As was noted earlier in our discussion of reduction of corporate taxes investment may not rise adequately to justify tax reduction—especially if the result is a relatively heavier tax burden on consumers.[1] If, moreover, the tax is borne by consumers, then tax reduction may well be a windfall to corporations. Therefore, tax reduction should be granted only if there is reasonable assurance of a corresponding reduction of prices and (or) rise of investment.

19.9. CONCLUSION. This chapter will be ended with a few summary remarks. Property taxes are a deterrent to consumption, especially since they are probably largely borne by consumers. On the other hand, taxation of property is desirable because it discourages buying of property by those who would evade the risk of investment to acquire tax-free assets. Excise taxes should be cut, though not on those luxury items for which demand is inelastic. Pay-roll taxes, and notably if they lead to large accumulation of reserves, are a deterrent to spending. The requirements of the insurance principle in social security make necessary some compromises with the spending objectives, *i.e.*, levy of pay-roll taxes—but not to the extent of accumulating vast reserves. The incidence of corporate and even personal income taxes is still a matter of some doubt, and though there is some evidence that taxes are passed on, corporate tax policy should be considered in the light of these doubts. Perhaps the most important general conclusion is that where the incidence suggests substantial burdens on consumption—*e.g.*, sales and property taxes, and pay roll, and to a lesser degree corporation and income taxes—special efforts should be made to reduce taxes.

[1] *Cf.* Secs. 18.4 and 18.5.

Part VII

THE MANAGEMENT OF THE PUBLIC DEBT

INTRODUCTION

The theme of Part VI was the relation of public debt to taxes. It was explained that debt potential is related to the tax potential and the latter depends on the nature of the tax system, the importance of transfer payments, the objectives of public expenditures, and especially the size of the nation's income. With rising incomes, with sound management of the economy, with a tax system that does not press too heavily on consumption and (or) investment, and with fairly liberal allowances for expenditures other than for debt, we conclude that debt growth does not injure the economy; we conclude, moreover, that debt growth at reasonable rates does much more good than harm to the economy.

In Part VII, we are concerned with the problem of debt management. The United States, as the result of the war, has a large public debt; and, with the economic, political, and social trends of the world as they are today, it would appear that in the future our public debt will, except for an occasional interval, continue to rise, rather than fall. Therefore, it is important that we know how to manage the debt — especially the rate of interest, maturity schedules, rate of repayment— and that in managing the debt we pay special attention to the effects of debt policies upon prices and output. But before we can proceed to that investigation, we present two preliminary chapters of miscellaneous but related facts about the public debt which give a panoramic view of the debt picture and without which we cannot intelligently discuss its management.

Chapter XX

Some Facts

THE COMPOSITION OF THE PUBLIC DEBT

20.1. PUBLIC ISSUES CLASSIFIED; SPECIAL ISSUES. The composition of the public debt on Dec. 31, 1946, is indicated in Table 28.

TABLE 28.—COMPOSITION OF INTEREST-BEARING PUBLIC DEBT, DEC. 31, 1946

	Billions of dollars	Per cent of total
Total interest-bearing debt	257.6	
Public issues:		
Bonds, marketable	119.5	46.4
Bonds, nonmarketable	50.7	19.7
Notes, marketable	10.1	3.9
Notes, nonmarketable	5.7	2.2
Certificates of indebtedness	30.0	11.6
Bills	17.0	6.6
Special issues	24.6	9.6

SOURCE: *Treas. Bull.*, February, 1947, p. 26.

The reader will note that nonmarketable debt constituted about 22 per cent of the debt at the end of December, 1946, and that if bills, certificates of indebtedness, and notes are defined as short-term issues, then the short-term debt accounted for 24 per cent of the debt.

20.2. NONMARKETABLE ISSUES AND THEIR SIGNIFICANCE. Perhaps the most striking change in the wartime composition of the public debt was the large relative growth of nonmarketable issues. Nonmarketable issues, of which but a few billions were outstanding in 1940, rose to $56 billion by the end of fiscal 1946.[1]

These nonmarketable issues are for the most part savings bonds maturing in 10 or 12 years (the amount of these outstanding at the end of fiscal 1946 was 49.5 billion) and Treasury notes (tax and savings series) of which there were 6.7 billion outstanding.[2] The appeal for

[1] *Treas. Bull.*, August, 1946, p. 22.
[2] *Ibid.*

the investor of nonmarketable issues is clear: since these issues cannot be sold in the open market, there is no danger of their being dumped on the market—with adverse effects on prices—either in response to fears of higher rates (and lower prices) or in order to purchase goods. Nonmarketable securities appeal also, because a special inducement in redemption price is offered to investors for not disposing of them to the Treasury prior to date of maturity. They can, of course, be cashed at a discount with the Treasury; but prices before maturity are fixed in a manner to encourage the holder to wait until the securities mature.

The advantage for the Treasury of nonmarketable issues is also clear: for a period of 5 to 10 years after the war it will be able to concentrate largely on redeeming, converting, or reissuing bills and certificates—Treasury bills and certificates outstanding at the war's end (August, 1945) amounted to more than $51 billion. On Aug. 31, 1945, marketable Treasury notes issued for 5 years or less accounted, moreover, for about $23.5 billion, or about 9 per cent of the interest-bearing debt. These also require attention in the early postwar. Thus we see it serves the Treasury's convenience not to be confronted in that encumbered period with redemptions or reconversions of between 20 and 25 per cent of its debt (nonmarketable issues), the better to concentrate its efforts on the short-term issues and long-term bonds maturing each year. We are not, however, assuming that nonmarketable issues are not redeemed before maturity. Actually, $45.6 billion of United States savings bonds were outstanding at the end of fiscal year 1945; but $4.3 billion had been redeemed in that year as against gross new issues of $14.9 billion. For fiscal year 1946, the net increase in amounts outstanding was $3.4 billion and in the calendar year 1946, $1.6 billion.[1]

When any issues become due, the Treasury will, of course, redeem them through the payment of cash, or will offer other securities in payment, the new rates and other terms to be determined by the conditions prevailing at that particular time; or it may offer a longer term issue in exchange. The holder can, of course, demand cash, in which case the new issue will be purchased by some one else. Today's economic and political outlook makes it dubious, let us repeat here, that there can be a substantial reduction of debt in the United States in the next 20 years, though with high incomes and inflationary dangers as in 1946 and 1947, significant reductions may be made.

[1] *Ibid.*, February, 1946, p. 36; August, 1946, p. 22; February, 1947, p. 35.

20.3. IMPORTANCE OF SPECIAL ISSUES: SALES TO GOVERNMENT AGENCIES AND TRUST FUNDS. At the end of fiscal year 1946, "special issues" accounted for $22.3 billion, or 8.3 per cent of the interest-bearing debt. These are issues sold to the various government trust funds, the more important being, in this order: the Unemployment Trust Fund ($6.7 billion), Federal Old Age and Survivors' Insurance Trust Fund ($5.9 billion), National Service Life Insurance Fund ($5.2 billion), Government Retirement Funds ($2.2 billion), Government Life Insurance Fund ($684 million).[1] With these funds, however, securities other than special issues also are purchased—investments of agencies and trust funds in public and special issues amounting to $29.1 billion.[2]

Sales of special issues to various government trust funds are helpful to the Treasury for the following reasons: to the extent that it can sell these issues to the aforementioned funds, it is less dependent upon sales to the public or the banks. The trust funds are a channel through which savings are made available to the Treasury. Government trust funds are required to invest their excess cash in Treasury issues: their net purchases over a period of 6 years ending June 30, 1946 were $22.4 billion.[3] What is more, these funds, in the absence of radical changes in legislation, should continue to grow for years. *In the postwar, part of the cash required to redeem issues held by the public and the banks may be obtained from cash made available by the government trust funds.*

The *growth* of these trust funds, let us note, contributes toward the maintenance of low rates of interest. But will the funds continue to grow? In the next 10 years the government may find it necessary to convert special issues of the Unemployment Trust Fund into cash, the exact amount depending upon the extent of unemployment. For many years, further expansion of cash available in government life insurance and retirement funds, and probably in old-age insurance and survivors' trust fund, should more than offset drains on unemployment funds, however.

THE CHANGES WROUGHT BY WAR

20.4. INCREASED IMPORTANCE OF SHORT-TERM AND NONMARKETABLE ISSUES. The composition of our wartime public debt changed greatly.

[1] *Treas. Bull.*, August, 1946, pp. 22, 25.
[2] *Ibid.*, p. 23.
[3] *Ibid.*

This is evident from Chart 20, which reveals the large gain in non-marketable issues, in special issues, and in short-term issues (bills, certificates, and notes).

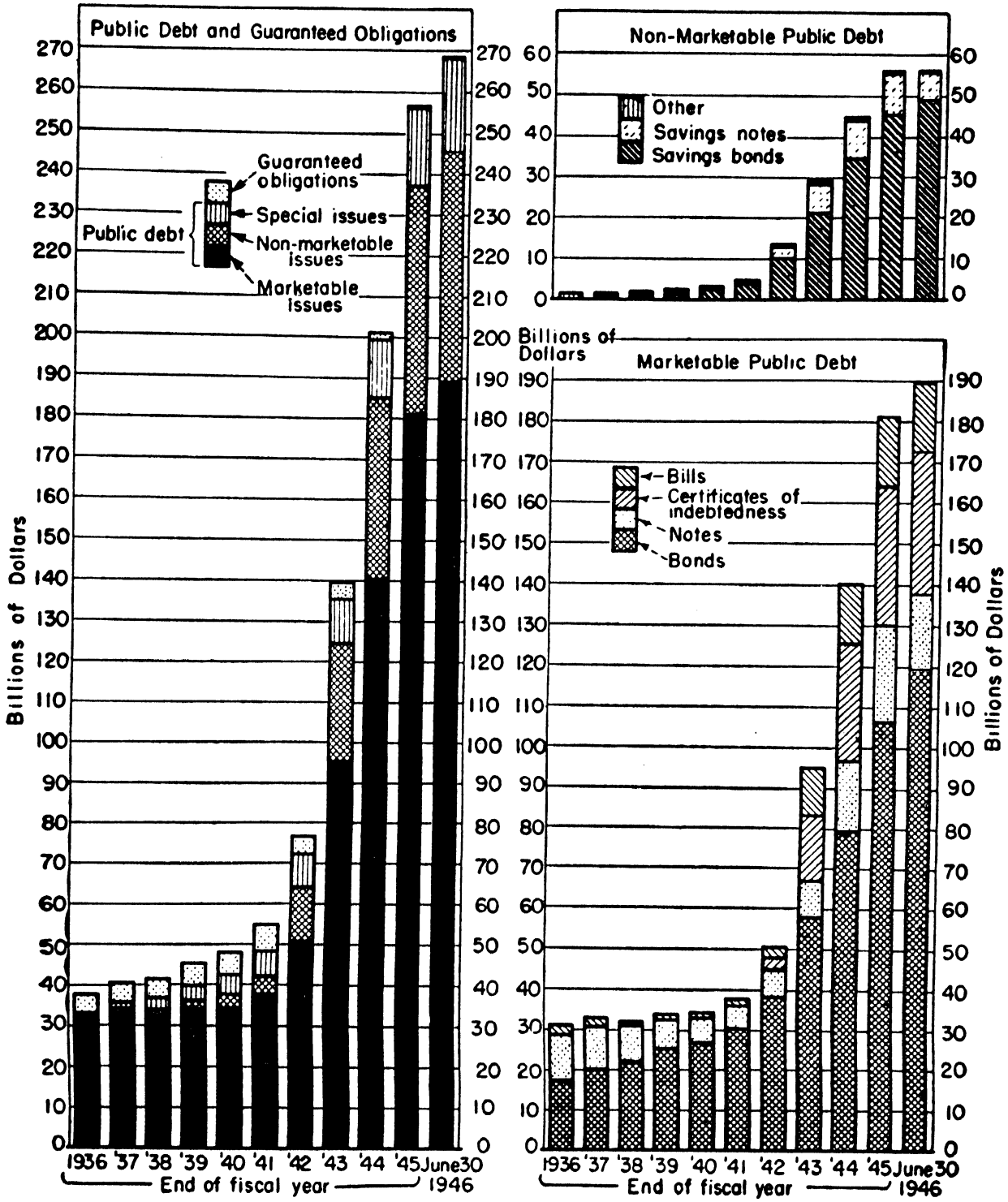


CHART 20.—Interest-bearing public debt and guaranteed obligations of the United States government. (*Source: U. S. Treasury Bulletin.*)

1. As has been noted, nonmarketable issues took on great importance—a rise in 1940 from $3.1 billion, or from 7.5 per cent to 20.6 per cent, the amount outstanding at the end of fiscal 1946 being $56.2 billion.

2. Short-term issues (certificates and bills) gained in relative importance—from 3.1 per cent in 1940 to 19.4 per cent at the end of fiscal year 1946. (These are exclusive of special issues and nonmarketable Treasury notes and bonds.)

In general, the Treasury tailored its issues increasingly to the needs of the market. This is good debt management: the Treasury has made special concessions to small savers and kept banks from buying (nonmarketable) series E and F savings bonds. It offered securities according to the requirements of the large taxpayers and also of the banks. With cash provided largely by the reserve banks, commercial banks were able to create vast quantities of deposits; and with these they purchased government issues. Commercial banks sought and were provided with large amounts of short-term issues. In general, the Treasury sells to the public as large amounts as they will absorb out of savings, and at low and stable rates. Additional loans required are then obtained from banks at even lower rates—these are the short-term issues. Banks seek short-term issues in order to protect themselves against a rise in the rate of interest and a fall in price: at an early maturity they can redeem at par. They are, moreover, restricted in their purchases of long-term securities.

WHO HOLDS GOVERNMENT SECURITIES?

20.5. DISTRIBUTION OF ALL INTEREST-BEARING AND ALL MARKETABLE ISSUES. 1. On June 30, 1946, the interest-bearing debt was $268.1 billion. The debt breaks down into components as indicated in Table 29.

TABLE 29.—OWNERSHIP OF INTEREST-BEARING FEDERAL DEBT, JUNE 30, 1946

	Billions of dollars	Per cent
Held by U. S. government agencies and trust funds	29.1	10.9
Held by Federal Reserve banks	23.8	8.9
Held by private investors	215.2	80.1

SOURCE: Computed from *Treas. Bull.*, August, 1946, p. 49.

Approximately one-fifth of the public debt, it is noted, was held by public or quasi-public agencies.

2. Table 30 shows the distribution of the debt in more detail. It will be observed that commercial and savings banks and insurance companies accounted for 43.2 per cent of *all* interest-bearing

debt, but no less than 59.7 per cent of marketable interest-bearing debt. Government agencies and others (nonfinancial corporations, individuals, etc.), on the other hand, held 56.2 per cent of all interest-bearing debt and only 40.5 per cent of all marketable interest-bearing debt. The significance of *marketable* securities as against that of all securities is that market pressures are more likely to originate in the policies of financial institutions than is indicated by the proportion of *all interest-bearing securities* held by these institutions. "Other" investors,

TABLE 30.—OWNERSHIP DISTRIBUTION OF ALL INTEREST-BEARING SECURITIES, JAN. 31, 1946

Total	Commercial banks		Savings banks		Insurance companies		Government agencies, trust funds, and Federal Reserve banks		Others	
$ billion	$ billion	Per cent	$ billion	Per cent	$ billion	Per cent	$ billion	Per cent	$ billion	Per cent
278.0	85.6	30.8	11.4	4.1	24.1	8.6	51.0	18.4	105.4	37.9
199.7*	84.2*	42.2*	11.2*	5.6*	23.8*	11.9*	30.3*	15.4*	50.2*	25.1*

SOURCE: *Treas. Bull.*, April, 1946, p. 51.
* Marketable securities.

on the other hand, may embarrass the government through large sales of nonmarketable securities directly to the Treasury. Obviously, the result of desertion by holders of nonmarketable securities would be greater pressure on financial institutions to buy additional amounts.

20.6. FINANCIAL INSTITUTIONS' RELATIVE STAKE DECLINES. In the last 30 years, the ownership of federal issues has undergone many changes. Table 31 lists these changes from 1916–1945.

Over these three decades, the share in federal securities held by commercial banks has declined; the share held by other financial institutions, inclusive of federal institutions, has increased (Table 31). In contrast with World War I when the relative stake of banks increased, in World War II the relative stake in the public debt of financial institutions of all kinds (inclusive of federal trust funds) declined.

20.7. PURCHASERS WHO CONTRIBUTE TO INFLATION AND THOSE WHO DO NOT. In 1945 and 1946, commercial banks held less than one-third of outstanding issues. If we include holdings of the Federal

Reserve banks—these make possible the expansion of holdings of commercial banks—bank portfolios in 1945–1946 accounted for around 40 per cent. *Yet it is an error to include as inflationary issues both*

TABLE 31.—PERCENTAGE OF TOTAL FEDERAL INTEREST-BEARING DEBT BY INVESTORS

	June 30, 1916	June 30, 1919	June 30, 1939	December, 1945
Commercial banks	77	20	34	33
Savings banks and insurance companies	*	*	20	13
Federal agencies, trust funds, and Federal Reserve banks	6	2	19	18
Others	22	78	27	36

SOURCE: *Treas. Bull.*, April, 1946, p. 51, and adapted from S. E. Leland, "Management of the Public Debt after the War," *A.E.A. Supp.*, Part 2, June, 1944, p. 106. Figures in column I add up to 105 per cent because the parts in the original series add up to more than the total.

* Included in "Others."

those held by Federal Reserve banks and commercial banks. Actual expansion of commercial banks' deposits is made possible by the purchase of securities by the Federal Reserve banks, in that the commercial banks thus obtain increased cash reserves; but the inflationary results are measured by purchases of commercial banks and the accompanying expansion of commercial-bank deposits.[1] (The commercial bank buys a bond and gives the government a deposit credit; the government then spends the money, and thus the new money begins to circulate.)

At the end of 1945, holdings by savings banks, insurance companies, government trust funds, and agencies, other corporations and associations, state and local governments, and individuals accounted for 58 per cent of the total debt. These may be termed noninflationary sales. An additional 10 per cent held by Federal Reserve banks contributes toward inflation but is not additive to inflationary purchases by banks.

At this point—subject to reservations explained later—we conclude:

1. Inflationary holdings = 33 per cent.[2]
2. Indirectly inflationary = 9 per cent.
3. Noninflationary = 58 per cent.

[1] This is subject to the reservation that banks convert part of the newly acquired cash obtained through purchases of securities by reserve banks to pay for currency notes required for circulation.

[2] *Cf.* Secs. 12.4–12.6 and Ch. XXII.

HOLDINGS BY MATURITIES

20.8. BANK AND NONBANK INVESTORS. Banks prefer to buy short-term securities more than other investors. Since a security is redeemable at maturity at par, a depreciation, from the banks' standpoint, is more serious the more remote the date of maturity. Since a depreciation of asset value results in reducing the value of assets held against deposit liabilities, banks are reluctant to purchase assets that may be depreciated for long periods.[1]

Despite their preference for short-term securities, commercial banks on Feb. 28, 1946, held but 2.8 per cent of their public marketable issues in the short-term and low-yielding (yielding ⅜ of 1 per cent) Treasury bills. This is explained, however, by the fact that United States government agencies, trust funds, and Federal Reserve banks held 77 per cent of the amount outstanding; and commercial banks accounted for 14 per cent of all issues of Treasury bills. Commercial banks held 42 per cent of their Treasury marketable securities in certificates of indebtedness and Treasury notes—their proportion of investment in these relatively short-term issues exceeded the proportion of these (*i.e.*, 30.7 per cent) to all marketable issues.[2] In later months, however, the banks were showing an increased interest in long-term securities. For example, from October, 1945, to Nov. 30, 1946, their investments in Treasury bonds rose from 55.9 to 69.6 per cent of total investments in public securities.[3]

Commercial banks, to repeat, buy more short than long maturities, relative to the amounts of short- and long-term maturities outstanding. Of maturities from 1 to 10 years, their investments account for a larger proportion of the issues than the corresponding total amounts outstanding. For maturities of less than 1 year, their proportion exceeded that of all other groups, excluding government trust funds and Federal Reserve banks. For maturities beyond 10 years, the holdings of commercial banks were less relatively than those for nonbanking investors. Table 32 presents the distribution of issues by maturities.

Distribution had changed greatly by the end of November, 1946. Maturities of less than 1 year had become less important: they

[1] *Cf.* Ch. XXIV. By the end of 1946, the inflationary holdings had been reduced to about 30 per cent. The Treasury redeemed issues held by banks, with the result that in November, 1946 commercial banks' portfolios of Treasury issues were $14 billion less than in December, 1945. *Treas. Bull.*, February, 1947, p. 48.

[2] *Treas. Bull.*, May, 1946, p 52.

[3] *Treas. Bull.*, January, 1946, p. 50; February, 1947, p. 50.

accounted for 32.1 per cent of all issues and but 26.9 per cent of the portfolios of commercial banks. The banks had also greatly increased their share of 1- to 5-year maturities and increased their share of maturities of over 20 years.[1]

TABLE 32.—PERCENTAGE DISTRIBUTION OF INTEREST-BEARING SECURITIES BY MATURITIES, JAN. 31, 1946

Call classes	Per cent held by all	Held by commercial banks
Due or first becoming callable within 1 year	35.3	37.6
1 to 5 years	17.7	29.9
5 to 10 years	16.5	25.4
10 to 15 years	8.7	4.2
15 to 20 years	8.9	.1
Over 20 years	12.8	2.9

SOURCE: *Treas. Bull.*, April, 1946, p. 52.

An excellent summary of the distribution of securities according to maturities in 1945 is also given by Chart 21. Insurance companies and savings banks, 60 per cent of whose Treasury issues had maturities of 10 years or longer, and 34 per cent of 1 to 10 years, showed the greatest interest in long-term securities. They wanted the highest possible return; and unlike banks, they were not subject to large calls on demand—hence their interest in long-term securities.

Commercial *and reserve banks*, on the other hand, held 45 per cent in maturities of 1 to 10 years and 9 per cent in maturities of 10 years and over. Treasury issues held by reserve banks were primarily in maturities of 1 year or less—93 per cent.[2] These figures for *reserve* banks and for reserve and commercial banks should be compared with those in Table 32 for commercial banks. The latter held a smaller proportion in maturities of less than 1 year and more in maturities of 1 to 10 years and of 10 years or longer than federal reserve banks.

The purchases of securities by individuals have been concentrated primarily in savings bonds that mature in 10 to 12 years from date of issue but may be redeemed within a brief time of issue. But they also held 12 per cent of the securities of 1- to 10-year maturities and 13 per cent in maturities of 10 years and over (Chart 21). Nonfinancial corporations (*e.g.*, manufacturing) invested primarily in savings notes

[1] *Treas. Bull.*, November, 1946, p. 50.
[2] *F.R.B.*, October, 1945, p. 1023.

(largely for tax anticipation) and in marketable securities of 1 year or under. Their heavy investment in these relatively short-term securities reflects both a temporary interest in government securities and a preparation to meet future tax bills.

20.9. HISTORICAL DECLINE IN MATURITIES. Maturities of government issues, on the average, were substantially shorter than in 1938;

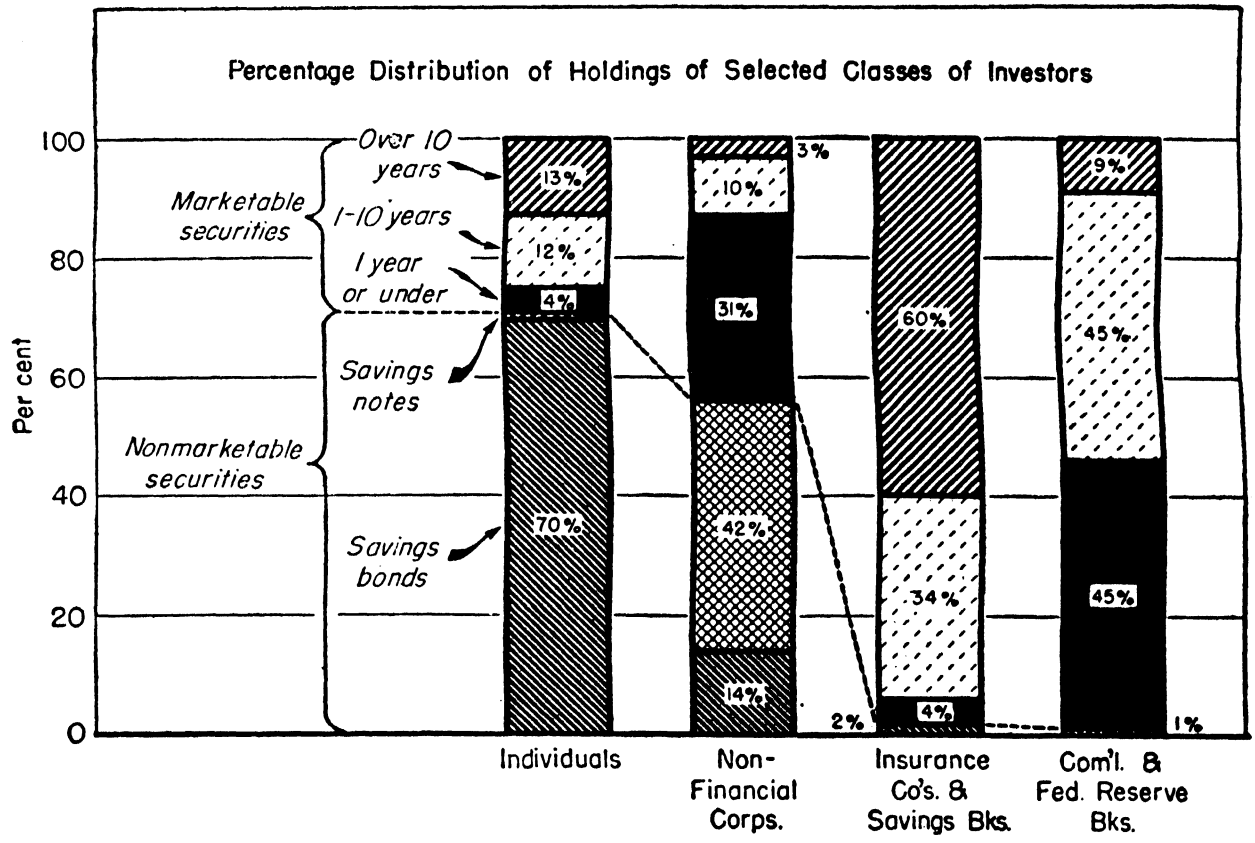


CHART 21.—Treasury securities tailored to needs of investors. (*Source: Letter of the Under Secretary of the Treasury, Daniel Bell, to author, Oct. 9, 1945.*)

though the decline may not have been so great as is generally assumed. Under Secretary Bell stated that the length of maturity of the interest-bearing debt on Dec. 31, 1935, was 8 years 7 months; on Dec. 31, 1938, it was exactly 10 years; on Dec. 31, 1939, 10 years 6 months; on June 30, 1945, it was 7 years 8 months. "It is submitted, however, that the maturity structure of the public debt is more significant than the average maturity inasmuch as public debts of widely differing maturity structures can have the same average maturity."[1]

Undoubtedly, the wartime reduction of average maturities will prove troublesome to the Treasury in the postwar period—all the more so because the national debt is six times as large as in 1939. A decline in the average maturity from 10 years 6 months to 7 years 8

[1] In a letter from former Under Secretary D. A. Bell to the author, Oct. 9, 1945.

months would not be so serious if the debt had not grown so much and if the *structure* had not changed so fundamentally. The very large expansion in issues of 1 year or less has especially tended to reduce the average maturity of government debt. If the average of 10 to 10½ years had been lowered by a rise in securities maturing in from 5 to 10 years, the immediate problems would currently be of a less serious nature.

The structure of the debt is given for 1943, 1944, 1945 in Table 33.

TABLE 33.—ESTIMATED DISTRIBUTION, BY EARLIEST OPTIONAL REDEMPTION DATE AND BY MATURITY, OF INTEREST-BEARING SECURITIES ISSUED OR GUARANTEED BY THE UNITED STATES, JUNE 30, 1943, 1944, AND 1945
(In billions of dollars)

Term to redemption or maturity	June 30, 1943	June 30, 1944	June 30, 1945
Classified by years to earliest optional redemption date*			
1 year or less†	65.0	96.4	117.2
1–5 years	20.7	25.1	34.8
5–10 years	23.1	33.9	41.5
10–15 years	6.6	9.8	11.7
15–20 years	3.7	10.2	19.3
Over 20 years	9.3	11.3	13.4
Special issues‡	11.1	14.3	18.8
Total	139.5	201.0	256.7
Classified by years to maturity			
1 year or less†	33.3	50.0	64.4
1–5 years	24.8	31.8	32.5
5–10 years	33.8	60.4	84.4
10–15 years	18.9	14.6	18.5
15–20 years	4.6	8.4	5.5
Over 20 years	13.0	21.5	32.6
Special issues‡	11.1	14.3	18.8
Total	139.5	201.0	256.7

SOURCE: Letter of Oct. 9, 1945, former Under Secretary D. A. Bell to author.

* Whether optional with the Treasury or with the holder.

† Securities redeemable at the owner's demand (United States savings bonds, Treasury savings notes, adjusted service bonds, and depositary bonds) have been classified as redeemable in 1 year or less.

‡ Held by United States government agencies and trust funds.

Table 34 gives succinctly the percentage distribution of interest-bearing debt according to maturities. In general, long- and medium-term issues are of less importance than in 1919 and earlier years, and short-term issues of greater importance than in those years. In fact the

inclusion of nonmarketable bonds in long-term issues tends to inflate amounts indicated in the column for long-term issues. Approximately 18 per cent of the total outstanding were held in these issues: they may be redeemed within 1 year of issue. They are much more important than they were before the war.

TABLE 34.—PERCENTAGE DISTRIBUTION OF TREASURY ISSUES ACCORDING TO MATURITIES, 1919, 1939, 1945
(End of fiscal year)

Year	Bonds (long-term)	Notes (medium)	Short-term (bills and certificates)
1919	68	17	14
1939	69.1	18.2	3.3*
1945	59.6	13.3	19.9*
1946	63.0	9.3	19.4*

SOURCE: *Treas. Bull.*, October, 1945, p. 22, and August, 1946, p. 22; and S. E. Leland, "Management of the Public Debt after the War," *A.E.A. Supp.*, Part 2, June, 1944, p. 102.

* Exclusive of special issues.

20.10. SUMMARY. In accordance with our plan—stated in the introduction to this part of the volume—we have presented in this chapter many indispensable facts pertinent to debt management, the subject of Part VII. Let us tie together a few of the main threads.

In general, then, from the viewpoint of debt management, the distribution of issues of our debt in the early postwar period of World War II (as *between* short- and long-term issues) is less satisfactory than it was in the same period after World War I—whatever improvements in distribution were made in the interwar period have been lost. We should note, however, that special issues constituted 7.3 per cent of the debt outstanding in June, 1945 (and 8.3 per cent in June, 1946)—since these issues offer no problem of refinancing this is an encouraging percentage—whereas in World War I special issues were of no importance.[1] In addition, we also noted the new interest among purchasers of short-term issues and the large amount of nonmarketable securities outstanding. Financial institutions currently hold a smaller proportion of the debt than in the period after World War I; but their share of marketable issues is much larger than their share of all interest-bearing securities. In short, the increase in amount and the reduction in maturities are unfavorable factors; the opening up of new markets and the increased relative stake of nonfinancial buyers are favorable factors, *i.e.*, if the latter prove to be firm holders of government securities.

[1] Figures from *Treas. Bull.*, October, 1945, p. 22, and August, 1946, p. 22; and Leland, *op. cit.*, p. 102.

Chapter XXI

How Large Is the Debt?

INTRODUCTION

To discuss management adequately requires further analysis of the size of the debt. On June 30, 1946, the national debt was $269 billion.[1] This is not, however, an all-inclusive figure. We should not leave out of account the following:

1. Early in 1947 there were about $28 billion of currency outstanding. This is strictly an obligation of the government; but since no interest is paid on this debt and since the government is not likely to be called upon to redeem a substantial part of the money outstanding, this part of the debt may be dismissed.

2. Government obligations on old-age insurance are more serious. Under the amendments to the Social Security Act of 1939, old-age insurance was put under a modified pay-as-you-go basis. In the early years, the government meets its obligations by borrowing from the Old Age Survivors' and Insurance Fund and, hence, becomes increasingly indebted to the Fund. A substantial debt has been incurred already; and this should rise to many billion dollars before the fund is in balance on an actuarial basis.[2]

3. The government has assumed large obligations under various retirement and insurance programs—to meet a schedule of benefits that are financed by a 5 per cent pay-roll tax in addition to contributions by the government. According to the report of the Board of Actuaries of June 30, 1944, the cost to the government was 7.79 per cent of the pay roll of the employees covered by the system—on the basis of the estimated pay roll as of June 30, 1944, the annual cost to the government was approximately $455 million. This is exclusive of cost of army and navy retirement systems, which are financed wholly

[1] *Treas. Bull.*, August, 1946, p. 22. The estimate for a year later is $260 billion.

[2] These issues were fully discussed in my *Economics of Social Security*, 1941.

by government.[1] In addition we should not leave out of account the large cost to the government of national life insurance: the Treasury covers administration expenses and the excess of 3 per cent over market rates of interest. On June 30, 1945, National Service Life Insurance in force amounted to $124 billion.[2]

Two important offsets to these heavy obligations were (1) a rise in Treasury cash of $20 billion or more. (Actually, on June 30, 1945, the Treasury's cash balance had risen to the record level of $25 billion.[3] And (2) government wartime assets, even though salable for only a fraction of its estimated $60 billion cost.

NONRECORDED DEBT

21.1. SOCIAL SECURITY. We listed as unrecorded items old-age insurance and veterans' insurance. Although unrecorded as public debt, these are nevertheless obligations of our government. Therefore, to understand the full size of our public debt, we must allow for the debt that has been incurred and is likely to be incurred, in connection with social security and veterans' insurance.

The difficulty arises for social security because under a modified pay-as-you-go plan the Old Age Survivors' and Insurance Fund, without recourse to general revenues, will fail to meet the demands to be made upon it in later years. Under the original social-security plans of 1935, a pay-roll tax of 6 per cent (it was estimated) would have yielded a reserve of $50 billion by 1980. At that time, with a reserve yield of $1.5 billion annually, it was anticipated that outgo and income would be equal. Under present rates and policies it is unlikely that a reserve of more than $10 billion will be accumulated at any time. The proportion in our population of those aged 65 or over is increasing, and by 1980 estimates put it at almost three times the number before the war. The cost of the program increases not only with this proportional rise, but it will also increase as coverage expands and benefits are liberalized. The country may be confronted with a deficit of several billion dollars annually on old-age insurance

[1] Figures kindly supplied by R. R. Reagh, government actuary, in letter of April 29, 1946, to the writer.

[2] *Annual Report of The Administrator of Veterans' Affairs*, 1945, pp. 92–95.

[3] In 1946, this cash balance is gradually being whittled down through an exchange of cash for outstanding Treasury obligations. In the 2 years ending June 30, 1947, the government expects to have reduced its cash balance from 24.7 to 2.5 billion dollars. *The Budget*, 1948, p. A-8.

account. This deficit may reach a billion dollars annually by the 1960's, 2 billion dollars by the 1970's, and possibly between 3 and 4 billion dollars by 1980 and in subsequent years. Under present rates and policies, the total deficit over the next 100 years will be very large —perhaps as much as several hundred billion dollars. But of immediate concern for us is not the size of this deficit a hundred years from now, but its present value—a result obtained by discounting the amounts involved at appropriate rates of interest. Sums due 10 to 50 years from now may be considered as of our concern.

Although not in a position to give a precise figure, nevertheless we can be sure of one thing: the public debt is substantially larger than the record shows it to be—this is because of the unrecorded obligations of our government. Our reserves against old-age insurance are substantially less than the present value of our obligations—and under current policies, unfortunately instituted in 1939, the gap will widen. We have borrowed from the Old-age Reserve Fund to meet current obligations, and later the Fund will have to lean heavily on the Treasury. [*In the forefront in* 1939, *favoring this change in policy from reserve financing in social security to pay-as-you-go, were Senators Vandenberg and Taft (not to mention Mr. John Flynn), all avowed opponents of deficit finance, ironically enough urging a policy in social security which in fact results in a rise of our public debt.*]

This is the moment to make the following point: claims on the Old Age and Survivors' Insurance Fund are an obligation due in the future, and when they become due they may be financed not through borrowing but taxation. Nevertheless, they represent a debt today, even if not entered on our books. Whereas insurance companies have adequate assets against their future liabilities, the government of the United States has more liabilities than assets on old-age insurance account. This excess of liabilities is a debt against which management must provide funds, even as it must provide funds against the $260 billion debt standing on our books as of June, 1947. The difference between the Treasury obligations on insurance and the ordinary obligations of the government is that obligations have already been incurred on insurance, whereas for most other functions obligations are not really incurred until the appropriations are voted each year.[1]

21.2. VETERANS' INSURANCE. Another future government obligation, and one not included in the figure of our national debt, as of

[1] The actuarial and financing aspects of old-age insurance are fully discussed in my *Economics of Social Security*, 1941.

June 30, 1947, is veterans' insurance. Veterans are entitled to a maximum life insurance of $10,000. They are not charged for expenses of administration or for the extra insurance costs associated with the hazards of war. The latter is suggested by the fact that premiums are based upon the American Experience Tables of Mortality. An interest rate of 3 per cent is assumed. On June 30, 1945, insurance outstanding amounted to $123.6 billion.[1] *The deficit on account of World War* II *insurance over the years is likely to be of many billion of dollars. Here again, then, the national debt is larger than revealed by the published debt figures.* This debt is contracted now but to be paid later.

OTHER OBLIGATIONS

The unrecorded government obligations just discussed lend themselves to definition and assessment in comparison with certain miscellanea which are difficult to list and assess. Not generally included as part of the public debt are all kinds of obligations that are the direct result of the war. Such are, for example, refunds on taxes collected, obligations under the GI Bill, special concessions made to agriculture, future bonuses, etc. We may all hope that these obligations will be financed out of taxes. Yet until this is accomplished—until the required funds are provided—they represent components of a rising debt. *When definite obligation has been incurred without provision of financing* (*e.g., the excess of old-age benefits over pay-roll taxes*), *a genuine deficit is the result.* When the obligation is not incurred until later (*e.g.*, appropriation for the Army in 194x), we have no genuine deficit until incurred.

In these two preliminary chapters we obtained useful information on certain aspects of the components and magnitude of the debt. Now we can proceed to a discussion of management of the debt.

[1] *Annual Report of The Administrator of Veterans' Affairs*, 1945, p. 26.

Chapter XXII

Debt Management: Distribution of Issues, Rate of Interest, and Prices[1]

MAINTENANCE OF PRICES

22.1. THE GOVERNMENT'S STAKE IN THE PRICE OF GOVERNMENT SECURITIES. Whether we own any government securities or not, each of us has a stake in the future price of government securities, because of the close link between the price of government securities and the economic life of the nation. Many anticipate that the government will not be able to maintain present prices of government securities, *i.e.*, that the rate of interest will rise. Obviously, the price of government securities depends on their supply and demand. If supply exceeds demand at a given price, then prices will fall. Supplies offered will consist both of securities outstanding offered for sale and any new issues. If, in response to a given decline in bond prices, the response of demand is large, *i.e.*, demand is elastic, the price decline is not likely to be large.

Certainly there will be some disgorging of government securities in the postwar period, as after World War I. At that time the government removed its peg from the security prices. After World War II, the government is not likely to stand by while the rate at which it borrows rises. It has been said that the government has no strong interest in the prices of its issues—that it is no more interested in security prices than a real-estate dealer is interested in the price of a house after he has sold it. Actually, the government cannot afford to take this position: its stake in the country's economic life is too great. It will have to borrow

[1] The reader should consult, especially, C. Shoup, "Postwar Federal Interest Charge," *A.E.A. Supplement*, Part 2, June, 1944, pp. 44–85, and S. E. Leland, "Management of the Public Debt after the War," *ibid.*, pp. 89–132, and a very interesting paper by R. A. Musgrave, "Credit Policy and Debt Management" (unpublished), Feb. 27, 1947.

additional sums in the future. And, even more important, a large proportion of its debt requires renewal or conversion each year. If the rate rises, then the cost of wartime debt will also rise.

In addition, a price decline may be cumulative. If a 2½ per cent bond falls from 100 to 95, then a general expectation of further declines may set in. For this and other reasons, the government is prepared to support the market for its securities. Through sales to government agencies, through the creation of additional money and hence of demand, and through the use of Treasury cash balances, the authorities impart to the market an element of intensity and elasticity of demand.

The average rate of interest may rise, it should be observed, even if the price of identical or roughly identical issues is unchanged. Thus should the market for short-term issues narrow, the government may have to convert part of its short-term low-interest rate debt into longer maturities which pay higher rates of interest. If, on the other hand, longer term securities in the possession of banks on their maturity are replaced by short-term securities, as seems likely, the average yield for all outstanding issues may fall.

22.2. DISTRIBUTION OF PUBLIC SECURITIES BY MATURITIES. Our interest in the distribution by maturities stems from the following considerations:[1] (1) For the present and probably for some time to come, the greater the relative amounts of short-term securities, the lower the average rate paid. (2) The greater the recourse to short-term issues, the larger the amounts held by banks and, therefore, the greater the volume of deposits outstanding. (It will be noted that the banks held a larger proportion of maturities up to 10 years and a smaller proportion of maturities of more than 10 years, than all investors.) (3) It is generally held that with large short-term issues outstanding the government is confronted with crises at each renewal, one result being a manipulation of the rate of interest.

22.3. POTENTIAL SALES. *Issues held by Federal Reserve banks, government agencies, and trust funds.* In order to estimate potential sales, we need to consider first the distribution of government securities.[1]

When we speak of potential sales, we can write off the $50 billion held by government agencies and Federal Reserve banks, for large amounts of these probably will not be disposed of. Actually, in the year

[1] For the facts, see Ch. XX, pp. 226–229.

ending June 30, 1946, they increased their holdings from 47 to 53 billion dollars.[1] The trust and insurance funds will probably continue to grow, although with significant amounts of unemployment, the Old Age and Survivors' Fund will grow less rapidly, and the unemployment compensation reserves may have to sell securities for cash. In the year ending June 30, 1946, their investments in public securities rose by $4.2 billion. Various insurance funds, *e.g.*, National Service Life Insurance, can be expected to expand. On June 30, 1945, various life insurance (war) funds, retirement funds, and postal savings held $6.6 billion of public securities. The presumption is that these funds will continue to grow for many years. The federal old-age fund of $8 billion late in 1946 may well continue to expand for many years, though here future legislation will be decisive. The unemployment trust fund, of $7.5 late in 1946, may well decline rather than rise in value. (It declined by about 1 per cent from October, 1945, to October, 1946.)[2] Federal Reserve banks will sell a substantial part of the government securities they hold only to check a serious inflation. But to check a serious inflation, more powerful weapons of monetary control (*e.g.*, changes in reserve requirements) are necessary and are available, and others might be provided. Sales by reserve banks, even for the purpose of controlling the money market, are not likely to be welcomed in a weak bond market. Actually, reserve banks would do much better to hold larger amounts of long-term securities if they intend to have recourse to open-market operations on the selling side—to deprive the market of cash. In December, 1946, they held $23 billion of United States government securities, of which only $468 million were of maturities of 1 to 5 years, and only $580 million in maturities of over 5 years.[3]

22.4. POTENTIAL SALES OF INTEREST-BEARING DEBTS BY COMMERCIAL BANKS. Commercial banks holding about three-tenths of the total amount outstanding will play a decisive part in the market for government securities. In former periods of boom, the commercial banks showed a disposition to desert the bond and bill market for higher yielding assets. In part, the explanation was the pressure of demand for bank funds, in part, the fear that rates would rise and securities depreciate in value.

[1] *Treas. Bull.*, August, 1946, p. 49. By November, 1946, there had been a further rise of $1.6 billion. *Ibid.*, February, 1947, p. 48.

[2] *Ibid.*, March, 1946, p. 23; *Social Security Bulletin*, December, 1946, p. 54-55.

[3] *F.R.B.*, February, 1947, p. 163.

In the future, on both grounds, the pressure is likely to be less than in the past and for the following reasons:

1. The government has learned how to provide the banking system with reserves adequate to cover increased demand from private sources, and to enable the banks to hold on to their Treasury issues; and restrictions on monetary policy emanating from external causes are not likely to be serious because our gold reserves are very large, our international position is strong, and rigidity of exchanges is an institution of the past. This country can expand its deposits without too much concern over international repercussions. What is more, industry is so liquid that excessive demands on the banking system are not likely to be made.

The financial structure of industry has changed greatly since World War I. In this connection, the facts in Table 35 are of some interest.

TABLE 35.—SOURCES OF TOTAL MONEY SUPPLY
(In billions of dollars)

June 30	Total money supply	Provided by credit and bank assets other than gold, Treasury currency, and United States government securities
1919	35.6	25.0
1939	64.1	21.6
1944	151.0	21.6

SOURCE: Report to the Senate Committee on Banking and Currency, *Basic Facts on Employment and Production* September, 1945, p. 24.

They suggest that private demands on banks are not of first-rate importance in the determination of monetary supplies outstanding: In 1919, they accounted for about 70 per cent; in 1939, for nearly 34 per cent; in 1944, for 14 per cent.

2. Banks need not have great fears concerning a depreciation of security prices resulting from a rise in the rate of interest. (1) Governmental control of monetary supplies will tend to keep prices of securities up. (2) Once the banking system is convinced that the government will use every weapon at its disposal to maintain security prices, the banks will not be tempted to sell because of fear of a loss. And if the banks are convinced, the task of the Treasury will be greatly facilitated. (3) The commercial banks do not stand to lose from a rise in the rate of interest. It has been shown that they will quickly recoup

any loss on assets resulting from a rise in the rate of interest.[1] With 64 per cent of the issues held on June 30, 1946, maturing in less than 5 years, the banks would not have to wait long in order to redeem issues at par.[2]

In short, commercial banks are not likely to dispose of large amounts of Treasury issues. If the government repays a substantial part of its debt, which is unlikely, or (and) if with large incomes and savings nonbanking outlets grow, then the banks on balance may be sellers. Even under these conditions, the banks and others are likely to compete for available supplies, sending prices up and interest rates down.

Repayment of about $18 billion of debt in 1946, a large part of which ($14 billion) was held by banks, is explained by a reduction of Treasury cash ($23 billion): the cash was used largely to liquidate Treasury issues.[3] This is not really debt reduction.

In the discussion of future market prices, we have thus far concluded that commercial banks, Federal Reserve banks, and federal agencies and trust funds, which account for about one-half of the federal debt, are on balance not likely to be sellers. Debt management is not likely to be made difficult by sales of banks and trust funds. This conclusion is valid even if allowance is made for the large rise in loans in the eighteen months ending Dec. 31, 1946.[4] We turn next to the over-all potential sales.

22.5. OVER-ALL POTENTIAL SALES. Only the roughest estimates of sales in the next 10 years can be made. Much depends on economic and political conditions. There are certain factors, however, that point to significant future sales by individuals and corporations. We list them as follows:

1. Large savings were made in part in order to build houses and purchase consumers' goods in the postwar period.

2. Business savings, in no small part, are expected to be used to purchase nonliquid assets that were not available during the war. Although business' liquidity was eminently satisfactory in the war period, it is not expected that wartime ratios of liquid and nonliquid

[1] P. A. Samuelson, "The Effect of Interest Rate Increases on the Banking System," *A.E.R.*, March, 1945, pp. 16–27.

[2] *Treas. Bull.*, August, 1946, p. 52. The percentage was 57 in November, 1946. *Ibid.*, February, 1947, p. 50.

[3] *Treas. Bull.*, February, 1947, pp. 17, 24, 48.

[4] *F.R.B.*, March, 1947, pp. 235–243.

assets will be maintained.[1] In December, 1941, nonfinancial corporations held $13.9 billion in cash and $3.9 billion in public securities, the equivalent of almost one-quarter of their total assets. By March, 1945, they had $24.8 billion in cash and $19.8 billion in public securities, the equivalent of almost 45 per cent of their assets. Their accrued income tax was 7.1 and 16.1 billion dollars, respectively. Undoubtedly part of the additional amounts invested in liquid assets will be used up in the reconversion, especially with the reduction of tax liabilities.[2] From July, 1945, to January, 1946, however, demand deposits of business actually rose from 42.5 billion dollars to 43 billion dollars.[3] The liquidation of Treasury issues by corporations in 1946, noted below, reflects pressure to convert liquid assets into illiquid assets.

3. A large part of the securities held by individuals and business are short term: apparently they are not being held for long-term investment. Early in 1946, "all others" (predominantly individuals and nonfinancial corporations) held $1.8 billion of Treasury bills (3 months); $11.5 billion of Treasury certificates (less than 1 year); $3.76 billion of Treasury notes. Of $50 billion of public marketable interest-bearing securities, "all other" investors held $15.6 billion of securities in all, first callable within 1 year and $6.6 billion additional first callable within 5 years.[4]

A comparison of maturities of marketable interest-bearing securities held by "all others" (individual and nonfinancial business primarily), with the distribution for the total amount outstanding, reveals that "all others" held significantly less of maturities of 10 years and less and significantly more of maturities of over 10 years. Table 36 presents the relevant figures. And the reader should also consult Table 38, in Sec. 22.7, which reveals relatively small amounts of short-term issues held by individuals.

4. Included in issues held by private investors in June, 1946, were about $56 billion of nonmarketable issues—savings bonds and notes—primarily held by individuals, but also to a substantial degree by business. It must be assumed that these securities, which account for about one-half of the amounts held by individuals and nonfinancial business, will be redeemed when they mature, not before. An increasing proportion of redemptions to *new* issues has occurred in recent

[1] Seymour E. Harris, *Inflation and the American Economy*, Ch. XXVI, 1945.
[2] *F.R.B.*, October, 1945, p. 988.
[3] *Ibid.*, May, 1946, p. 470.
[4] *Treas. Bull.*, April, 1946, p. 51.

years, the percentages being 11, 20, and 41 per cent, respectively, in calendar years 1943, 1944, and 1945; and 82 per cent in the postwar year 1946. The ratio of current redemptions to amount outstanding is of course much less. For all issues of United States savings bonds the amount outstanding at the end of December, 1946, was 46.6 billion; and $16.4 billion, or close to one-quarter of the amount issued, had been redeemed.[1]

TABLE 36.—PERCENTAGE DISTRIBUTION OF PUBLIC MARKETABLE INTEREST-BEARING SECURITIES, JUNE 30, 1946

	All	All others
Within 1 year	34.1	32.2
1–10 years	35.1	24.4
10 years or more	30.8	43.3

SOURCE: *Treas. Bull.*, August, 1946, p. 52.

Signs of indigestion are evident in the market for savings bonds, although less so for series F and G, held by large-income groups, than for series A–E. The increasing rate of redemption to sales is indicated by the following (Series A to G):[2] (Redemptions exceeded sales of series E by $1 billion in 1946).

(In billions of dollars)

	Sales	Redemptions
Fiscal 1944	15.5	2.4
1945	14.9	4.3
1946	9.6	6.7
Calendar year 1946	7.4	6.0

Since, however, even in the year 1946, sales exceeded redemptions, no immediate concern need be felt. The ratio of redemptions to amounts outstanding will depend largely on economic conditions: net sales will probably be larger in depression than prosperity.

5. A final consideration that suggests potentially large sales is a substantial inflation.[3] Should inflation on a substantial scale develop—whether brought on by wage inflation, relaxation or breakdown of controls, or an investment boom—the disposition to convert govern-

[1] Calculated from *Treas. Bull.*, February, 1947, p. 36.
[2] *Treas. Bull.*, August, 1946, p. 37, and February, 1947, p. 36.
[3] *Cf.* Secs. 22.8 and 22.9, where the inflation problem is discussed more fully.

ment securities, which yield a fixed return, into assets that will rise in value with inflation, (*e.g.*, common stock, real-estate, goods) will greatly be strengthened.

In general, the history of 1946 confirmed our expectations. The largest redemptions were by banks and corporations. The decline of bank portfolios has already been explained. With gross capital formation exceeding $30 billion in 1946, with tax liabilities reduced, with pressure evident in the large expansion of loans by business, it is not surprising that corporations and associations reduced their holdings of government securities by $4.8 billion, or one-sixth, in the 14 months ending November, 1946.

Insofar as the next 10 years are highly inflationary, these considerations point to the possibility of large sales by individuals and business. Against these, we can put two important factors that would militate against rapid liquidation. (1) With larger incomes, savings are likely to remain at a higher level. (2) We have had a large growth of liquid assets other than government securities. Individuals and business, when confronted with calls for spending, may well draw on their cash and deposits as a partial alternative to selling securities.

TABLE 37.—FEDERAL GOVERNMENT SECURITIES AND DISPOSITION
(In billions of dollars)

	(1) Amounts held, Nov. 30, 1946	(2) Annual net sales (−) or purchases (+)
Federal trust funds and agencies	31	+2 to +1
Banks—commercial and federal reserve	100	+8 to −15*
Individuals	63	+6 to −5
Other corporations and associations	24	+1 to −6
Insurance companies	25	+2 to 0
Savings banks	12	+1 to 0
State and local governments	6	0 to −1

SOURCE: Col. (1): *Treas. Bull.*, May, 1946, p. 50.

* Maximum sales, net, for reasons indicated in text are put at $5 billion, annually.

With these preliminary remarks out of the way, we turn to Table 37. About all to be gained from its analysis is an indication of possible range of *annual sales* over the next 10 years. In making these estimates, we take into account the amount of securities held by each class of investor at the end of the war, the absorption of each group in the 2 years ending Dec. 31, 1946, and the probable range of savings in future years. It is also assumed that the commercial banks absorb amounts disposed of by the other classes of in-

vestors, or dispose of amounts absorbed by the other groups. This is subject to the reservation that the banks in a period of 10 years would not dispose of more than one-half of the public securities held at the end of 1945. The banks will have to absorb net sales by other investors, *and by government.* For any one year, the net movements may exceed the annual *average* estimate. In 11 months of 1946, for example, the banks' portfolios declined by $14 billion, the explanation being an exchange of Treasury surplus cash for government securities. This episode is not likely to be repeated.

The great unknown is economic conditions. At high postwar incomes, it may be assumed that net individual savings will be substantially less than in the war—perhaps $20 billion as compared with $40 billion in 1944 and 1945. In periods of peacetime prosperity, savings have fluctuated from 9 to 12 per cent of disposable income. At incomes of $150 billion and disposable incomes of $135 billion, this would give savings of $15 billion. At the high incomes assumed, however, a reasonable figure would be $20 billion. At low incomes, savings may drop to between 5 and 10 billion dollars. In general, it is assumed that nonbanking investors will absorb securities net in periods of prosperity and dispose of them in periods of depression. In depressed conditions, they may then well dispose of government securities, as they may in the early period of availability of consumer goods. The limits of $10 billion per year of disposals by nonbanking investors (or purchases by banks) indicated in Table 37 is probably much too high. If annual net savings in depression are 5 to 10 billion dollars, it is not likely that $10 billion of government securities will be sold (net) by nonbanking investors. But here allowance should be made for new issues by government. The net effect on each group will vary in response to changing business conditions. Developments in 1946, after this paragraph was written, support the position taken here.

Let us return to our high-income economy. Individuals will profit greatly from increased income and savings, and there will be relatively small offsets in diversion to markets, other than the government bond market, for the additional funds. Life-insurance companies and savings banks, however, will be confronted with increased demands by nongovernment borrowers for new funds made available. Other corporations and associations will also be confronted with increased demands for funds in periods of prosperity.

In short, possible ranges for nonbanking lenders are annual sales of $10 billion and annual net absorption of $12 billion; and for commercial and reserve banks annual absorption of $8 billion and sales of $15 billion. Actually, the maximum annual disposal figure of banks is put at $5 billion. Estimates of net absorption or disposal of each group are based upon holdings at the end of 1946 in relation to normal amounts of cash and liquid assets, the absorption power as evidenced in 1944 to 1946, and the assumed effects of prosperous (and depressed) conditions upon savings and use of funds.

Under prosperous postwar conditions from September, 1945, to November, 1946, there have not been any large changes in distribution. The net absorption was $1 billion; all groups but "commercial banks and corporations

and associations," which disposed of $12.3 billion of government issues, added to their holdings.[1]

FUTURE INTEREST RATES

22.6. SHIFT TO LONG-TERM ISSUES? In this and earlier chapters,[2] the need of holding interest rates down has been noted; and in the last 15 years the government, through monetary expansion and through its influence on demand for funds, has managed to keep rates down. Price control in the war years has also helped.

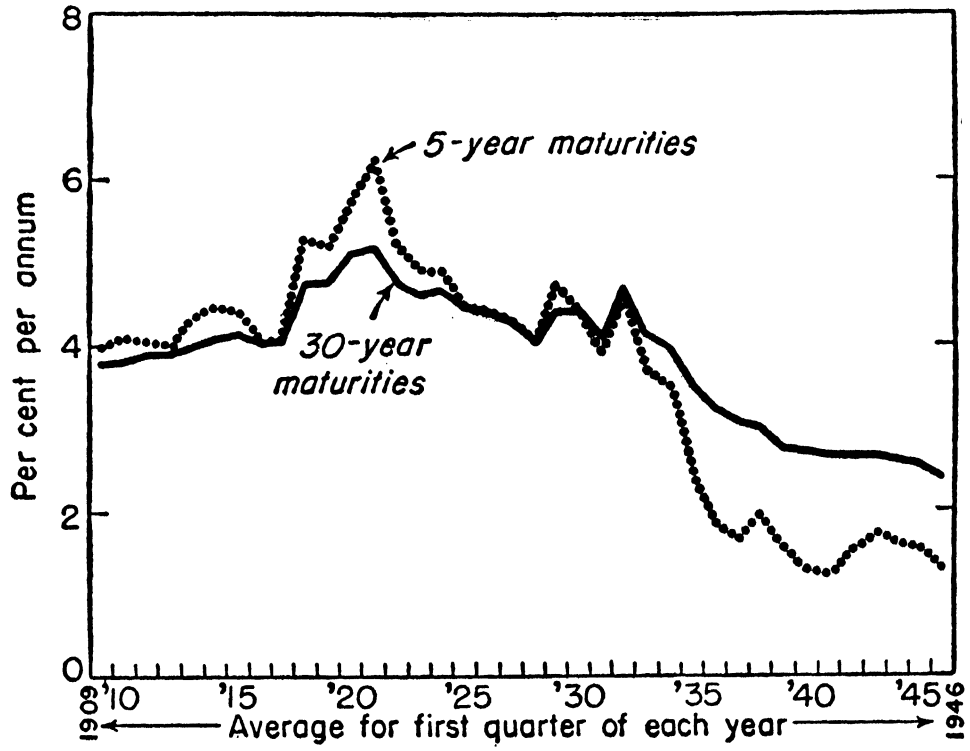


CHART 22.—Basic yields of corporate bonds for selected maturities. (*Source: Survey of Current Business.*)

In the future, much will depend on the structure of rates. In 1945–1946, average rates were less than 2 per cent. Large issues of short-term securities contributed importantly to the low average rate. Since maturities of 10 years or over were no longer available to them, banks absorbed short-term issues.

In the postwar years, the rate structure may well change. In 1917, short-term rates rose above long-term rates and remained higher through 1923. From 1900 to 1942, short-term rates have been in excess of long-term rates for 20 years, identical for 9 years, and less than long-term rates for 14 years. In more recent years, however, short-term rates have generally been lower than long-term rates. Chart 22 indi-

[1] *Treas. Bull.*, February, 1947, p. 48. Other corporations excludes financial corporations.
[2] See especially Secs. 3.15 to 3.18 and 12.1, 12.6.

cates clearly the large decline of relatively short-term bonds relative to that of long-term issues for the years since 1920.

As early as 1925, Keynes was aware of the increased demand for short-term securities and the desirability of satisfying the market demand.

> I see nothing unsafe in the fact that the amount of short-dated debt falling due for renewal year by year is one figure rather than another figure. My criterion would be determined by the amount of debt which could be kept floating one year with another in a short-dated form at a lower average rate of interest than if it were in a long-dated form. I believe that the amount that could be kept floating on that criterion is very large, simply for the reason that there are a large number of holders of funds, particularly banks, to whom it is so advantageous to have debt which is regularly maturing that they are prepared to accept a lower rate of interest than on debt which does not mature in that way.[1]

A movement from short-term to long-term issues would raise the interest cost of public debt. Unless the government continues to segregate the markets, banks will tend to allow short-term issues to run off and will buy long-term issues. As was indicated earlier, however, it is not likely that banks will desert the short-term market on a grand scale. If the government convinces the market of its ability to stabilize long-term rates, there will be little reason for large differentials between short and long term. This follows because the differential in favor of higher rates on longer maturities is largely a payment for risk involved in holding longer maturities. The government may the better be able to convince the market of its capacity to stabilize rates, and actually to stabilize them, if commodity prices are under control. Professor Samuelson suggests that the government, in the meanwhile, capitalize on the gullibility of investors (in the sense that they persist in counting on rising rates and that they therefore prefer liquid funds) and continue to rely largely on short-term issues.[2]

In the years 1944–1946, commercial banks have shown less interest in short-term Treasury bills and more in longer terms issues. In fact, beginning in 1943, the commercial banks began to allow Treasury bills, which yield less than ½ of 1 per cent, to run off; and reserve banks began to buy them in increasing quantities. In 1943, banks held about $7 billion; in the middle of 1945, only $2 billion;

[1] *Minutes of Evidence, Committee on National Debt and Taxation*, 1926, p. 282.

[2] P. A. Samuelson, "The Turn of the Screw," *A.E.R.*, September, 1945, pp. 674–676.

the Federal Reserve banks increased their holdings from 2 to 12 billion dollars. Short-term rates might well rise then in relation to long-term securities. Fears of inflation may restrain the banks; but the offer of large amounts by nonbanking investors and assurance of government's intention and ability to maintain long-term rates will encourage the relative movement from short to long-term issues, with an accompanying narrowing of rate differentials. In fact, a narrowing of rates as between short-term securities, on the one hand, and medium and long-term, on the other, developed in 1945 and also in 1946. Rates on the latter two declined relatively to short term.[1]

Should the government redeem long-term issues now held by banks with short-term issues and should their access to long-term issues continue to be restricted, *a moderate change in the structure of rates is possible; the net effect will then not necessarily be a rise in the over-all interest rate.* For reasons already indicated,[2] we should not expect the large changes in the structure of rates, or in rates in general, which occurred after the last war. Indeed, a continuance of high-income levels and large savings in addition to shifts to long-term markets may tend to depress rates more than the movement away from short-term issues will tend to raise the average rate.

In 1946, the computed rate rose slightly, the explanation being (1) the exchange of Treasury cash for short-term securities held by banks (the rise in the percentage of long-term issues yielding high rates), and (2) the increased competition of business for available funds. Deposits actually rose at a rate not much less than in war years; if they had not, rates might have hardened more.

22.7. THE GREAT DEBATE: HIGHER OR LOWER RATES. *a. Treasury policy.* Treasury policy has been expressed in direct plain language. Since 1942, when the Treasury announced a structure of rates from ⅜ of 1 per cent to 1 per cent for 90-day bills and up to 2½ per cent for obligations with a maturity of more than 10 years, it has adhered to a policy of low rates, of large sales to savers at relatively high rates, and absorption of issues—not salable to nonbanking investors—by

[1] *F.R.B.*, June, 1947, p. 721.

[2] On these issues, see especially C. R. Whittlesey, *Bank Liquidity and the War*, N.B.E.R., Occasional Paper 22, May, 1945, pp. 64–74; *F.R.B.*, May, 1945, pp. 466–468; A. Youngman, The Federal Reserve System in Wartime, N.B.E.R., Occasional Paper 21, January, 1945, pp. 43–57, and D. Durand, *Basic Yields of Corporate Bonds*, 1900–1942, N.B.E.R., Technical Paper 3, 1942, p. 16; *Treas. Bull.*, August, 1945, p. 49; and *F.R.B.*, September, 1945, p. 911.

banks at low rates; and it has provided adequate supplies of deposits to enable the market to absorb large amounts. The advantage to the Treasury of low rates and a large floating short-term debt is the saving of interest; another advantage is the increased flexibility that results from maturity of large amounts of debt at short intervals and from the increased opportunity to adapt new issues to the changing market conditions.[1]

In the Annual Report for 1944, Secretary Morgenthau wrote as follows:

> Moreover, the fundamental factors underlying interest rates on Government securities, which apply also to interest rates in other fields, give no indication of a change in the direction of a higher level of rates in the foreseeable future. Continued low interest rates will be a major contribution to economic stability and the maintenance of full employment after the war, for low interest rates stimulate business and encourage new enterprise.[2]

In a similar vein, Secretary Vinson on Nov. 27, 1945, expressed preference for low rates which reduce the tax burden and yield more housing and plant for a given outlay.[3] Early in 1946, there was considerable criticism of Treasury policy. Governor Eccles even commented on the unwisdom of declining rates which would result in further purchases by banks. Replying to these criticisms on Mar. 27, 1946, Secretary Vinson said that the recent declines were not directly due to Treasury policy, and in view of uncertain conditions he was unwilling to make a statement on long-term policy.[4] Actually, a small budgetary surplus in the first quarter of 1946, a sharp reversal from deficits and large sales of *new* issues of the preceding 4 years—and, therefore, a radical change in supply-demand conditions for government securities—accounts for the appreciation, *i.e.*, the fall in the rate of interest. In April and May, the monetary authorities took active measures to stop the decline of rates,[5] and long-term rates (Taxable

[1] See Hearings, Senate Finance Committee, *Public Debt Act of* 1945, pp. 6–14; C. C. Abbott, "Management of the Federal Debt," *Harvard Business Review*, 1945, pp. 100–103; *cf.* R. A. Musgrave, *op. cit.* Dr. Musgrave emphasizes the need for keeping rates down generally and yet allowing rates to fluctuate in part of the total market.

[2] *Annual Report of the Secretary of the Treasury on the State of Finances*, 1944, p. 7.

[3] Yield on taxable United States government bonds, 15 years and over, declined from 2.33 per cent in December, 1945, to 2.08 per cent in April, 1946, rose to 2.28 later in 1946, and declined to 2.19 in May, 1947. *F.R.B.*, April, 1946, p. 411 and June, 1947, p. 721.

[4] House Hearings, 1946, *Extension of the Emergency Price Control*, etc., Vol. II, pp. 1580–1581, 1946.

[5] *Cf. F.R.B.*, May, 1946, pp. 462–468.

Treasury bonds) actually rose from 2.08 per cent in April to 2.28 per cent in September.[1]

In June, 1946, the Federal Reserve Board announced its adherence to a policy of low money rates: the reserve banks were committed to a policy of buying certificates yielding ⅞ of 1 per cent, thus preventing their depreciation. If reserves of member banks should rise excessively, then the board proposed unorthodox methods to treat any resulting inflationary dangers. The board would (1) limit the amounts of long-term marketable securities, both public and private, that any commercial bank may hold against its net demand deposits; (2) require all commercial banks to hold a specified percentage of Treasury bills and certificates as secondary reserves against their net demand deposits; and (3) raise member bank reserves against net demand deposits.[2] The net effect of these measures would be to increase reserve requirements and to immobilize a large volume of short-term securities in Federal Reserve banks. In this manner, the government would keep interest rates down; markets for short-term securities, *i.e.*, low-yielding issues, would be guaranteed.

b. Is a rise in rates necessary? A policy of higher rates is supported in some circles. Several contributors to a Twentieth Century Fund volume urged a redistribution of securities from banks to nonbanking investors.[3] Apparently the technique would be to offer nonbanking lenders terms that would induce them (1) to exchange cash or deposits for securities or (2) to purchase federal securities instead of consumption goods or other assets and (3) to offer special inducements to those who will hold securities for a long period. The American Bankers' Association has been even more explicit.[4] It applauds the policy of the Treasury in exchanging cash balances for government securities (in this manner deposits and outstanding securities are both reduced). Further, it urges banks to scrutinize loans made to holders of government securities. The A.B.A. further proposes that the Treasury issue bonds to genuine savers at rates and terms which would attract them.

The essence of the problem is: Should the Treasury replace a substantial part of the floating debt with long-term issues that yield relatively high rates of interest as an inducement to nonbanking investors? The apparent gains would be a reduction of bank deposits,

[1] *F.R.B.*, June, 1947, p. 721.
[2] *Annual Report of Federal Reserve Board*, 1945, *passim*.
[3] The Twentieth Century Fund, *Financing American Prosperity*, 1945.
[4] Similar views have been expressed by Winthrop Aldrich, of the Chase National Bank.

and cash and the placement of securities with relatively firm investors. With the floating debt substantially reduced, the danger of periodic crises in the government security market and the domination of the money market by the Treasury would be considerably reduced. Many object to a large floating debt on the grounds that it would mean a monetary policy determined in fact by the Treasury, and that the resultant monetary policy would be one compatible with the easy money conditions required by a large floating debt outstanding, instead of a policy determined by broad objectives of economic well being.[1] The arguments for higher rates and a redistribution of securities are unconvincing for the following reasons:

1. We believe that funds moving into Treasury markets in response to rises in the rate of interest do not have a high elasticity. This is suggested by the fact that, although the public holds about 200 per cent more cash and deposits than before the war, it shows no disposition to exchange excess cash, which yields no return, for government securities yielding 1 to 3 per cent. This conclusion is also suggested by the distribution of government securities. It may be held that life-insurance companies, banks, government agencies, corporations, and other business units—and to a substantial degree individuals—determine purchases of government securities largely irrespective of rates. Alternative investments on an adequate scale are not available. If a higher rate, say by 1 per cent, were offered, purchases would not increase greatly, and the investors (*e.g.*, banks) would receive a windfall. Individuals, also, seem to determine the allocation of their liquid assets—as between cash and government securities—regardless, for the most part, of rates, and similarly their allocation of spending and saving. *In fact it is the effect on spending rather than the ratio of cash and public securities held by investors that counts.* Could one believe that a rise of rates of 1 per cent would seriously influence the amount spent on consumption, as against amounts saved in the next few years?

2. (and related to 1). We have adequate liquid resources available to absorb government securities at current, or perhaps even lower, rates. With the large amounts of cash and deposits, and with incomes and savings remaining at a high level, no great concern need be felt about the absorptive power of the market.

[1] New York Times, Apr. 23, 1946, pp. 31, 34; Abbott, *op. cit.*, p. 101; and "Commercial Banks and the Federal Debt," *American Banker*, Vol. CX, 1945, Nos. 226, 227.

3. Excessive concern is expressed over the current distribution of government securities and, in particular, over large investments by banks. But allowance should be made for the increased cash and the rise in the propensity to be liquid—increased holdings by banks are the counterpart of this quest for liquidity. If the public is more disposed to hold cash, then increased investments by banks are not inflationary. Against the rise of deposits associated with banks' purchases of securities is to be put both the rise in real income and the increased propensity to hold cash and deposits. Table 38 sheds further light on this problem. It will be noted there that (*exclusive of nonmarketable savings bonds*—some of which, *net*, may be redeemed) individuals and nonfinancial corporations at the end of September, 1945, held but $9 billion maturing within 1 year or less, out of a total of $259 billion of securities; financial institutions predominantly held those maturing in from 1 to 10 years.[1] Need great fears be expressed concerning the danger of nonrenewal? We do not think so.

TABLE 38.—MATURITY DISTRIBUTION OF HOLDINGS OF GOVERNMENT SECURITIES, BY SELECTED CLASSES OF INVESTORS, SEPT. 30, 1945
(In billions of dollars)

Classes of investors	Nonmarketable securities		Marketable securities maturing:			Total holdings
	Savings bonds	Savings notes	1 year or less	1–10 years	Over 10 years	
Individuals*	42	1	2	7	8	60
Nonfinancial corporations	3	8	7	2	2	22
Insurance companies and mutual savings banks	†	†	1	9	23	33
Commercial banks and Federal Reserve banks	1	1‡	49	49	8	106

SOURCE: Letter to author from Mr. Henry Murphy, Assistant Director of Monetary Research, April, 1946.
* Includes partnerships and personal trust accounts.
† Less than $500 million.
‡ Includes "other" nonmarketable issues.
NOTE: Government securities include securities fully guaranteed by the United States, except those held by the Treasury.

4. We should not leave out of account the unfavorable effect of high rates not only on the disposition to hold government securities—

[1] By November, 1946, individuals and nonfinancial corporations held $14.7 billion in maturities of less than 1 year and almost 10 out of $67 billion dollars maturing within 1 to 10 years. *Treas. Bull.*, February, 1947, p. 49. Total of $259 billion not comparable with the total in Table 38 which excludes some classes of investors.

for a serious rise in rates and a break in the market might shatter confidence and be cumulative in their effect—but also on the economy as a whole.

In fact, higher rates are bound to be a depressant and to discourage investment; and the payment of higher rates by government, even if successful in attracting more funds into markets for government securities, might be at the expense of private investment and spending. This diversion would be desirable only in inflationary periods; and the resulting short-run gains in the fight against inflation should be weighed against the long-run rise in costs to the Treasury.

5. Government securities are in fact quasi-money; therefore, the conversion of money into government securities would not be so anti-inflationary as many assume. One form of money would simply be exchanged for another.[1]

In short, the case for higher rates in the year 1946–1947 seems to be weak. The price to be paid would be altogether too large both for the Treasury and the economy in relation to the gains in sales to "firm" investors. We now turn to the relevant problem of inflation.

IN RELATION TO INFLATION

22.8. INFLATIONARY DANGERS. Debt should be managed, all will agree, in such a way as to preclude inflation. *Many look upon our large and growing debt with disfavor, because they see in it the road to an explosive inflation;* they associate low interest rates and inflation with monetization of the debt (*i.e.*, sale of securities to banks with accompanying expansion of deposits).

Let us examine their viewpoint. They are alarmed at the growth of liquid assets from about $65 billion in 1939 to about $222 billion on June 30, 1946.[2] They are disturbed by the rise of total adjusted demand deposits and currency outside the banks from $33.4 billion in June, 1939, to $109.9 billion in December, 1946. They are conscious that the growth of public debt is the most important factor accounting for the rise of liquid assets, inclusive of deposits and currency. This vast expansion of money had been compatible with moderate price rises only because of a fairly vigorous tax program, an unex-

[1] *Cf.* the able discussion by L. H. Seltzer, "Is a Rise in Interest Rates Desirable or Inevitable?," *A.E.R.*, December, 1945, pp. 831–850.

[2] *F.R.B.*, November, 1946, p. 1237. These totals do not include institutional holdings.

pected rise of savings, and the successful recourse to wartime controls.[1] *Once controls are removed, taxes are substantially reduced, and savings begin to be spent, money will begin to circulate more rapidly. Therefore they see a future beclouded by a dangerous inflationary threat.* Proposals in 1946 for full employment, higher wage policies, and the possibility of a continued growth of debt appeared to them aggravations of the inflationary pressures. The rise of prices in 1946 increased their fears.

22.9. ANTI-INFLATIONARY TACTICS. Inflationary dangers are not to be dismissed lightly. Yet there is another side to the picture that needs to be presented. For one thing, there are, of course, the long-run deflationary dangers about which we cannot be certain but which we cannot afford to overlook entirely; we must at least take into consideration the possibility of deficient demand, of a failure to buy the goods currently produced. *Against the danger of inflation, we should then weigh the even greater danger of deflation.* Should we fail to attain and maintain a high level of employment, then at most the inflationary pressure will create inflationary pockets in a general milieu of deflation; and any support of demand associated with spending of large volumes of past savings and the dishoarding of money will do more good than harm.

We should not of course be unprepared to deal with the inflationary forces if they are unloosed on our economic system: We should rely upon a vigorous and elastic tax system—one as automatic as possible, yielding increased taxes with rising inflationary pressure. We should rely upon controls of inventories, consumer credit, real estate, stock market, and vastly increased control by the reserve banks over reserves of member banks, and an improvement of qualitative controls. We should rely upon responsible trade-union policy, ruling out wage rises that are truly inflationary, *i.e.*, not supported by improvements in productivity.

While discussing the inflation potential, we should press again a viewpoint presented in Chapter X, *viz.*, that except in extreme periods of inflation and deflation, the response of prices to increased monetary supplies is neither so prompt nor so large as is generally assumed. In other words, we may be excessively concerned over the expansion of money. Factors in the economic situation other than monetary changes (*e.g.*, *costs*) are likely to exercise a strong influence on spending. There is, in fact, much evidence that interest rates respond more

[1] *Cf.* S. E. Harris, *Price and Related Controls in the American Economy*, 1945, and *Inflation and the American Economy*, 1945; also *Colwyn Report*, pp. 34–35; *F.B.R.* March, 1947, p. 290.

readily to monetary changes than the price level. Another relevant consideration, which should be mentioned again, is that with increased transactions more money is required; with rising standards of living and lower rates of interest, the ratio of cash to income tends to rise.[1] Given good management, large monetary supplies need not have an explosive effect.

22.10. CONCLUSION. Fear is widespread that, with controls removed and with demands for funds from private sources again renewed, government issues will depreciate in value and that further issues in response to postwar needs will increase this danger. The government has a genuine interest in the price of government securities, both because a large proportion of the outstanding securities have to be reissued or reconverted in short periods of time and because government credit must be maintained at a high level in view of the uncertainties, both political and economic. For these reasons, the Treasury will use every weapon in its fiscal and monetary arsenal to prevent the price of government securities from falling. Even a change in the proportion of short and long-term issues can account for a significant rise in the interest cost of the debt although the yield on identical issues remains unchanged.

The crucial question is: To what extent will various groups of investors tend to retain or dispose of their holdings of government securities? We have noted that banks and government agencies and trust funds, life-insurance companies, and savings banks (which account for about two-thirds of the public debt) will on balance buy rather than sell. Banks in particular are not likely to desert the bond market as they did after World War I: the government, they are reasonably sure (as they were not after World War I), will make heroic efforts to maintain prices and provide adequate reserves; the securities can be carried at cost; losses resulting from a rise in the rate of interest can be recouped quickly; and loans to nongovernmental borrowers are relatively unimportant as compared with earlier periods. The 1946 sales by banks were indeed largely involuntary.

Individuals and especially nonfinancial corporations may dispose of significant amounts in the next 10 years. Their sales will be restrained to some extent by the availability of large amounts of cash

[1] See, especially, H. P. Wald, "The Expanded Money Supply and Economic Activity," *S.C.B.*, May, 1946, pp. 8–15. In an interesting article, Dr. Hart expresses some doubts as to the inverse relation of money supplies and the rate of interest, and of the upward trend in the ratio of money to national income. A. G. Hart, "Postwar Effects to be Expected from Wartime Liquid Accumulations, *A.E.A. Proc.*, May, 1945, pp. 341–351.

and deposits; and the volume of their sales will depend also on the extent of economic revival, on the rate of interest, and the like.

With a rise of liquid assets (inclusive of institutional) from 82 billion dollars to 297 billion dollars and of deposits and money in circulation from 33 billion dollars to 102 billion dollars over a period of 6 years, the fears of inflation are not without basis; and inflation, aside from other effects, makes the maintenance of interest rates more difficult. Liquid assets rose by $8 billion more in 1946.[1]

Surveys of intentions as to use of liquid assets were reassuring: In the city of Birmingham, Ala., for example, 23 per cent of the owners of liquid assets would use them to buy permanent assets (*e.g.*, farms, business), 66 per cent would use them for security purposes (*e.g.*, hard times, old age), and 11 per cent for consumption or indefinite purposes.[2]

There are, however, deflationary dangers that may be even more costly. At any rate, the government should be prepared to deal with large and sudden dishoardings of the vast accumulation of liquid assets; and, although the government is unlikely to use them, the one way, in truth, to control a vast inflation is by emergency controls—the gamut from inventories to prices.

Treasury policy has clearly been directed toward maintenance of low rates. Many now are critical of the low-rate policy on the grounds that it accounts for large issues held by banks and therefore excessive supplies of money. Therefore, they propose higher rates as a means of attaining a redistribution of government securities from banks to nonbank investors. It is not at all clear, however, in the light of the current and prospective supply and demand situation that higher rates are required, or that any practical rise in rates will elicit enough additional demand from nonbanking investors for securities, and discourage demand for goods adequately to justify the increased cost to the Treasury and to the economy of higher rates.

I add this paragraph in July, 1947. We see that the experience of 1946 confirmed these conclusions. The desertion of the security market and the rise of interest rates were surprisingly small for a year of strong inflationary pressures, which could have been restrained by skillful policy. Whatever *temporary* rise in rates occurred could, moreover, easily be explained by monetary contraction imposed by the government.

[1] *Treas. Bull.*, April, 1946, pp. A-11 to A-15. *F.R.B.*, June, 1947, p. 648.

[2] U. S. Department of Agriculture, *The Distribution of Liquid Assets*, Studies 113–114, 1945, p. 30.

Chapter XXIII

Repayment of Debt

23.1. THE ISSUES. The subject of debt management, the main theme of Part VII, comprises the skillful handling of government securities, the distribution of issues, their prices, and maturities—discussed in the preceding chapter—and the problem of debt repayment —subject of the present chapter. The idea of nonrepayment of a debt may shock the uninitiated; therefore the writer hastens to state that nonrepayment of the national debt in no way involves repudiation; no investor is deprived of his principal. "Nonrepayment" simply refers to the arrangement whereby, as issues mature and investors redeem their holdings, new issues of securities are sold in place of the redeemed issues. In other words, the debt is renewed, and in that sense it is not repaid, although owners of maturing securities are repaid or voluntarily accept new issues in exchange for maturing ones.

The subject of repayment embraces many aspects: the rate, the timing, the method, and the repercussions on the economy. (President Roosevelt's last budget speech contained reference to the timing and conditions of repayment.) What the rate of repayment of our $260 billion debt (June 30, 1947) was to be was of wide interest. Repayment is a monetary as well as an immediate fiscal problem; and adverse monetary effects would soon be felt in reduced government revenues. The rate of economic expansion, also, is a relevant issue. Large redemptions, for example, in the years 1866–1893 were countenanced because the country was growing rapidly, but in view of the rapid growth, the burden of repayment might have been reduced had repayment begun later. (We say "might have" here because one cannot be certain of it without first taking into account the gains in savings of interest associated with early repayment and the continued decline in prices.) Other problems of repayment of debt must also be considered. Who pays the taxes? Who holds the bonds?[1] Answers to these

[1] *Cf.* Chs. XVII, XX.

questions suggest another problem—the effects of repayment on spending. Especially important is the distribution of issues redeemed as between the public and the banks: reductions of bank holdings bring deposit contraction.

On the basis of an examination of the history of debt repayment, and an analysis of the many aspects of the question, the case for repayment, except in periods of boom, does not seem strong. This need not, however, be taken on faith. In the following sections, we discuss this problem at length.

A SURVEY OF VIEWS

23.2. ORTHODOX VIEW FAVORS REPAYMENT.[1] This survey is necessarily brief. In the history of economic thought one will find much support for the theory that public debts should be repaid. Much of the support for debt repayment stems from a fear that unless we repay the debt of one war we shall not be financially prepared for the next. Actually, over the last 250 years repayment of debt incurred in one war has generally been less than the rise of debt in the next war.[2] *A policy of repayment should not be accepted too lightly, because the burden of a debt, which otherwise may be light, can become intolerable if repayment is required.* For example, our interest burden at the war's end was about $6 billion; but a policy of repayment, say, in the next 25 years may require a rise in debt servicing of 4 to 5 billion dollars yearly.

Ricardo supported a policy of repayment on the assumption that part of the taxes would come out of income and that the holder of debt would invest the proceeds and thus add to the nation's capital.[3] However applicable these assumptions were for the early nineteenth-century British economy, they are not so germane for our economy today. In Ricardo's time, taxes were largely on consumption, and there was a scarcity of capital. Repayment of debt might then divert resources from consumption to capital. Taxes today are at the expense of savings to a greater degree than in the early nineteenth century. Ricardo's argument is not valid today both because the additional taxes would come, to a significant degree, out of savings, and, therefore, the supply of capital might not be increased as much as he expected; and our economic society may not be so much interested in increasing capital as Ricardo's generation: savings are likely to be too large rather than too small.

In 1926, the Colwyn committee raised similar issues and proposed an acceleration of the rate of repayment of debt. They estimated that it would require 153 years to pay off the British World War I debt with current provision of a £50 million annual sinking fund; fearful of the demands of later emergencies, and not disposed to count on a reduction in the rate of interest as a means of reducing the burden, the Committee proposed an increase in

[1] *Cf.* Ch. IV where views on repayment are also presented.

[2] Dr. N. Kaldor in Sir William Beveridge, *Full Employment in a Free Society*, p. 396, 1944.

[3] Ricardo, "Essay on the Funding System," *Works* (edited by McCulloch), p. 534, 1871.

the sinking fund to an annual amount of £75 million, and later to £100 million. In the Committee's view, this might be achieved without raising taxes; it was their view that repayment of debt would stimulate rather than discourage savings.

Professor Cannon recommended an even more vigorous policy of repayment. He would have the government appropriate £400 million annually over a period of 35 years and repay the debt in 35 years. Professor Pigou also believed that the rate of repayment of debt should be increased. In his view, conditions of borrowing, given the general supply and demand for capital, are related to the confidence in the ability and willingness of the government to honor any obligations that it may incur. Repayment, he held, would raise confidence.

23.3. SOME OPPOSITION TO REPAYMENT. A few voices were raised against the orthodox position. Keynes had doubt that repayment would reduce interest rates further: with rates once brought down to the international level, any further reduction must, he reasoned, await general improvement in the market for money. With repayment, moreover, the *rentier*, in his view, would be inclined to invest in gilt-edged securities. McKenna also criticized the orthodox position; in his opinion, heavy taxation for repayment of debt would involve transfers of potential capital from highly efficient to less efficient hands. Finally, Prof. A. L. Bowley, though favoring a substantial program of repayment, at that early date (in the twenties) recommended diversion of funds otherwise available for financing debt to be used for public investment in depression periods.[1]

In a report written in 1937, the Twentieth Century Fund advocated the repayment of debt. "The Committee . . . recommends that the general goal of government fiscal policy during the next decade should be the reduction of the debt by an average amount of at least $1 billion a year, taking good times and bad together."[2] (This reduction was to begin in 1939.)

President Roosevelt in his last budget message had this to say of debt repayment: "Retaining high taxes on the masses of consumers for general reduction of debt held by financial institutions may destroy purchasing power and create unemployment. But the use of progressive taxes for the redemption of bonds held by millions of individual savers may have a stabilizing influence on incomes and employment. I favor a policy of orderly but steady debt reduction, consistent with the objectives of long-run economic policy.

[1] For views of *Committee on National Debt and Taxation*, 1927, and those of witnesses see, especially pp. 102 *ff.*, 323–341, 391–396; also *op. cit.*, *Minutes of Evidence*, pp. 39 *ff.* (Pigou); p. 59 (Cannan); pp. 132 *ff.*, 480 (McKenna); pp. 139 *ff.*, 266–276 (Bowley); pp. 277–281, 535 *ff.* (Keynes).

[2] The Twentieth Century Fund, *The National Debt and Government Credit*, p. 154, 1937. See also pp. 18, 153. For other views favoring repayment programs, see J. M. Clark, *The Economics of Planning Public Works*, pp. 117–125, 1935; U. K. Hicks, *The Finance of the British Government*, 1920–1936, Ch. XXI, 1938; and H. G. Moulton, *The New Philosophy of Public Debt*, pp. 3, 52–53, 1943. *Cf.*, on the other hand, A. H. Hansen, *Fiscal Policy and Business Cycles*, p. 174, 1941; and Hansen-Perloff, *State and Local Finance in the American Economy*, pp. 289, 293, 1944.

The mistakes in debt management and tax policy after the last war should not be repeated."[1]

TO REPAY OR NOT TO REPAY?

23.4. CASE FOR REPAYMENT IS STRONG IN INFLATIONARY PERIODS. Repayment is in order on both *fiscal* and *monetary* grounds if a significant inflation prevails or seriously threatens. *Then the subtraction of purchasing power through taxation—the proceeds being used to repay debt—will tend to reduce inflationary pressures not only because monetary supplies are reduced, but also because the rate of interest may rise.* (And investment will be discouraged.)

23.5. REPAYMENT UNDER DEFLATIONARY CONDITIONS UNFORTUNATE. It is clear that, with debt repayment, deflationary effects are felt, for insofar as securities held by banks are redeemed, deposits are reduced. If repayment then occurs when economic conditions are not favorable, the results may be unfortunate. *Banks are at liberty to replace securities with other assets; but this is not always easy. And it should be especially difficult in the next few years, with the banks holding* 80 *per cent or more of their earning assets in government securities. Should the government, moreover, concerned over its large issues of short-term securities, be disposed to concentrate redemption on these issues, the possibility of replacement of Treasury issues with other assets is reduced further: banks are always disposed to hold a large proportion of their government issues in short-term securities.*[2] Heavy liquidation of these issues will result in correspondingly severe reduction of deposits. This follows not only because the earning assets of banks are largely concentrated in government securities, making replacement with other assets difficult, but also because with a disproportionate loss of short-term assets the banks are likely to be cautious.

These are the steps, then, by which deflation takes place; the important point is that deflation arises only because the banks do not purchase other assets *pari passu*, with the redemption of Treasury issues.[3] In the highly inflationary conditions of 1946, however, a large reduction in government securities held by banks was accompanied by a substantial rise of commercial loans and deposits.

[1] *U. S. Budget*, 1946, p. XIX.

[2] *Cf. Colwyn Report*, p. 335.

[3] Repayment of debt is possible and may even be desirable, under less than boom conditions, though a rule of thumb would be that the less favorable economic conditions, the less to be said for debt repayment. Repayment under less than boom conditions

Above all, it is emphasized that the rise of deposits since 1940 is accounted for almost exclusively by sales of government securities to the banks. In the 6 years ending Dec. 31, 1945, total deposits adjusted rose $91 billion, and United States government securities held by banks rose by $82 billion.[1] Deposits also rose with open-market operations of the Federal Reserve banks; but these gains were offset by losses associated with the exchange by the public of bank deposits for money in circulation. *If our country experiences a serious deflation of deposits in the late forties and the fifties, this will almost certainly be the result of the Treasury's redemption of public debt held by the banks.* Since Federal Reserve banks are not likely to sell large amounts of debt to the money market, this one source of potential deflation may be ruled out. Deposits, moreover, are likely to rise in response to further gains of gold and inflow of currency notes. Hence a net deflation of deposits is likely to require large repurchases of securities from banks—out of the proceeds of taxes, or cash obtained through sales of securities to nonbanking investors. A substantial decline of deposits is not likely to occur in response to the liquidation of bank loans: the latter are relatively unimportant as compared with government securities held by banks. This does not mean that business depression is out of the question—far from it. But depression will be reflected at that point more in reduced activity of deposits rather than in their net reduction.

In short, the repayment of debt is, as a rule, to be countenanced only under appropriate monetary conditions, i.e., inflationary conditions. And although with a gradual reduction of debt confidence would undoubtedly grow, it would flag far more if repayment were accompanied by deflation and contraction of output. Should demand, moreover, be inadequate, the vital issue would be not debt repayment, or debt stability, but rather the rate at which debt must be allowed to rise.

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requires that the tax burden should be largely on the high-income groups, and especially on surplus incomes, and the bonds about to be redeemed should be in the possession mainly of numerous savers who, upon bond redemption, will forthwith purchase goods. On balance, spending might then well increase. We should not leave out of account, however, the adverse effect of higher income taxes on investment. Gains in consumption should be weighed against these adverse effects on investment; observe that though the latter suffers from higher taxes it profits from rising consumption.

It is not easy to envisage for 5 to 15 years, conditions that would permit a rise of income-tax rates for the purpose of redeeming bonds held by millions of individual or business savers. These savers might dispose of bonds in order to purchase goods or to expand plant, but the probable source of funds for purchases of bonds held by the public would be deposits newly created for the purpose.

[1] *F.R.B.*, April, 1946, pp. 401–402.

HISTORICAL

It will be useful to consider briefly historical episodes of debt repayment: in the United States, 1866–1893, 1920–1930; and in Great Britain, 1818–1913, and 1920–1926.

23.6. POST-CIVIL WAR. It should first be recalled that in the 27 years from 1866 to 1893 approximately $1.8 billion, or two-thirds of the United States federal debt outstanding, was repaid—indeed a notable achievement. Yet the debt repaid amounted to but 8 per cent of the national income in 1893. For the postwar period of World War II a corresponding repayment of debt of 8 per cent of our national income, in a corresponding 27-year period, *i.e.*, by 1972, would amount to a reduction of debt by only $18 billion, or only about 6 per cent of the United States federal debt outstanding in 1946, as compared with the aforementioned 67 per cent in the 1866–1893 episode. (For 1972 I assume a national income of $220 billion, and for 1945 a debt of $300 billion.) Further, against the reduction of federal debt of $1.8 billion from 1866 to 1893, one should weigh the rise of municipal debt equal to about one-third of the amount by which federal debt contracted.

Repayment for the period as a whole proved to be a tolerable burden because of the rise of income, population, and money. (The more important relevant changes are given in Table 39.) It should be observed also that debt repayment during that episode did not involve substantial contraction of deposits; for most of the bonds were held outside the banking system. The total contraction for all *national* banks was but $250 million, or an amount equal to 14 per cent of the debt redeemed.

The policy of United States debt redemption in the post-Civil War period under discussion, nevertheless, might be criticized on monetary grounds. Prices tended downward during most of this period. Money was scarce; the price level in 1893 was but 45 per cent of that of 1866 and 58 per cent of that of 1873. Had the government not redeemed two-thirds of its debt, it is not unreasonable to conclude the banks might well have provided at least $500 million of additional deposits. Actually, the rise of monetary supplies was only about 100 per cent, as compared with a gain of real income of more than 200 per cent (Table 39). Even more important than the decline of deposits was the manner in which the country was starved for currency and banking reserves, as a result of the compulsory retirement of national bank notes *pari passu* with the reduction of debt. The decline of prices increased the government's debt burden and prevented a more rapid economic expansion.

We can be critical of debt contraction in 1866–1893 on other grounds also. The taxes were almost wholly on consumption, which is a

deterrent to economic expansion. (Even as late as 1902, consumption taxes were still accounting for 98 per cent of federal taxes.)[1] Thereby the low-income groups, who account for most consumption, were being taxed in order to repay debt held largely by the upper income groups, inclusive of banks. Perhaps the more rapid industrialization and gen-

TABLE 39.—ECONOMIC VARIABLES, 1866 AND 1893

	1866	1893
National income (billions of dollars)*	5.5	17.3
U. S. debt (billions) of dollars	2.76	.96
Currency in circulation (millions) of dollars	940	1,597
National banks:		
Bank deposits, exclusive of interbank (millions of dollars)	572	1,574
Government securities (millions of dollars)	450	207

SOURCE: National income; see N. R. Committee, *The Structure of the American Economy*, Vol. I, p. 377. Debt: *Annual Report of the Secretary of the Treasury*, 1937, p. 410. Others: Federal Reserve Board, *Banking and Monetary Statistics*, pp. 20, 408.

* 1935 dollars.

eral technical advances of the period counterbalanced the harm done to low-income groups by depriving them of consumption goods.

One other observation—interesting for our study—should be made: On the whole, the government repaid about as much in years of prosperity as in years of depression. The policy was not as anti-cyclical as it might have been. In general, it was flexible to some extent —the explanation being in part the immediate adverse effects on revenues of depression (see Table 40).

TABLE 40.—DEBT REPAYMENT AND ECONOMIC CONDITIONS, 1866–1893*
(In millions of dollars)

Economic condition	Repayments	Average yearly
13 years of prosperity	1,240	81
7 years of revival	460	66
13 years of depression	740	56
7 years of recession	750	107

SOURCE: Analysis of economic conditions based on W. L. Thorp, *Business Annals*, N.B.E.R., 1926, pp. 94–95; debt figures are from *Treasury Report for* 1937, p. 410. Income movements do not, however, always indicate the same general change as Thorp's designation of each year.

* Total years add up to 40 because where a year has been divided between two or more categories (*e.g.*, prosperity and recession), the year is included under both or all three. Note also that there were years in which no repayment was made, debt either remaining unchanged, or new debt being contracted.

[1] S. Kuznets, "National Income and Taxable Capacity," *A.E.A. Proc.*, 1942, p. 73.

Interesting, and apposite to our analysis of the history of debt repayment, is the discussion of the post-Civil War debt to be found in Adams' classic volume on *Public Debts*.[1] On the whole, he favored repayment of the Civil War debt and was critical of British policy of nonrepayment in the nineteenth century. Whereas the British opposed debt repayment on the grounds that money not taxed away for that purpose would fructify in the pockets of the taxpayers, American sentiment favored the expungement of the debt. In Adams' opinion, much of the money that might have been taxed away for debt repayment was wasted by the public. One view expressed by Adams, incidentally, is the modern one—that it all depends upon the alternative uses of the money: transfers do not necessarily destroy the capital.

For correct policy, we would suggest that it is necessary first to consider the use to which the taxpayer would have put the money and the use to which the government puts it when the debt is incurred, and, similarly, to consider what would be the alternative uses by both taxpayer and *rentier* if the debt were repaid. High taxes that reduce the return on capital excessively should be avoided. Yet Adams seemed to favor repayment rather generally: approved the repayment of the entire debt of $120 million from 1812 to 1834, and favored repayment of the Civil War debt. He associated reduction of the debt with the large revenues obtainable from custom duties, *i.e.*, business demanded tariff protection; therefore it was necessary to find use for the funds thus obtained.

Our survey of the 1866–1893 period does not support Adams' thesis—true, the repayment of debt did not prove to be disastrous, but not for the reasons adduced by Adams. Moreover, he completely disregarded, or was oblivious to, the vast gains of income and population that made the British debt policy much more reasonable than Adams would have us believe. We return to the matter of British debt policy in a later section.

Our analysis of debt repayment of the period 1866–1893 is perhaps lengthy and detailed, but not without a purpose. It will eliminate the need to sift much of the evidence in the other three episodes that follow.

23.7. THE UNITED STATES, 1920–1930. Over a period of 11 years after World War I, from 1919 to 1930, the federal government redeemed $9.3 billion of debt, which was more than one-third of the amount outstanding—an amount equivalent to approximately 13 per cent of the national income of $68.9 billion (current dollars) in 1930. Assuming a national income of $170 billion in 1956 (1945 prices), in a corresponding period of 11 years after World War II, from 1945 to 1956, a corresponding repayment of debt of 13 per cent of national income would account for redemption of $22 billion, or only 7 per cent of the debt outstanding (again assumed at $300 billion), as com-

[1] H. C. Adams, *Public Debts*, pp. 242–250, 260–275, 1893.

pared with about one-third in 1919–1930. A reduction of 7 per cent would not be a major achievement. An over-all summary of the economic changes in the period of 1920–1930 is given in Table 41.

TABLE 41. ECONOMIC VARIABLES, 1920–1930
(In billions of dollars)

	June 30, 1920	June 30, 1930
National income*	69.5 (47.2)	68.9 (57.4)
U. S. debt†	24.1	15.9
Currency in circulation	5.2	4.2
Monetary gold stock	2.6	4.3
All commercial banks		
Deposits‡	32.4	45.6
Loans	28.1	34.5
United States securities	3.7	5.0

SOURCE: *Treasury Report*, 1944, p. 627; Federal Reserve Board, *Banking and Monetary Statistics*, pp. 19, 409, 536; U. S. Senate, *Basic Facts*, p. 12; N.R. Committee *Structure of the American Economy*, p. 377.

* In parentheses, 1935 dollars. Income, for calendar years.

† As indicated in the last paragraph, the decline in debt from 1919 to 1930 was $9.3 billion.

‡ Exclusive of interbank.

On the whole, the policy of debt repayment from 1920 to 1930 seems to have been justified by conditions prevailing at that time. With an expanding economy, though not expanding as rapidly as in earlier decades, the burden of repayment did not weigh heavily. *Since the economy was rife with inflationary tendencies, a program that tended to check demand through a rise of taxes was helpful, and repayment of debt was such a program.* Expansion of deposits, it will be observed, was accounted for primarily by a large rise of loans and secondarily by the inflow of currency to the banks and gains of gold: All these induce deposit expansion. Taxes, moreover, were now much more largely on income (in contrast to what our study showed for 1866–1893, when most taxes were on consumption). Income, inheritance, gift, and corporation taxes accounted for 64 and 68 per cent of *federal* taxes in 1922 and 1930.[1] Clearly the government was not taxing the masses in order to redeem bonds held by the well-to-do, to the same degree as in 1866–1893.

The arguments are not all in favor of repayment in the period 1919–1930. There is something to be said on the other side, too. Under the usual boom conditions of the twenties, in one respect repayment of debt may well have been inflationary. The commercial banks actually

[1] Kuznets, *op. cit.*, p. 73.

increased their holdings of government securities by $1.23 billion, or from 15 to 31 per cent of the amount outstanding: Deposits expanded further, and sellers then had resources with which to speculate. (An offset, however, was the rise of taxes.) *Rentiers* also were able to direct taxpayers' money to the markets for speculative securities, *i.e.*, *rentiers*, who received cash for debt from the Treasury, disbursed more for common stocks than the taxpayer would have used thus had he not been taxed for debt repayment. A second point can be adduced against the manner of nonrepayment of debt in 1920–1930. Debt reduction, under a sinking-fund plan, was not geared to economic conditions of the period. *Repayment of federal debt by the sinking-fund technique is the very negation of wise policy.* As an example of this, we find that in the prosperous years 1928 and 1929 the reduction of federal debt was a mere two-thirds of that in the unfavorable years 1920 and 1922. And in that sorry year 1930, the contraction was no less than $746 million.

All in all, however, the writer's view is that debt repayment in the twenties had favorable effects. If there was a mistake, it was to cut taxes in the second part of the prosperous twenties and thus to reduce debt redemption.

23.8. THE BRITISH DEBT, 1818–1913. In the nineteenth century—the century of large population growth and spectacular rise in per capita income—the actual burden of British debt was reduced. A rise

TABLE 42.—PUBLIC DEBT AND RELEVANT VARIABLES, GREAT BRITAIN, 1818, 1875, 1913

Year	National income, £ million	National debt, £ million	Debt charge, £ million	Population, million	Income per head, £ s.	Approx. debt charge per head, £ s. d.	Index no. (based on Jevons-Sauerbeck index)	Index figure of *real* income per head (1818 = 100)
1818	400	840	32.50	17	23 11	1 18 0	160	100
1875	1,200	766	27.44	33	36 7	0 16 6	96	257
1913	2,300	656	24.50	46	50 2	0 10 6	85	400

SOURCE: *Colwyn Report*, 1927, p. 236.

of per capita real income of three times and an increase of population of about 1⅔ times contributed importantly to the lessening of the debt burden. Despite a reduction of prices by almost one-half in the years

1818 to 1913, public debt was much less of a burden in 1913 than 95 years earlier. Whereas public debt was more than twice the national income in 1818, it was only one-quarter of the national income in 1913; and whereas the debt charge was 8 per cent of the national income in the earlier year, it was but 1 per cent in 1913 (see Table 42). *Here is an excellent example of a nation growing up to a public debt, and debt repayment played a relatively unimportant part in the process.* That the British were not involved in a major war during these years was of course a decisive factor.

23.9. THE BRITISH EPISODE, 1920–1926. Another interesting episode was the British experience in the years following World War I. Repayment was concentrated on short-term debt. The British debt declined by £250 million in 1920 and was relatively stable in the years 1921–1924. The British problem was not so much debt reduction as debt conversion and a contraction of the floating debt. From 1921 to 1925 Treasury bills outstanding were reduced from £1,120 million to 588 million, and Ways and Means advances were reduced from £206 million to £186[1] million. Repayment of Treasury advances to the Bank of England of £50 million accounted for a loss of one-quarter of the cash reserves of the joint-stock banks. In a period of 4 years, 1920–1924, the London clearing banks had reduced their portfolio of bills from £440 million to £240 million.

It should be remembered that there was much sentiment for repayment of debt in Britain in the twenties; and particularly to be remembered is the fact that the Colwyn committee proposed an acceleration in the rate of repayment. In the years 1920 to 1926, the debt had been reduced from £7,832 million to £7,616 million. The major changes were a reduction in floating debt of £560 million (from the peak in 1919 the decline was from £1,570 million to £704 million, or a reduction of £866 million) and a rise in funded debt (*i.e.*, without a definite date of repayment) from £315 million to £1,074 million. If the British government had not reconverted a substantial amount of debt at reduced rate of interest but at a rise in capital value of £284 million, the decline would have been substantially greater. The main gains were not in the reduction of debt, but in reconversion to longer maturities and in a reduction of the rate of interest.[2]

In general, British experts in the twenties paid insufficient attention to the deflationary effects of the process of debt redemption. Mr. Brand of the Treasury, however, pointed out that deposits were twice as high as in the prewar, and commercial bills were not available; Keynes saw no objection to large issues of floating debt if the market wanted them.[3]

What is especially relevant for our postwar debt policies, in this

[1] Note, however, that Ways and Means Advances had declined from their 1919 peak of £774 million and that they declined further in 1924 and 1925.

[2] *Colwyn Report*, pp. 25, 33.

[3] *Ibid.*, pp. 34, 36; *Minutes of Evidence*, pp. 106, 111, 133, 277, 283.

particular experience, is the following: once the Treasury and the central bank introduce a policy of dear money—through repayment of advances to the central bank and corresponding reductions of reserves of member banks, and through limitations on fiduciary issues, thus forcing the central bank to take remedial measures—the banks and the public tend to liquidate their holdings of Treasury issues. In fact this movement, once rates harden, may begin—as it did in London in 1919—even prior to official action and, therefore, the more dangerous a Treasury high rate policy. Faced by increased competition and determined to induce contraction, the government is then required to make private loans and investments less attractive and to make government securities more so. One way to exclude or discourage rival demands is to bring about higher money rates, contraction of loans to nongovernmental sources, and adverse business conditions. Then the banks once more will become interested in Treasury bills.[1]

23.10. CONCLUSION. Our study of repayment of debt has profited from our analysis of the historical episodes in debt repayment. We are now ready to list our conclusions:

1. *Monetary effects of debt repayment are to be closely watched* for, in general, they may be much more important than the immediate improvement in the fisc and, in the long run, since they affect income, revenues also will be influenced.

2. For this reason the effects especially on bank deposits are to be observed. The American experience in 1866–1893 suggests that the scarcity of money—*i.e.*, its failure, in the face of rapid economic advance, to rise rapidly enough and to keep prices from falling—was in no small part an accompaniment of debt redemption.

3. There is evidence to show that the effects of debt repayment in the period 1919–1930 may in some respects have been inflationary, though probably not on balance; but the effects certainly were not adequately deflationary. At any rate, deposits continued to expand; in part because, though the public debt fell by $9 billion, investments of banks in government securities actually rose.

4. Past experience of debt repayment in the United States and Great Britain suggests two important warnings to the managers of our postwar economy regarding the monetary aspects of debt redemption:

a. It is necessary to maintain cheap money rates, for if rates rise the public and even the banks may desert the bond and Treasury bill market. (Of course,

[1] These matters were fully discussed many years ago in my *Monetary Problems of the British Empire*, Book V, 1931. See also Hicks, *op. cit.*, Chs. XX and XXI.

with the functioning of rigid controls, their desertion could be checked.) When the public and banks desert the bond market, then contraction follows. Deposits decline with rises in taxes and redemption of issues held by the banks. In 1920–1924, British policy of dear money, in order to contract monetary supplies and to return to gold, was reflected in large reductions of Treasury bills and reserves of joint-stock banks. The result—monetary stringency and large amounts of unemployment for years.

b. Short-term debt should not be redeemed too rapidly. A policy of this kind—again I deduce from the lessons learned from the British experience—is likely to mean deposit contraction, for the short-term issues are held disproportionately by banks.

5. Repayment of large amounts of debt almost certainly will bring large reductions of deposits: deposits, we observed, rose with debt expansion, and their most likely cause of contraction will be debt repayment. The year 1946 was an exception.

6. Another relevant issue is the rate of growth of the economy. In the years 1866–1893, it was possible to repay debt in the United States —and even to restrain the manufacture of money sorely needed—and yet witness a rapid economic expansion, because the country was growing rapidly. Clearly, the adverse effects of the debt repayment were concealed by the factors of growth. But it is unrealistic to expect a rate of growth of these dimensions in the future. Therefore, relative deflation brought on by repayment of debt is the more to be feared. British nineteenth-century history of debt repayment suggests the probability that a century of peace will automatically cut the debt burden.

7. In the years 1866–1893, the United States escaped extreme adverse effects of a system that taxed consumption preponderately, because of the unusual need for capital in that period, but need of new capital will probably not be equally great in the years 1946–1975. One hopeful factor in the future is that federal taxes will more largely be on nonconsumption.

8. Above all, the method of repayment of debt should not be by the sinking-fund method, which calls for repayment irrespective of economic conditions. In the years 1866–1893 repayment was adapted to business conditions somewhat better than in 1920–1930.

9. *In short, debt repayment is justified in periods of boom. In other periods, let the financial purist beware.*

Chapter XXIV

Debt Management and Broader Issues

24.1. ECONOMISTS GENERALLY DO NOT FAVOR HIGHER RATES. It should be clear by now that the writer is not sympathetic with a policy of debt repayment except in periods of inflationary pressures, *i.e.*, excessive demand, and that in his view a rise in the rate of interest might well be unfortunate. In fact, these economists who have in recent years been writing on the public debt seem to be in general agreement that rates should be kept down. Some indeed express concern lest rates decline further; but others, in their proposals for freeing the market, diverting securities to nonbanking lenders, and offering a rate adequate to attract lenders, support policies that, contrary to their attestations of low interest rates, may well bring about a rise in rates.[1]

24.2. DEBT MANAGEMENT AS AN INTRUMENT OF CONTROL. The view advanced in this book is that debt management can be an instrument for keeping our economy on an even keel. The implication of that statement is not that a large debt may not in some respects make monetary and fiscal policy more difficult—here I agree with both Wallich and Abbott. I would not, however, accept Abbott's position, which he argues with ability, that our objective should be to reduce the influence of the public debt on the economy. Here the indication is that we have an underlying difference of philosophy: to Abbott, the objective is restoration of free market prices; to the writer, the objective is high levels of employment which can be attained only through the use of monetary and fiscal measures (not exclusive of other measures). This approach appeals because by this procedure our goals may

[1] See, especially, C. C. Abbott, *Management of the Federal Debt*, especially, Chs. 2–6, 1946; also see H. C. Wallich, "Debt Management as an Instrument of Policy," *A.E.R.*, June, 1946; A. G Lansten, "Crucial Problems of the Federal Debt," *Harvard Business Review*, Summer, 1944; A. Kaehler, "The Public Debt in the Financial Structure," *Social Research*, February, 1944; H. Reinhardt, "On the Incidence of Public Debt," *Social Research*, May, 1945.

be reached without minute control of men and capital. We may then use debt management as a valve for reducing or increasing the flow of spending.

24.3. ARE RATES TOO LOW? In recent literature, and in particular in the provocative little volume by Prof. Abbott, one will find much discussion of the unfortunate effects of low and falling rates of interest.[1] It is said, for example, that the low rates increase the difficulty of control—with a cheap money policy it is not possible to raise rates to reduce demand in periods of excessive activity, and, it is held, reductions from a low rate will not stimulate the economy. The answer to this point is to be found in Chapter XXII. Here it suffices to say that it is the fashion in economics today among both Keynesians and anti-Keynesians to question the great importance of interest rates as a determinant of economic activity, and to add that there are ways of controlling the economic system other than through a rise in interest rates.

A second point, emphasized both by Abbott and the *London Economist*, is the relation between low rates, on one hand, and an expanding supply of money and inflationary pressures on the other. At low rates, large proportions of securities gravitate to the banks. Supporters of higher rates ought, however, to tell us at *what* rate a substantial flow of securities from banks to the public will take place, and whether the gains in reduced monetary supplies (and the consequent reduced spending) will offset the resulting losses in Treasury deficits and deterrents to spending.[2]

Critics of low rate policy are also fearful of the increased substitutability of government securities for cash. According to them, control over the monetary system is lost. By exchanging government securities for cash, or vice versa, the public, not the monetary authority, determines the amount of cash outstanding. At relatively stable prices for government securities, and with dwindling differentials between short and long-term maturities—both the effects of current policy—securities increasingly become quasi-money.

24.4. THE ATTACK ON INFLATIONARY FORCES. One cannot, of course, dismiss such points as being irrelevant or unimportant. They have substance. The cogent reply is plainly to admit that public debt

[1] Also see *London Economist*, Apr. 20, 1946, pp. 635–636. Many of the issues raised have been discussed in Chs. XII and XXII. Since the issues are not easy, it will not hurt to repeat one or two points and integrate the strands of the argument further.

[2] Again see Chs. XII, XXII.

policy has had the suggested effects. Money and liquid assets are in unusual quantity in relation to national income and in relation to the flow of goods. This is the price of a costly war which had to be financed largely by borrowing, and in no small part through inflationary borrowing. Undoubtedly a better balance might have been achieved between taxation and borrowing, between long-term and short-term borrowing, and also between inflationary and noninflationary borrowing. *Yet my considered judgment is that on all counts a good job was done—much better than one would have expected looking ahead in* 1942. And we should repeat the point made earlier: that the supply of money and deposits is not so much in unbalance as is popularly held.

Our problem is not to stop the decline in rates, though undoubtedly a decline may at times be excessive. Rather our problem is to study the relation of liquid assets and the flow of goods and suggest what can be done. The answer is that in periods of excessive demand, *e.g.*, 1946, anti-inflationary measures should be taken. *What is required is a temporal redistribution of spending: our economic policies should be adapted to this need. In such periods of excess demand, keep wages under reasonable control, restrict excessive investment, maintain price control, raise taxes, and so on. Then the large amounts of money and quasi-money instead of being used to inflate the economy further in periods of excessive demand will be used later to bolster demand when it has become insufficient.* The writer need not point out the departure in the years 1945–1947 from this suggested policy.

In discussing rates one should also keep in mind the fact that United States policy has not been unique. Manipulation of rates in order to make credit cheap for all borrowers is widespread now.[1] It is also the rule to increase the proportion of short-term issues—thus contributing to reduced rates (see Chart 23). We have made much progress since World War I—as is evident in a comparison of rates in the two World Wars (Chart 24). Despite the decline in rates in this war and despite an average rate at the peak of less than one-half the World War I rates, prices have been contained much better in World War II than World War I.

24.5. REPAYMENT OF DEBT. Economists in general do not seem to share the views of those businessmen and government officials who are disposed to pay off the public debt. Much is to be said for various proposals made (*e.g.*, by, Seltzer, the Committee for Economic Development, the Federal Reserve Board) to immobilize securities held by banks and thus to reduce the danger of rising rates. Even more

[1] League of Nations, *World Economic Survey*, 1942–1944, pp. 213–217.

perhaps is to be said for a variant of the 100 per cent plan which would make possible a repayment of public debt in response to the demand for increased supplies of money. If, for example, the public on the

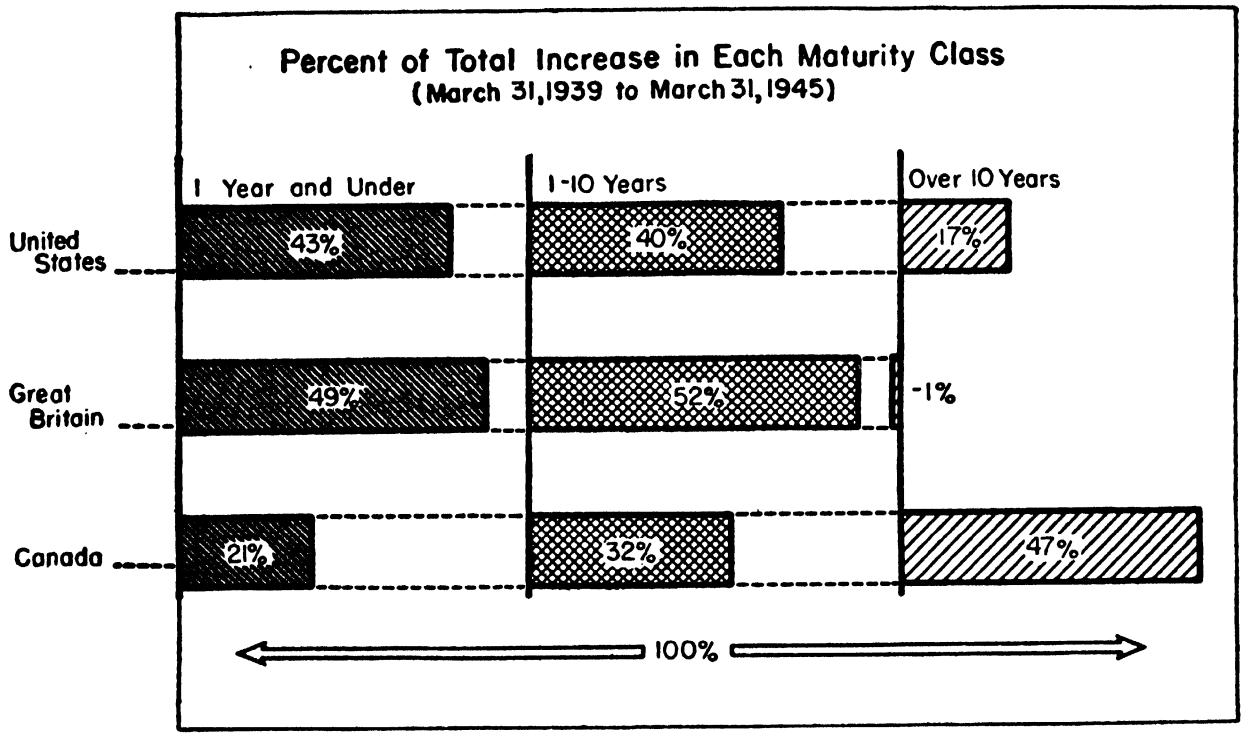


CHART 23.—Rise in short- and long-term borrowing in World War II. (*Source: U. S. Treasury Department.*)

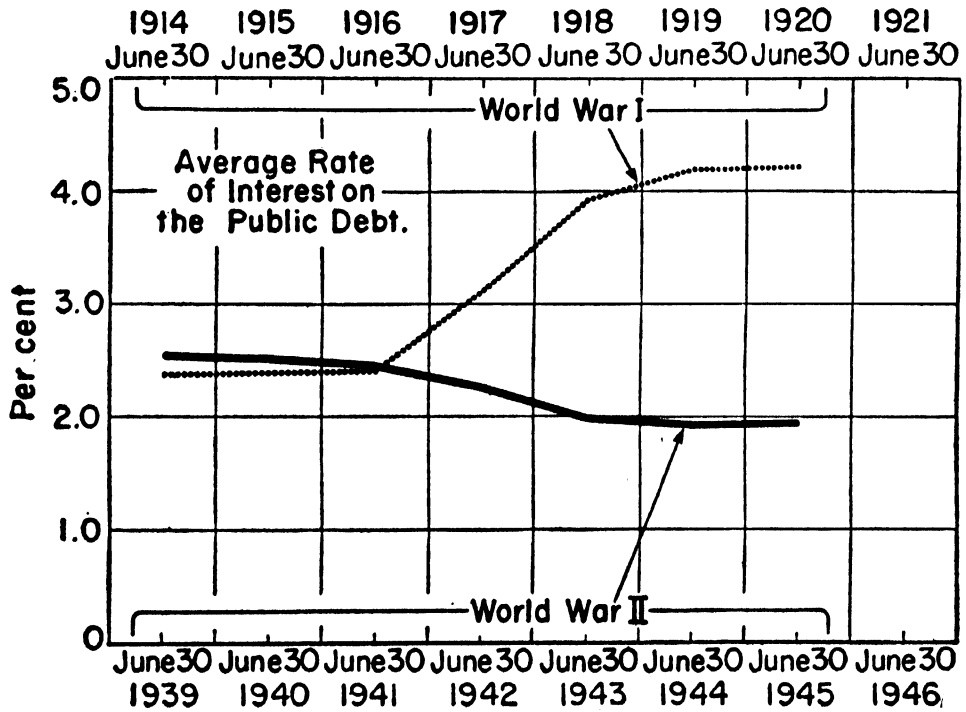


CHART 24.—Interest rates in two wars. (*Source: U. S. Treasury Department.*)

average should increase its monetary requirements by $5 billion per year over the next 50 years, the public debt might largely be repaid in the following manner: The Federal Reserve could buy $5 billion of

securities each year, paying for them with the newly manufactured currency required by the public.[1] Against the additional money (reserves) issued, the banks would not be allowed to manufacture additional deposits.

24.6. THE EARLY POSTWAR. The first years of peace do not reveal any significant changes in debt policy or any large redistribution of securities. As was noted previously, the holdings of banks and other corporations and associations declined, whereas other classes of investors increased their investments in public securities. Even individuals do not as yet show a disposition to sell on balance.

These points are of some interest in the light of severe criticism of Treasury policy in the first half of 1946. The New York correspondent of the *London Economist*, among others, then stated that the Treasury was converting long-term securities into short, was bringing rates down at a catastrophic rate and thus contributing to a speculative rise of capital values, increased consumption, and inflationary pressures.[2]

What seems to have occurred is that in the early part of the year the continuance of large incomes and large current savings without continued large government deficits resulted in the bidding up of outstanding government securities. That the government was embarrassed by the resulting rapid rise in prices of securities is attested by the policy of the early weeks of 1946. Federal reserve investments of public securities fell by $700 million in the first quarter of 1946, and beginning in February the banks began to lose securities at a rapid rate. The figures for the year as a whole do not reveal any substantial exchange of long-term for short-term securities—in fact, the general rise in rates, despite the decline in rates for long-term securities, suggests a greater recourse to long-term issues.

In the period of almost 2 years since the end of World War II, the state of the market for public securities was remarkably stable—especially so for a period of large economic movements. The net rate on government issues changed little; the government exchanged about $20 billion of cash for government securities held by banks (planned for two years ending June, 1947); and business, losing liquid assets in its quest for expansion and profits, on balance disposed of securities.

[1] On the basis of experience, this is not a high estimate of the increase in monetary requirements. We leave out of account, however, the issue of currency against inflow of gold.

[2] *London Economist*, Apr. 20, 1946, pp. 635–636. The reader should compare this severe criticism of our policy with an article by the editors which assures the British that supplies of money in relation to income in Great Britain are not excessive—similar arguments have been used in this country. *London Economist*, May 4, 1946, pp. 712–714.

Conclusion

Since the book is summarized in Part I and since most chapters have summaries, only a brief conclusion is required. The following points are selected for additional emphasis.

1. Our national debt of approximately $260 billion is dangerous only if it is not well managed. Sound management, above all, requires that the administrators consider what effects their policies will have upon interest rates, maturities, amount outstanding, and above all, on the economy.

2. It is easy to exaggerate the importance of financial arrangements; and public debt is a financial arrangement, which to some extent determines the distribution of goods and services. Before prescribing, the economic practitioner should observe the effects of financial policies upon the output of goods and services. While a rise of debt increases financial obligations and influences the distribution of goods, it also affects the volume of output and income from which the necessary payments are made.

3. On balance, public debt may well be a burden. There are, however, important offsets. Among these the following may be mentioned: the expansion of liquid assets which will contribute to the maintenance of demand in periods when demand is deficient; the contribution of debt growth to the provision of necessary supplies of money without which our economy would bog down; the rise of income and savings which accompanies an expansion of debt. If then the tax burden is greater, the capital assets, which increase with debt, are also larger.

4. How great a burden the debt will be depends upon the rate of interest, the tax system, the weight of other expenditures of government, and above all, upon the level of national income. At low rates of interest, with a tax system that does not weigh too heavily on investment and, a fortiori, on consumption, with moderate but not excessive expenditures for nondebt purposes, and with a national income that expands at a rate even substantially less than in the last 100 years, this country can stand a public debt much larger than is likely to be required in the next 50 years.

5. We cannot and should not departmentalize our debt and monetary policy. In incurring debt, the Treasury tried to strike a balance between low interest rates and the resulting economies and inflationary dangers, on the one hand, and high rates and high costs and reduced inflationary dangers on the other. At much higher rates of interest than the wartime average of less than 2 per cent, the Treasury might have succeeded in reducing sales to banks by a significant amount; but the gains inflation-wise were not considered adequate in view of the anticipated rise of costs.

6. In the future, the Treasury probably will (and should) continue to seek low rates which are still consistent with relative price stability. It should not, therefore, take strong measures (*e.g.*, a rise in rates) to move securities from banks to nonbanking investors. A rise in rates would not achieve large reductions of spending, though it might induce the public to exchange excess cash for government securities—a result that would contribute little to the fight against inflation. It is not clear, moreover, that at the present rate of interest, the public will desert the bond market, and will thus force banks to buy and expand deposits further. As long as incomes and, therefore, savings remain high, the demand for securities will probably exceed supplies of securities at current rates, with the result that rates will tend downward and prices upward. That rates moved upward briefly in 1946 is explained by the substantial inflation brought on partly by severe competition for capital funds and to some extent by restrictive government policies, *e.g.*, redemption of securities held by the banks. In depression periods, there is a stronger likelihood that pressure will be felt on security markets, and the rate of interest will tend to rise. At such times, however, the government would have to press for a low-rate, not a high-rate policy.

7. It is then important that Treasury debt policy be integrated with monetary and related policies. In periods of excessive demand and inflationary dangers, the government should use all weapons in its anti-inflationary arsenal, inclusive of subtraction of purchasing power through debt repayment. Appropriate wage control, production, and export policies would also have to be enlisted.

8. When demand is deficient, however, the government's task is to subsidize demand. Clearly in such periods debt repayment is out of the question, and the presumption is in favor of debt growth. Failure to keep demand up not only results in a decline of income and tax

receipts, but the burden of the public debt will rise relative to the flow of goods.

This volume, written for the most part in 1945–1946, went to press in the summer of 1946. Reading the proofs in Spring, 1947, the writer found little that required change, aside from bringing some of the figures up to date where such revising would be helpful to the reader.

The passage of almost 2 years of peace has fulfilled the economic course the writer anticipated at the end of World War II. The period has, unfortunately, been somewhat more inflationary than expected—controls, to cite one cause, were removed prematurely, with the result that supply and, even more, demand for funds have been larger than anticipated. Even so, the market for public securities was remarkably stable—exceptionally so, in view of the dynamic situation.

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