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Prepared by a Staff of Accountants, Auditors, Management Engineers, and Specialists in Business Methods and Administration

OVER SEVENTEEN HUNDRED ILLUSTRATIONS, DIAGRAMS, AND CHARTS . . TWELVE VOLUMES

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Grateful acknowledgment is made of the valuable service rendered by the many manufacturers and specialists in office and factory methods, whose cooperation has made it possible to include in these volumes suitable illustrations of the latest equipment for office use. Acknowledgment is also made to those financial, mercantile, and manufacturing concerns who have supplied illustrations of offices, factories, and shops, typical of the commercial and industrial life of America.

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FOREWORD

MODERN business places a high premium on the trained man. Of the thousands who knock each year at the portals of our commercial enterprises, the applicant with a backlog of sound training is in greatest demand.

On the job, he has a better chance for promotion than the untrained worker, because his preparation gives him a knowledge of the broad fundamentals of successful business operation.

The road to executive leadership and success in business begins with good training. All commercial and business enterprises, large and small, are governed by certain basic principles. Today's businessman must analyze his problems with intelligence and knowledge, based on an intimate understanding of these fundamentals. He must have a grasp of the whole operation of a business as well as the inter-relation of its parts.

How does he come into possession of such knowledge? Eventually by experience, yes. But he seldom gets the chance to acquire that experience without previous preparation. Such preparation can come either through study or apprenticeship, but usually it is a combination of both.

However, the great growth of business and industry, reaching new heights of expansion during World War II, has made for further specialization in the duties of business executives and subordinates. Thus it has become impossible to get apprentice experience in the numerous departments of an organization without spending long years.

Modern methods of business training have evolved sound and tested short cuts to executive leadership and business independence. A carefully planned program of study offers effective means of acquiring such training.

In the past, the man who desired to acquire this knowledge found himself wasting valuable time. For one thing, good reading material was so scattered that blind selection of textbooks was unavoidable. As a result, much duplication of

reading and important omissions gave him too much of some subjects and too little of others.

In order to offer in co-ordinated, organized form, a complete series on training for business leadership, the American Technical Society prepared this set on Practical Business Administration. Through eight editions and numerous reprintings, we have revised and added to the original texts to meet the specific needs of today's business trainee and executive.

The present set combines the collective judgment of outstanding authorities with their accumulated years of practical experience in specialized fields. Thousands already have found this set to be their first step toward successful business careers.

Prepared primarily for those who engage in independent home study, these books have been written at the college level for high-school graduates who aspire to executive positions. The style of writing is simple and readable; the lesson contents clear and comprehensive.

The businessman hard pressed for time, the fact-seeking citizen wanting the know-how of business, and the student for whom this set has been prepared primarily—all find in these books a wide range of practical knowledge and a wealth of factual material about the world of business.

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Chancellor of the University of Chicago, son of a college president, he is an outstanding educator whose views have stirred and influenced American thinking. He stepped from the post of Dean of the Yale Law School to become president of the University of Chicago in 1929 at the age of 30. To the first entering class which he addressed as the new president, he said: "Nobody can educate you but yourself. Where your desire to learn ends, your education ceases."

Courtesy of Kay Carrington Photo

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. . . . . *By May Wood-Simons**

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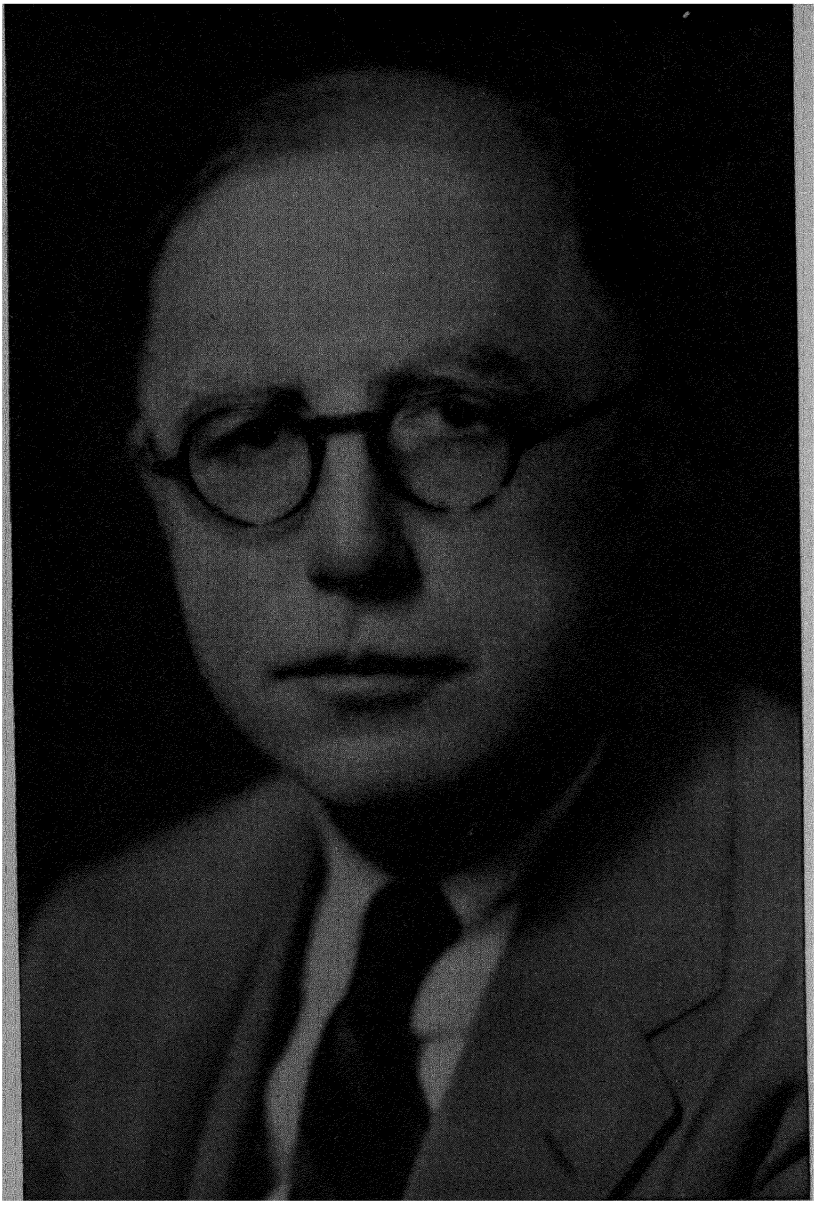

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Courtesy of Department of Labor

Chapter I

HISTORIC BACKGROUND OF OUR ECONOMIC STRUCTURE

OBJECTIVE: Bird's-eye view of the development of present-day economic systems.

PREVIEW: *Throughout the ages of human existence on earth, men have been forced to work out various methods and different means of providing such necessities of life as food and shelter. Primitive man lived in caves and ate uncooked food. Society has advanced through a series of stages from the crude methods of the cave man to our own highly complicated economic systems. Each system contains within itself influences from the systems which preceded it; that is, every system is an outgrowth of the past. In order to present a complete view of our economic system, an economist must give considerable attention to economic development over a period of time. The subject matter of this text deals primarily with human desires and how these desires are satisfied; Chapter I covers briefly the history of the origin and progress of our economic system.*

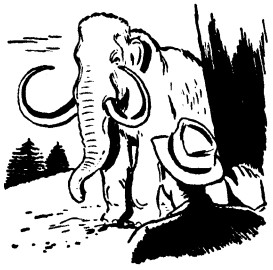
Unit 1. Why We Study the Economic Systems and Their Institutions

A. Economic System Defined.
B. Economic Systems Classified:
   1. Location in Time.
   2. Location as to Place.
   3. Different Stages of Advance.
   4. Systems Shaped by Type of Economic Control.
C. Static and Dynamic Society Distinguished.

A. Economic System Defined. The desires of human beings and the ways in which these desires are satisfied make up the subject matter of this book. Ever since primitive men lived in a cave, a leaf-covered shelter, or a mud hut, certain needs have had to be satisfied

or the race would have disappeared. This early man, whose capacity to think lifted him above the animals, worked out various methods and used different means to secure the things necessary to make life go on. We may say, then, that an *economic system* includes the methods and means, or institutions, which society has used, or is using today, to meet its desires. *Society*, as the term is used here, may consist of a tribe or a complex industrial organization. An *economic institution* may be considered as an arrangement, or relationship, by which groups carry on their activities; for example, banks representing financial activities.

B. Economic Systems Classified. This portion of our discussion will rest heavily on history, as it is impossible to examine economic systems, their structure and institutions, without giving considerable attention to their development over a period of time. The economist must be also something of a historian; otherwise he will present an incomplete view of the origin and progress of economic life. Moreover, each system contains within itself influences from the systems that preceded it; it is an outgrowth of the past. This principle of evolution must be kept in mind and is evidenced by the continuity in our economic systems.



Looking Back
50,000 Years

1. Location in Time. There are various ways in which we could approach the element of time in our discussion of economic systems. We could go back 50,000 years and trace the changes in the ways man has found to satisfy his wants. Even a few words about some of the periods, in such an extent of time, would occupy too much of our space. We might decide to begin with ancient times, starting with the Egyptians and Babylonians, as early as 3,000 B.C., or, shortening the time still farther, we might start with the Greeks in 700 B.C. We could then close ancient times with the fall of the Roman Empire in A.D. 476, and it would be entirely correct to make the Middle Ages extend from the fifth to the sixteenth century. However, in beginning our study, we will not go back farther than the Middle Ages. This long stretch of a thousand years presents many economic developments that are characterized by such definite conditions that they

may well be called *economic systems.* In this study, modern times, beginning with the sixteenth century, is treated more fully than the Middle Ages.

2. Location as to Place. The environment in which an economic system develops has an influence on the form that it may take. A system developed on the plains of Russia would be radically different from one beginning on the New England coast of North America. Under the term *environment* it is possible to include here not only the natural resources but also the human resources which play an important part in shaping economic systems.

Many economic histories make their entire discussion swing around Great Britain, beginning with feudal England about A.D. 1150, including the growth of villages, towns, and trade, the development of the mercantile theory, and the coming of the Industrial Revolution in 1776 with capitalism and the *laissez-faire* policy.

Other writers of economic history confine themselves to American economic development, frequently giving little or no attention to the time that preceded the rise of manufacturing in New England, although they may give some attention to the rather extensive

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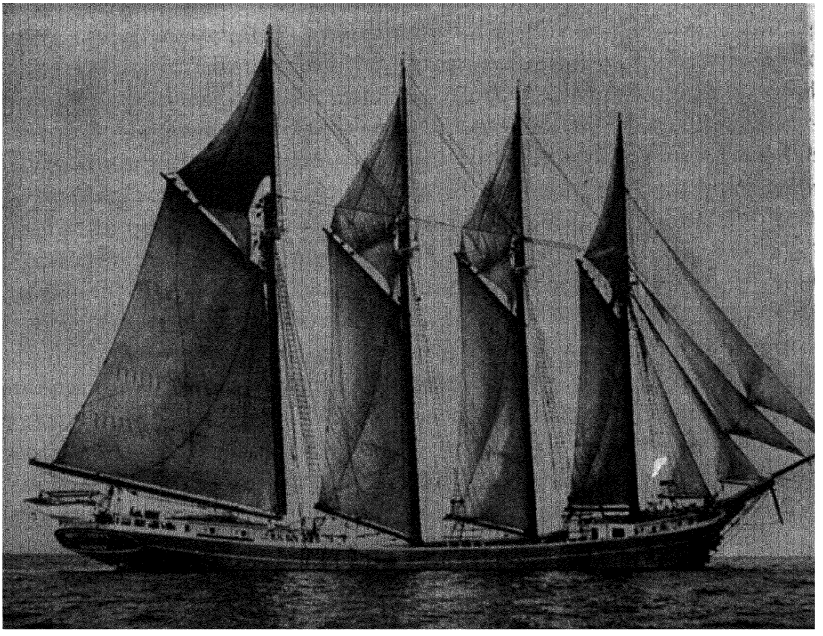


trading carried on by the American clipper ships. There are, of course, industrial histories of Germany and other European countries, but, except by specialists in history and economics, they have received little attention in the United States.

3. Different Stages of Advance. The whole subject of economic systems might be approached from still another point of view. We might discuss the stages, or steps, in the progress made by man. There would be the fishing and hunting stage, the agricultural stage, and the industrial and manufacturing stage. Domestic and foreign trade could be treated here also. Such a treatment would be applicable to the United States, where we could start on the eastern shore with industrial communities of the northeast and move westward with the moving frontier, finding all stages existing at the same time but in different places.

4. Systems Shaped by Type of Economic Control. Under this head a somewhat new and important angle is presented for the study of economic systems. In a later discussion of the control of economic power, we deal more fully with three different forms of control:

First, there is the *capitalistic society* as represented by the United States. In this capitalistic society the control of industry is largely in the hands of owners. Government, which is the supreme power, is democratically controlled by all the people through their elected representatives; private enterprise, with little governmental regulation, characterizes this form of society.

Second, there is the Russian Soviet form of control of power, where both economic and political control rest in the hands of the government which governs through the Communist Party. Democracy is accepted as a principle but is not yet largely practiced (1944).

Third, there is the German Nazi–Italian Fascist type of control. Both political and economic control are in the hands of the executive of the National Party, the dictator; democracy in any form is strongly opposed; ownership is ostensibly private.

Institutions, that is, the relationships or organized arrangements by which a social group conducts its affairs and life, are particularly sensitive to changes in the type of economic control. This close connection is especially true of those institutions centering around production of goods and consumption.

C. Static and Dynamic Society Distinguished. It is important to recognize the distinction between *static* and *dynamic* as used in economics. *Static* can be defined as a condition in which the elements or forces being considered are in equilibrium, are passive, are at rest, or are not changing. We speak of a whole society as being in a *static condition.* This term is sometimes used to describe the Middle Ages, when desires were not changing greatly, when the same number of articles and the same methods of making them prevailed, and when markets were small and purely local. It cannot be assumed that there were no alterations in medieval society, but movement was extremely slow, with generations being absorbed in any changes involved.

Implements Typical of Static and Dynamic Society

Some economists also speak of an *imaginary static society* they have created as a setting for their theories. Such a society, they claim, must be considered as having no increase or decrease in population, and no change in methods of making goods. The organization of industry remains the same, capital is fixed in amount, and the desires of consumers do not vary in kind, intensity, or number. With some economists this is considered a *short-run phenomenon.*[1] However, we must admit that a theory built on an entirely static society is based on pure assumption, or on what J. B. Clark, a noted economist, called an "imaginary society," one without observable facts. As a matter of fact it may not be correct to call the Middle Ages definitely *static,* for though the changes that took place were small and slow, nevertheless they existed, and new forms did arise as time passed.

The opposite of static is known as *dynamic.* This may be defined as pertaining to, or characterized by, effective action. It is potent or forceful. In contrast to the society of the Middle Ages, which is spoken of as an example of static society, modern industrial society is considered dynamic. The changes are fast; continuous movement is inevitable; the changes grow in scope; new inventions and new

[1]Many economic terms and phrases are explained in the *Dictionary of Economic Terms* in the back of this book.

relations appear; the movement is world-wide; population changes; technological improvements appear; new resources are discovered; there are modifications in desires and in the habits of the people.

Economists approaching the subject from the dynamic point of view recognize the various alterations which are constantly taking place in the demands made for the goods and supplies that are produced. They think of these changes as working toward an equilibrium. *Equilibrium* means reaching a balance, or an even adjustment, between opposing forces, influences, or interests. In economics it may mean an exact balance between the desire to secure certain goods and the effort that must be expended to get them. We may say an equilibrium exists if, when there is a slight departure from it, there is a tendency to return to it immediately. Equilibrium is not to be confused with an equation; *equilibrium* means a balance of forces, while an *equation* is an equality of quantities.

KEY POINTS IN UNIT 1

1. Economic system includes methods and means used by society to meet its desires.
2. Classification of economic systems—time and place.
3. Our economic system outgrowth of our former systems.
4. Importance of principle of evolution in study of economic system.
5. Economic systems shaped by type of control.
6. Social nature of economic systems.
7. Difference between static and dynamic society.

Unit 2. Economic Systems Developed as to Both Time and Place—England

A. Feudal England:
   1. Village Life and the Manor.
   2. Towns and Markets.
   3. Merchant Guilds.
   4. Craft Guilds.
   5. Decline of the Guilds.

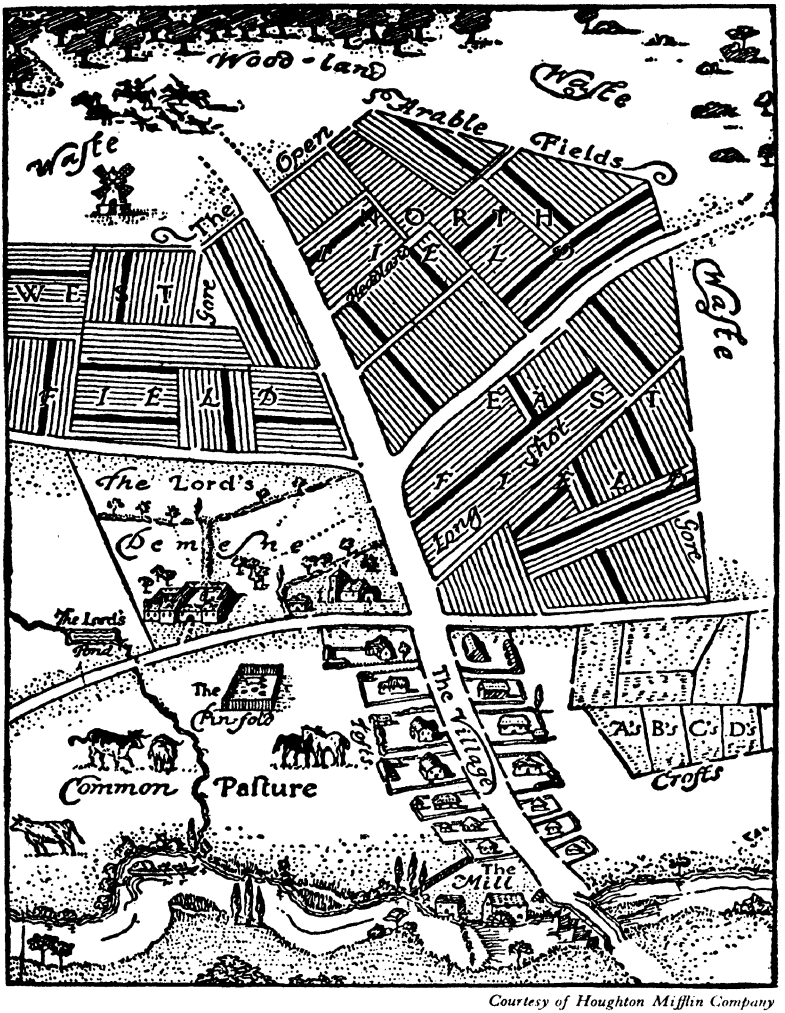
B. The Commercial Revolution.

C. Mercantilism:
   1. Mercantilism Defined.
   2. Influence of Mercantilism.
   3. A Period of State Building.
   4. Theories of Mercantilists.

D. The Industrial Revolution:
   1. Causes of the Revolution.
   2. The Factory System.
   3. Laissez Faire.

A. Feudal England. The economic situation in rural England in the middle of the twelfth century was such that *the manor* was a self-sufficient organization except for the importation of a few minor articles; there was security for the men and women who did the work on the manor, but little or no economic freedom, as the worker was practically bound to the soil; production was almost entirely for consumption on the manor rather than for sale.

1. Village Life and the Manor. For our first study of economic structures let us choose the Middle Ages at about A.D. 1100, and the place, England. Rural life was characterized mostly by small villages; it rarely appeared then as it does today in Yorkshire and Cumberland where one farmhouse with its stables, silos, and granaries is located by itself on a considerable piece of land. The medieval farmer lived on a manor which was in the hands of a lord, a bishop, or other ecclesiastical official, a nobleman, or the king. A *village* consisted of a group of from ten to fifty small thatched houses, the church, a flour mill, and the manor house. The whole



Courtesy of Houghton Mifflin Company

Plan of Old English Manor

The central feature was the dwelling house of the Lord of the Manor, which also served as the court house; the only other important buildings were the church, the priest's house, and the mill. The tenants of the village lived along the main road and worked the adjacent fields on terms very favorable to the lord. Out of such isolated little communities developed our present economic and business organization.

was surrounded by large tracts of woodland, pasture, and land that was cultivated by *serfs*[2] or *villeins*.[3]

The method of cultivating the land was crude. The three-field system prevailed; that is, the arable land was divided into three parts, two parts being cultivated and one lying fallow each year. This was perhaps one of the best features of the system. The tenant or villein was assigned a share in each of the three divisions and also had a portion of the woodland and of the pasture.

Payments and services were contributed to the lord of the manor by the villeins, and were either regular payments in produce or money payments at certain times of the year. Some of the tenants held as much as 100 acres of land, while the so-called *cotters*[4] possessed only a dwelling house.

Besides the villeins and cotters, there were in a village the blacksmith, probably a miller, and the priest of the parish. The manor of the Middle Ages could be considered something of a world in itself. Except for the rare articles which might come into the country by way of the still-limited foreign trade and which usually went to the house of the lord of the manor, there were only a few things used on the manor which were not made there or raised from the soil. The manor was a small self-sufficient unit. There was security for the villeins, who continued from generation to generation on the same land, and the lord of the manor had no reason to fear lack of allegiance on the part of his villeins. To be sure, the system of agriculture was poor, and the animals raised were of low quality. However, one thing to keep in mind is the fact that the farmers produced entirely for consumption—their produce was for use on the manor.

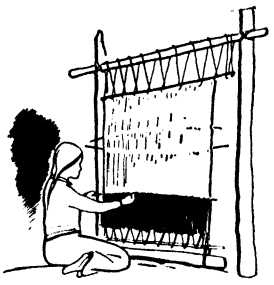
[2]*Serf*, strictly speaking, was one who was attached to the soil and was sold with it into the service of any and every purchaser of the land on which he worked. With regard to their lord, serfs were slaves, but were free in their legal relations with respect to all others. They were persons in the feudal system.

[3]*Villein* seems to have been, originally, a term applied to any free common villager or village peasant. Later, beginning about the thirteenth century, the term *villein* or *villain* was used freely. The term was sometimes applied to serfs. From this status they gradually improved in financial condition, finally becoming the free peasants of later days. *Serfdom* describes a condition in which the villein of the manor was bound to give his services and certain payments to the lord of the manor and could not leave the land because he was held by a legal bond. The free tenant was held merely by an economic bond.

[4]*Cotters* were peasants next in rank above the serfs.

It was not for sale, except to some of the town dwellers where a town was located on the manor and perhaps chartered by the lord of the manor, or unless the manor adjoined a seaport.

2. Towns and Markets. By A.D. 1250 there were close to 200 towns in England. The towns as a whole can be distinguished from the manors not alone because one was rural and the other a compact, often walled, community, but also because of the difference in the occupations of the people. We have outlined the occupations on the manors. In the town there were two principal occupations—trade and manufacturing or handicraft—and, of these two, trade stood out as the more important. Some of the townsmen also carried on a limited amount of agriculture just outside the town, on land secured from whoever had granted the town charter, but these towns were not self-sufficient units as the manors were; the townspeople, for the most part, had to buy their food, the raw materials with which they worked, and their fuel from the manors, which were by this time engaging in some trade.



Weaving

The towns were organized under a charter granted either by the king, a lord, or an ecclesiastical official such as a bishop, on whose land the town had grown up. Many privileges were granted to the towns, but as most of them have little bearing on our economic viewpoint they need not be discussed here. Within the town were two organizations that we must deal with rather fully, the *merchant guilds* and the *craft guilds.*

3. Merchant Guilds. The merchant guilds were older than the craft guilds, and may be defined as associations of local merchants who came together for purposes of co-operation. In the towns were bakers, various other food producers, and craftsmen producing goods made of leather, cloth, metal, and wood. All of these goods were the basis of a developing trade that was the main occupation of the people of the towns. This trade had to be protected and regulated, and so the merchant guilds came into existence.

The purposes of the merchant guilds were to control production, marketing, and domestic and foreign trade, to protect against unfair

competition by maintaining practically a monopoly, and to develop commercial law. People from outside the town, who came there to trade goods, carried on their business under strict regulations laid down by the merchant guild. In this manner, the guild made its power felt, since it eliminated outside competition and maintained a monopoly in trade.

In later years the merchant guilds for all practical purposes made up the municipal government; in some towns the guilds became merely fraternal organizations. So far as the real purpose for which they were organized was concerned, by 1300 they had begun to decay. Those who controlled the guilds refused to admit new members and the guilds became a hindrance to trade. They failed to recognize the needs of the new and expanding commerce. Unable to adjust themselves to the demands of a developing new age, the merchant guilds existed as organizations in name only. There is no doubt that, controlling the trade of the town and the towns themselves as they did, there was not a little corruption in some of the economic activities of the merchant guilds.

4. Craft Guilds. By 1350 the *craft guilds*, a new group of organizations, were rising to take over the control of the towns. These may be considered as associations of craftsmen, meaning workmen, who were engaged in the production of goods in the towns. The merchant guilds had not disappeared but were declining in functions and power. Membership in the craft guild was secured usually by first becoming an apprentice. As an apprentice, a workman lived in the master's house, worked with him in his shop learning the craft, and was bound to the master for a certain number of years. After the period of his apprenticeship, the workman became a *journeyman* working for wages, still in the employ of the master. When he became sufficiently skilled in his craft, he could be a master artisan and set up his own independent shop. He could also become a member of the craft guild and take part in its discussions and in its general business as an organization.

Just as the merchant guilds had been monopolistic, so also were the craft guilds. They preserved a monopoly on their own occupation, limiting the number of members and deciding who should become members of the organization. The craftsmen regulated the

Sword Maker

Armourer

Spur Maker

Shoe Maker

Courtesy of Chapman and Hall, Ltd.

Manufacturing in the Middle Ages

These several highly specialized craftsmen were members of the craft guilds. The proprietor is also a worker as well as the salesman.

quality of the product and the wages in the craft, and protected the consumers who used the products of members of the craft guilds. During this period we find considerable discussion of what is known as a *just price*. Such a price came to be considered as enough to cover the cost of the material, plus an adequate wage for the workmen, plus an amount sufficient to keep up the customary standard of living of the master.

This was the period when many *fairs* came into existence all over Europe, and in these the English merchants took a considerable part. This was also a time when everyone belonged to some kind of organization, or even to several organizations; it was a time when emphasis was laid on the corporate rather than the individual side of life. Everything was regulated—prices, wages, hours—and the average guildsman in the town was little freer economically than the tenant on the manor, though he did have a certain amount of personal, social, and legal freedom.

5. Decline of the Guilds. It has been pointed out that the inflexibility that characterized the merchant guilds, in addition to the refusal of the merchants to modify their methods of procedure to meet the demands of new economic conditions that were arising, inevitably brought about the decline of the guilds. So it was also with the craft guilds, with the result that the guild systems completely disappeared and new methods of economic control replaced them.

B. The Commercial Revolution. After the fall of Rome, commerce nearly disappeared. There was no one to keep up the fine Roman roads over which trade had passed, and seagoing trade was slow in developing. But by 1150, while the guilds were still powerful, there began to arise a new force that helped to destroy them. It was the *Commercial Revolution*. This new force was preparing the road to a new way of life. Luxuries were coming from the East across the Mediterranean Sea. From China came rich fabrics and porcelains; from India, spices; and from Egypt, cotton. The Mediterranean cities began to imitate many of the products that were brought from the East. A desire for all these luxuries grew in Flanders, Germany, and England. Money came into use, and the development of banks was rapid, especially in Italian cities. Without the banks there would have been no possibility for the growth of commerce.

The increase in commerce finally reached a point which made it possible for a serf on the manor to become independent; in some cases he bought the land he tilled—in others he escaped to the towns and worked with some degree of freedom. In the towns the guildsmen, finding that their craft guilds were not adequate to handle and finance the new trades that were coming into importance

hrough the growth of commerce, broke away from the guilds and ılso became workmen, hiring themselves out for a definite wage. Thus the Commercial Revolution, beginning in the twelfth century, argely centering in the Mediterranean region, and spreading to vestern Europe and England, was working toward the fall of one ystem and the rise of another; that is, the decline of the feudal sys-em and the rise of the so-called system of *mercantilism.*

Goods were moving through the great fairs and the cities to the ıorth, whetting the desires of people for these new products. At the)eginning of this new commercial life the great discovery of the \mericas had not yet been made.

Our discussion of the medieval period closes with 1450 and with hat date modern times begin. This does not mean there is any hard ınd fast line between the two periods, and it does not mean that nany of the old institutions did not continue into early modern imes. It merely signifies that the methods and means used in the Middle Ages were no longer dominant. A set of new institutions ıitting the new economic life was coming into shape and into :ontrol.

C. Mercantilism. During the fifteenth century a new economic ystem known as *mercantilism* had its beginnings.

1. Mercantilism Defined. It is difficult to name a definite time for he rise of mercantilism to the position of a controlling policy in the tate. However, it is correct to say that it was developing in the ifteenth and sixteenth centuries and remained dominant until the niddle of the eighteenth century. During much of feudalism, ex-hange of goods had been largely a system of barter, or exchanging goods for goods, money being rare. The state was a weak organiza-ion in feudal times; society was directed by the great lords of the nanors. With mercantilism came the use of money and the develop-nent of the nation headed by the king who carried on numerous truggles against the nobles to maintain his power. We may define *nercantilism* as the system of political economy that developed in the European states as power became centralized largely in the hands of kings, following the decay of the feudal system. Mercantilism was broadly characterized by the fact that its policy in the govern-nental regulation of industries, trade, and commerce, especially

with foreign countries, was determined by national aims rather than by local or individual interests.

Mercantilism sought to build up the national strength and prosperity by securing a favorable balance of trade, by developing manufacturing, and by establishing a merchant marine and foreign trading monopolies. Characteristic of the English legislation based

Courtesy of Selfridge and Company

Bartering in One of the World's Early Markets
Phoenicians Trading with Early Britons

on mercantilistic principles were those laws establishing the regulated companies, the Navigation Laws familiar to all Americans in connection with the Revolutionary War, and statutes establishing discriminating or protective tariff duties. The regulated companies mentioned were mercantile associations, like the East India Company, which held by government charter the exclusive right of trade with certain countries, subject to certain regulations to limit the trade so as to keep up prices.

2. Influence of Mercantilism. During the period of its dominance, mercantilism exerted an influence more widespread than that of any economic policy which preceded it. No doubt one element important in bringing it to power was the increased use of money, but it is generally held that the protective tariff policy was largely responsible for its success. The fact that this policy regained its influence and retains it today indicates its power.

The mercantilists had an interesting interpretation of the purposes for which government interference, when necessary, should be used: it should be used to remove causes and not merely effects. Why punish a result and leave the cause as a future irritant? This was one point that the mercantilists seemed to hold in common with the laissez-faire, or let alone, policy of the economists who followed them. However, there was a fundamental difference between the theories of the two groups. The mercantile position, as previously explained, favored the removal of undesirable causes if interference were to exist at all. The laissez-faire policy did not recognize any disturbing causes that must be removed, but believed in an established economic harmony that was self-operating and required no government interference.

3. A Period of State Building. Mercantilism must be looked upon as a period of state building. At least two struggles were going on: the struggle of each newly rising state with other states; and the internal struggles connected with the decay of feudalism and the curbing of the power of the lords by the kings.

4. Theories of Mercantilists. Now let us briefly consider a few of the theories of the mercantilists. First, they distinguished between money and other forms of wealth. The former they called treasure, and they considered it the most desirable form of wealth. In gaining wealth their main object was to make a strong state. To gain this strength the method most approved was that of engaging in foreign trade. But foreign trade needed articles for export; so manufacturing came to be considered important, not to produce for home consumption as in the days of feudalism, but for exporting abroad. Merely to export was not sufficient either; it was necessary, according to mercantilist policy, that the amount exported from a country should exceed as much as possible the amount imported by

the country, so that the balance of trade would be favorable and the difference would come into the country in the form of money or treasure.

Another angle to mercantilism must not be overlooked. During this period, while the king was struggling with the nobles, there was developing a new class which was becoming wealthy through both trade and manufacturing. The newly rich allied themselves with the king, and he accepted their support in order to present a more powerful opposition to the lords. To this new wealthy class he granted many privileges, among them the monopoly powers already mentioned. Also, with the opening of new lands through discoveries in the western world and the consequent colonial expansion, he gave many grants of land to this class.

D. The Industrial Revolution. Mercantilism continued to develop throughout the fifteenth and sixteenth centuries and was still dominant in the middle of the eighteenth century. The mercantilists succeeded in building up strong government regulations over industry and commerce, with the object of securing for the state a large surplus through trade. The continued increase in trade eventually brought about an Industrial Revolution which occurred in 1776.

1. Causes of the Industrial Revolution. In approaching the Industrial Revolution as it developed in England, it may be well first to define *industry*. *Industry* is systematic labor or human exertion employed for the creation of goods. The word *revolution* signifies a total or fundamental change.

With the increase of trade and commerce under the mercantilist influence, the demand for goods manufactured in England grew to a prodigious extent. One of the most popular goods was textiles, but the workmen were still using old methods in making woolen, cotton, and linen cloth. The handling of the raw material for these took a large amount of time as the process was entirely by hand. Wool was combed by hand, and cotton and flax were carded before they could be spun. These processes took so long that six spinners were needed to supply thread for a single weaver, although the weaver also used only a hand loom.

We can best determine the time for the beginning of the Industrial Revolution by taking up the series of inventions that brought

about the great change in industry, especially in the textile industry. James Hargreaves was a weaver. Through the accidental overturning of a spinning wheel he got an idea for constructing a spinning apparatus that would spin several threads with one wheel. He succeeded with his invention in 1764 and called it the *spinning jenny.* With the jenny one spinner could keep one weaver busy and with later improvements could spin thirty threads at a time.

Sir Richard Arkwright's name should come next in the list of inventors. Arkwright worked in 1769. He made several improvements, introducing rollers, so that many more threads could be spun much more rapidly than was possible with the spinning jenny, though the threads spun with the jenny were finer.

Samuel Crompton in 1779 observed that while Arkwright's roller spinning was faster, the jenny was the finer. He worked out a method of combining the two and called it the *mule.* Spinning had now progressed so far that there was great need for changes in the weaving industry. Edmund Cartwright in 1784 invented the power loom. Shortly afterwards, in 1793 in America, Eli Whitney made a discovery which not only affected the English textile industry but also the growing of cotton in the southern states of North America. There had always been great difficulty in separating the cotton seed from the fiber. Whitney's invention, known as the *cotton gin,* solved this problem and greatly expanded the production of cotton, thus making more raw material accessible to the English textile mills.

Wind and water had been used as power in addition to human energy; another step was necessary before it could be said that the Industrial Revolution was really under way. James Watt took that necessary step by discovering the use of steam power. He had found out its possibilities as early as 1769, but it was first used in steam engines in cotton mills in 1785. The country was now ready for the development of the factory system.

Before this series of inventions, spinning and weaving had been done in the cottages of the workers. Even the old-fashioned hand looms could be set up in these cottages. But with the coming of the large spinning apparatus and the power looms it was not possible to use these in the homes of the workers. Moreover, the cost of one of these machines was a considerable amount, requiring much more

Cotton Gin in Arkansas *Underwood & Un*

capital than any one worker possessed. So an individual with enough money or a group of wealthy men formed a company, and factories were built and equipped with the complicated machines. This compelled the men and women who had worked in their homes to hire themselves out to the factory and give up their work at home, for they found they could not compete with the great power-driven machinery of the factories. Trouble arose between the mill owners and the workmen who thus found their entire way of life changed. From working independently for themselves or as apprentices, they became employees of a great establishment with long hours, difficult labor, and low wages.

2. The Factory System. The early part of the nineteenth century saw the factory system in full swing. The use of machinery and power and the multiplication of inventions passed on into all other lines of manufacturing. Iron and steel, necessary for the making of the machines, became a great industry. The coal mines were utilized as never before, and the workman who hired himself out for wages became a part of the new economic system.

3. Laissez Faire. Certain economic theories had marked the period during which mercantilism prevailed. Entirely new theories characterized the coming of the Industrial Revolution. Adam Smith, Scotch economist, who wrote *Wealth of Nations* in 1776, was one of the first to formulate the beginnings of the new theory, known as *laissez faire.* This meant that every man was to follow his own

interests and carry on free competition with his fellow workers, and that it was unjust and unwise to interfere with another man's natural liberty. It should be said that laissez faire was accompanied by individualism. It was claimed that competition resulted in greater efficiency, eliminated wasteful methods, and assured the rise to the top of the men most competent and able to run industry. Of course, this meant that individual initiative was fostered, that private property and the importance of contracts were emphasized.

Since government regulation was to be done away with under the new theory, its place was to be taken by so-called *enlightened self-interest* which, it was claimed, would act as a social control in place of the former government control. Along with enlightened self-interest would go free competition as the forces that would guide society. The best conditions would exist; every man would be free to ask any price he desired and any wage he felt he should have; goods could be bought and sold under conditions of perfect competition among the buyers and perfect competition among the sellers. It was also held that if an individual were seeking his own best interest it would mean that society's best interests were also served, that there would be no conflict between what an individual might consider was good for him and what was actually good for the whole social organization.

The theory of laissez faire, so well expounded by Adam Smith, began to dominate the thought of a large number of intellectual and thinking men at this time and during a large part of the nineteenth century. Gradually its influence was felt among England's statesmen, and it affected legislation. After the close of the wars with Napoleon, a law had been passed to protect the farmers of England and encourage the growth of more foodstuffs. There seemed a good argument for this at that time as the land paid heavy taxes. But by 1839 the Anti-Corn-Law League had grown up, and, supported by the manufacturers who wanted low food costs for their working men so that wages might be reduced, the corn laws were repealed in 1849. This marked what has been called the adoption of *free trade.*

In fact, from then on the government was deprived of all power to control industry and trade. This power had been continuously

built up in the later Middle Ages under mercantilism. An entirely new attitude toward production and commerce now came into existence. Anything written on the economic conditions of the workers of this period when the factory system was young and dominated by the theories previously mentioned, presents a dark picture.

Women and children worked long hours under desperate conditions, not only in the factories but in the coal mines. Strong men broke under the pressure of long hours and unsanitary conditions. Society had moved from an extreme of guild or government regulation to an extreme where no manner of authority even inspected the industrial conditions under which men and women worked. Here and there a voice of protest from some socially neglected person was heard. However, it was still a considerable time before the swing would begin in the other direction, and laws to protect the workers would be passed. Each such law had to meet the argument that it was interfering with free enterprise and was therefore in opposition to the natural law on which laissez-faire economics was based.

KEY POINTS IN UNIT 2

1. Economic system of rural England in Middle Ages, A.D. 1100.
2. Community life carried on by economic order called *feudal system.*
3. All land owned by lord, nobleman, king, or ecclesiastical official.
4. Rural life characterized by villages consisting of a few houses, flour mill, church, and the manor house occupied by lord of manor.
5. Villages surrounded by large tracts of land, including cultivated ground, woodlands, and pasture land; whole known as *a manor.*
6. Manor self-sufficient unit; serfs together with members of their families worked ground and produced all food and clothing used by manor on which they lived.
7. This system provided security for both serfs and lords of manors; a serf sometimes received an allotment of as much as 100 acres of land and enjoyed freedom and privileges of tenant within boundaries of manor on which he was born and on which he inherited right to work.
8. Serf was not free to leave manor; held on land by legal bond.
9. Due to Commercial Revolution of twelfth century, many serfs gained certain degree of independence by individual energy and thrift; some serfs were then able to buy land they tilled; others left land and found work in towns.
10. Towns organized and chartered by a lord or the king.

11. By A.D. 1250, through an evolutionary process there had developed in rural England about 200 towns with markets, merchant guilds, and craft guilds.

12. Commerce carried on between towns and with distant countries.

13. Increase of commerce resulted in rise of *mercantilism* and decline of feudal system.

14. Dominant characteristics of mercantilism were: balance of trade by manufacturing, merchant marine, foreign-trade monopolies, and state building; king headed nation and contended with nobles for power.

15. Mercantilism developed throughout fifteenth and sixteenth centuries and still dominant in middle of eighteenth century.

16. Expanding trade created demands for more manufactured goods.

17. Demands overtaxed hand industries, resulting in mechanical inventions such as spinning jenny, power loom, and cotton gin.

18. Industrial Revolution of 1776; discovery of steam power 1785; factory system established.

19. Theory of *laissez faire* which had been ably expounded by Adam Smith began to influence thinking of statesmen.

20. After close of Napoleonic wars, laws were passed protecting farmers; repeal of corn law in 1849 marked adoption of so-called *free trade*.

Unit 3. An Economic System Developed as to Both Time and Place—the United States

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A. Colonial Industries:
   1. Colonial Agriculture.
   2. Colonial Manufacturing.
   3. Colonial Commerce.

B. Industries of the Independent United States:
   1. Agriculture.
   2. Other Industrial Developments.

A. Colonial Industries. Barring hunting and fishing, agriculture is, of course, the oldest industry in America. Long before the white man came, the Indian was carrying on farming in no mean way. Early white settlers and explorers found fields cultivated by the Indians on the banks of the Mississippi and St. Lawrence rivers, in the Ohio Valley, and in fact extending from Canada to the Gulf of Mexico. The white man's agriculture should be considered in

three areas: the North or New England, the Middle Colonies, and the South.

1. Colonial Agriculture. Some of the New England land was granted to the original settlers, and some was bought. New England farms were small, at the beginning resembling somewhat the villages of England where the farmers lived together in small communities and cultivated the surrounding land. Later, towns began to grow up, the farmers sold their single strips, and the individual farmer with his independent farmhouse and barns dominated New England agriculture. It was much as it is today. The soil was poor, the climate harsh, the farming methods used were inefficient, the treatment of animals, if possible, worse. Farmers of this area could raise good rye and buckwheat, but wheat was not a success; apples were imported from England and grew well.

Indian Plowing

In the Middle Colonies the land was held by ownership of small farmers, except along the Hudson River where there were large Dutch and English holdings as there were also on the Chesapeake Bay. The soil was rich and the climate more like that of old England, so agriculture was practiced much more successfully than in New England. Many different nationalities came into this region, including Swedes, Dutch, English, and Germans. They brought different methods of farming and also imported various strains of animals. Excepting furs and lumber, most of the exports of Colonial America were agricultural products such as corn, oats, potatoes, wheat, and various fruits.

In the Colonial South, land was held mostly in large plantations; if possible, with a river bank accessible where the bulky exports might be loaded. Wheat was not good in this region, but tobacco was grown almost everywhere, even in the streets of towns. Corn was cultivated, and rice and indigo also became products. Cattle ranges were a feature, but animals were as badly treated as in New England. Free white labor existed, but considerable white labor also was in the form of indentured servants who were not free.

Already slave labor had become an important factor, especially for working the hot, swampy land where rice was grown.

In our survey of Colonial agriculture, it may be pointed out that the early American farmers, in their impatience to produce, wore out the land and took no care to restore it through fertilization; they merely took up new land when the soil was too badly exhausted. They adopted the two great staple crops from the Indians—corn and tobacco—and also found out which European crops could be successfully grown in American soil. By the close of the Colonial period, the farmers had taken up much of the land west to the Appalachians and, notwithstanding their poor methods of farming and handling stock, were probably the most prosperous farmers in the world.

2. Colonial Manufacturing. In the early days of the colonies every home was more or less self-sufficient. The manufacturing was of a household nature and did not yet differ materially from the conditions in England where many of the early settlers had lived. In New England there was, of course, no large-scale farming, the settlers finding it somewhat of an effort at first to raise even enough to meet their own needs. In the beginning, the main manufactured articles were from products of their forests—boards, naval supplies, and potash. Their first great industry was shipbuilding. Fortunately they had forests of white pine, fir, and oak, and could produce tar and turpentine. Many ships were needed in the coastwise trade and for the fisheries, but many also were sold abroad because the lumber in western Europe was becoming scarce and expensive. At this time a large percentage of the boats sailing under the British flag were built in America.

The textile industry was developing, at first especially that of woolens. Sheep had been brought from England as well as the spinning wheel and hand loom. It was expensive to import English woolens because of the great distance they must be shipped and the time required to make the trip; so Americans went clothed in their homespun. By the end of the Colonial period there were the beginnings of a factory system; and excellent broadcloth was being made in Philadelphia.

Linen was another textile that was used for all purposes, even more than was cotton. Because of the difficulties in separating the

fiber and the seed, cotton did not come into great use until after the invention of the cotton gin in 1793. But spinning of wool, linen, and cotton was greatly encouraged by the Government, and a spinning school was started in Boston.

Another important manufacturing business developed, using minerals, especially iron. Ironworks were set up in Massachusetts as early as 1643. The colonists stood in need of nails, wagon tires, sleigh runners, pots, kettles, and numerous implements, both for farming and for manufacturing operations. They set up iron foundries, but the British did not like this; they wished the colonists to buy these products from England (the mother country selling the manufactured product to the colonists). Papermaking was developed, and the business of printing and bookmaking grew to considerable size.

3. Colonial Commerce. The efforts of individuals to found settlements in America had largely failed. Chartered Companies were formed. These succeeded in establishing settlements with the main purpose of building up trade that would pay an income to their investors. Such companies prevailed in the early seventeenth century. Soon these Chartered Companies were bought out or their charters were revoked. From then on to 1660, when the Navigation Acts were passed, Colonial commerce was carried on with freedom and practically no restraint. The trade consisted of sending to Europe timber, furs, fish, tobacco, ships, and grain. By the eighteenth century, Philadelphia had become the main port for the export of grain. In return the Colonies received wines and clothing. The latter part of the seventeenth century and the early part of the eighteenth saw a well-developed overseas and coastwise trade even in the face of piracy, the Navigation Acts, tariffs, and war.

B. Industries of the Independent United States. *1. Agriculture.* Through the early years of the nation there was a continuous movement to the cheap land of the West. Finally, in 1862 the Homestead Act, with its grants of free land, was passed. We have already considered the poor methods of farming that prevailed in Colonial days, the way in which the farmer moved on to new soil after the land was worn out. The cheap lands of the West had started a spirit of speculation; farmers in the East sold their already

worn-out land and moved farther west. A restless spirit permeated the entire industry. Moneyed interests speculated in the cheap land, buying it up before the Homestead Act was passed. In addition to all this, the methods of farming grew even worse, if that were possible, because of the opportunity for robbing the land of its richness and then moving on to new land.

While these upheavals in land holdings were in process some changes were taking place in the crops raised. With the advent of

In Pioneer Days the Pony Express **Was the Last Word in Rapid Communication**

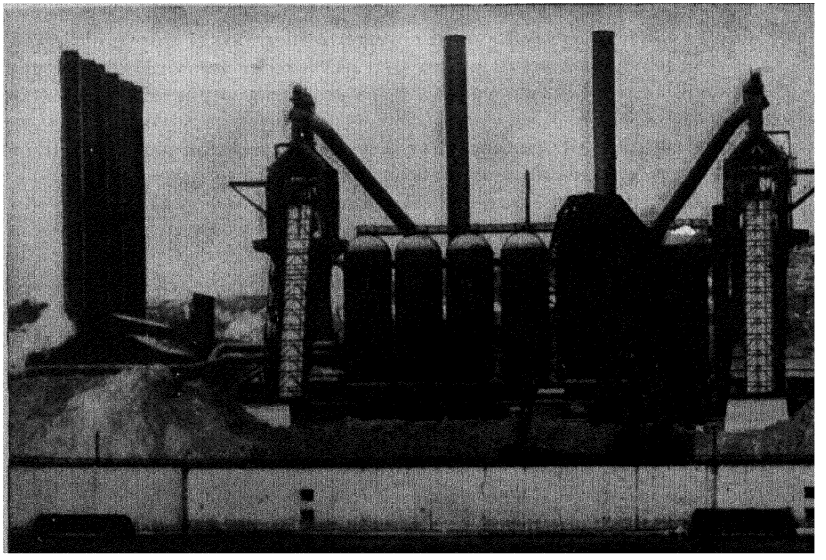
the cotton gin, cotton had become by 1830 the most important crop in the country. This had been greatly aided by the inventions in England, previously discussed, which made the demand for the export of cotton large and continuous. In 1810 cotton was only 20 per cent of America's entire exports; by 1860 it had risen to 57 per cent. In the Colonies, tobacco had been the largest crop but had declined through several causes, among which were the Embargo Act, the War of 1812, and the competition of Cuba. Tobacco, which had been Virginia's leading crop, began to move westward to Kentucky and Tennessee. By 1861 there were 1,844 sugar estates in Louisiana producing 235,000 tons of sugar, the estates being capi-

talized at $60,000,000 and using 51,000 slaves. We find also the development of scientific farming. This was due to the growing scarcity of unoccupied land, to the state aid that was being given to research, to the spread of agricultural education, and to the new labor-saving machinery invented for use on the farm.

Further, the three frontiers that have marked American history were coming either to the climax or to the close of their development. In the search for gold, mining, which began early in the history of the United States, continued to move westward to the Pacific Coast, tapping the intervening areas. Lead mining along the Mississippi River in the first half of the nineteenth century and the discovery of gold in California in 1849 are high points in the history of mining in this country. As to the ranchers' frontier, by 1890 the great cattle drives of the prairie regions west of the Mississippi had ended. Certain reasons contributed to this: first, the westward movement of farmers; second, illegal enclosure of large tracts of land by the ranchers for cattle grazing. The westward movement of the farming frontier also ended about 1890. The farmers had caught up with the ranchers and all good free land had been taken.

2. Other Industrial Developments. In New England, ship building still continued to be an important industry. Between 1830 and 1860

Blast Furnaces of Carnegie-Illinois Steel Corporation *United States Steel Photo*



clipper ships were produced in considerable numbers. However, the whole industry began to fall off because of the overproduction in wooden ships which had prevailed for some time. With the introduction of steam for ocean navigation, iron-clad ships gradually replaced the wooden ships.

The Industrial Revolution in the United States followed much the same pattern as in England. The steel industry, with textiles, was probably the most important from the beginning and has continued so. For a number of years America lacked capital, labor, and means of transportation; but gradually, with cheap raw material, water power, and the development of skilled labor, American manufacturing was put on a firm basis.

KEY POINTS IN UNIT 3

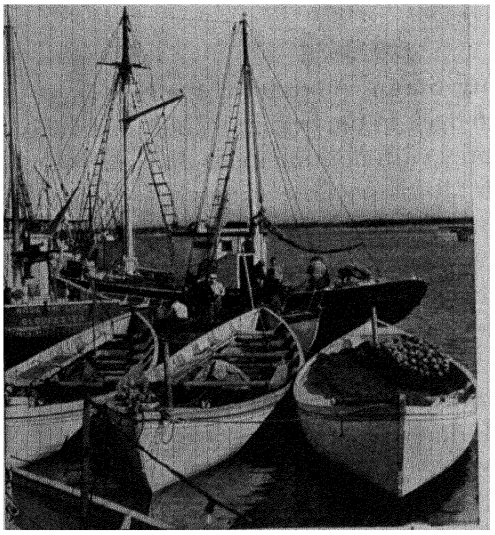
1. Hunting, fishing, and agriculture, first industries in United States; Indians engaged in all these before coming of white explorers and settlers.
2. Agriculture developed rapidly after coming of white men.
3. Early exports from Colonial America included lumber, furs, fish, tobacco, cotton, grain, potatoes, and various fruits.
4. Tobacco grown extensively in southern states; Eli Whitney's invention of cotton gin greatly stimulated cotton growing in South.
5. Abundant water power of New England region tended to encourage development of manufacturing plants; these included ship building, textile industries, paper making, and printing of books.
6. Iron works established in New England as early as 1643; increased production of iron ore influenced change in methods of ship building.
7. Discovery of steam power in 1785 further encouraged changing methods of ship building; wooden ships gradually replaced by iron-clad vessels.
8. Extensive development of iron and steel industry stimulated manufacture of farm implements and household equipment.
9. Industrial Revolution of 1776; further expansion of iron and steel industries; increased capital due to large-scale agricultural and manufacturing projects; factory system established.
10. Independence of Colonies inspired further extensive development of all American industries; cheap land caused constantly increasing immigration from East toward interior; Homestead Law an added stimulus; cheap raw material, water power in abundance, and training of skilled labor had established American manufacturing on firm basis by end of Colonial period.

Unit 4. The Economic System Viewed as a Series of Stages

A. Fishing and Hunting Stage.
B. Pastoral Stage.
C. Agricultural Stage.
D. Hand-Industries Stage.
E. Industrial Stage.

A. Fishing and Hunting Stage. A study of the first stage of man's economic life might go back to the beginning of human existence when man hunted his prey with nothing more than unchipped stones which he threw with all his possible strength; or when he seized a fish with his bare hands. Gradually man began to make tools; he chipped the stones and constructed a bow for shooting the arrow he had tipped with a chipped stone. He enticed fish to lines made of soft sinews of the animals he had killed. However, this stage is not confined to primitive man. It characterized many of the Indians whom the white men found in America. Many Indians had associated their hunting and fishing with agriculture. The white men on the frontiers in America found themselves frequently driven to both fishing and hunting in order to have meat. Hunting and fishing, especially the latter, have not died out, although they have for the most part become amusements or pastimes. Exceptions are the great fisheries (carried on by men of New England from Colonial days to the present) which constitute, both in the Atlantic and the Pacific, a great and important industry. Hunting continues today largely as a sport. The hunting and fishing stage required a considerable territory over which men could rove if any considerable population were to subsist; as a matter of fact the numbers of those who so subsisted were usually comparatively small.

Since it was the men who carried on the work of hunting and fishing, the women were the early agriculturists. They remained at home taking care of the shelter and the children, and watching the fields they had planted. This was a form of division of labor. It should not be assumed that the men of the Indian tribes were lazy; they not only hunted and fished, but they had to carry on the defense of the tribe and their homes, and so were frequently engaged in warfare.



Harold M. Lambert Photograph

Fishing Boats, Gloucester, Massachusetts

B. Pastoral Stage. We may call the next stage the *pastoral stage.* Originally this had to do with shepherds who cared for sheep, but it broadened to include herds of other domesticated animals. It has been stated that from seventy to eighty square miles of territory are required to support a hunter, while under the pastoral stage one square mile of land will support at least two persons. In the hunting and fishing stage, the animals needed for food were killed; in the pastoral stage animals were domesticated in considerable numbers, the young were kept to increase the herds or flocks, and the animals were used for food when food was needed.

Under hunting and fishing there was little property directly owned by the individual. He possessed his few simple implements, but the land was held in a loose way by the tribe and was not privately owned. In the pastoral stage, land was still largely the property of the group, but the flocks and herds were the property of individuals or of a family. Some families became considerably wealthier than others so we can say that the beginnings of economic

classes were appearing. Such pastoral or nomad people still range over some parts of Russia in Asia, and much was said of nomads in ancient Hebrew days. Exchanges of goods were still largely made by barter although some pieces of gold, not of course made into money, were also used in exchanges.

C. Agricultural Stage. First, men domesticated animals; meanwhile he was gathering wild rice or other grains, frequently securing them in sufficient quantities to store away for the winter season in some of the earthen pottery that was being made. Finally, due to his developing thought, and no doubt somewhat by accident, he planted seeds and found that plants could also be domesticated and produced, and their seeds saved to use when the need came.

In the earliest days of agriculture, private ownership of land was little known so far as those who actually cultivated the soil were concerned. Land was held in common and was only temporarily allotted; this continued, as already mentioned, up into the Middle Ages. In the United States the fishers and hunters, Indian and white, were moving across the continent; then came the ranchers with their herds, and finally the farmers. As a whole, the American farmer has been the owner, if not a tenant, of the land that he cultivated, so that private property in land has marked most of the history of the United States.

Of course in the agricultural stage of society men had to live in permanent places. They could no longer roam over great territories as the ranchers did to feed their herds. As in the pastoral stage, each family provided for itself practically all that it needed.

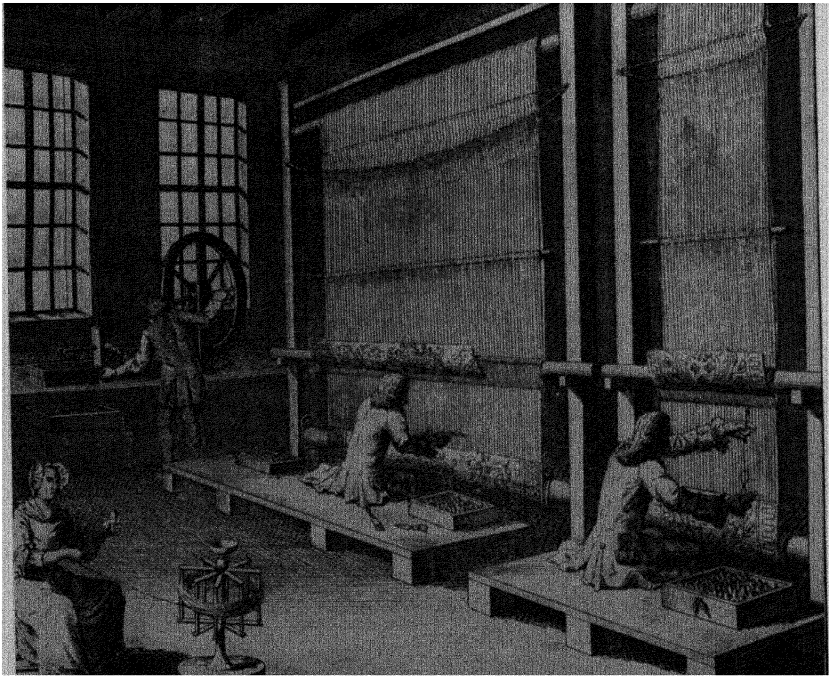
D. Hand-Industries Stage. While the early agricultural stage was in progress, hand industry prevailed in the small-town communities and in the homes of the farmers. The old-fashioned high spinning wheel was used by the women of the family, and the hand loom occupied a place in practically every household. Gradually, as the making of goods became more and more important, some of the households that had formerly been merely self-sufficient began to produce goods to be exchanged. In many cases, the men of the family took over some of the spinning and weaving processes that had been done by the women, and apprentices were taken into the

house to learn the craft and to aid in producing a greater amount of goods to meet the rising demand.

Not only spinning and weaving were carried on in the home, but also practically all the articles used in the rather simple society of the time were made in homes. Here, then, we find the beginnings of organizations of all those working in a particular line. These organizations became eventually craft guilds in Europe. Craft guilds never developed in the handicraft stage in America as they did in feudal Europe and England. In the later feudal days, the developing cities of England engaged in trading, struggled against the control of the lords, and finally became free cities. It was then that the workmen of the cities became free men, and the serfs who could escape from the manor to a free city were free men. Political freedom was developing.

E. Industrial Stage. The inventions that changed industry from handwork to machine production and brought about the fac-

vers at Work in the Louvre. Reproduced from an Illustration in Duhamel du Monceau's
'e *Faire Les Tapis Façon de Turquie,* printed in 1766 *Courtesy of the Hoover Company*



tory system have already been discussed. One of the important changes that took place was in the ownership of the tools or machines with which men worked. Under the hand industries, the workers owned the tools with which they worked, all except the apprentices, who were learners only and looked forward to a time when they would have shops of their own.

Under the industrial system all this was changed. The cost of the new machines and of the factories in which to house the machinery was so great that individuals, as a rule, could not provide the capital. Companies were formed, and the owners of the factories became a part of an economic class entirely different from that of the workmen who provided the labor power. Division of labor also developed in the industries, and competition began to make itself felt between large factory producers. Gradually concentrations of wealth began to appear, and it was evident that there was a tendency to move toward monopoly. How should this be met? The public as well as the workmen needed some protection. The only means of control of the situation seemed through the government.

It has been shown that the production of goods was largely for the household in the fishing and hunting stage, the pastoral stage, the agricultural stage, and the hand-industries stage. Toward the close of the latter stage some exchange of goods went on, but, with the development of the industrial stage and the resulting factory system, goods were produced for exchange. This meant that to the process of making goods there was added a new activity, the transportation of goods from the place of production to the consumer. All manner of new institutions grew up—banks, insurance companies, transportation lines. Money came into continuous use, and credit was largely developed. All this brought us into the *capitalistic system*, or, as it is sometimes called, *the roundabout method of production*, or *the individual exchange order*.

KEY POINTS IN UNIT 4

1. Five stages in development of economic system: fishing and hunting, pastoral, agricultural, hand-industries, industrial.
2. *Fishing and hunting* of primitive man provided for his needs.
3. White men on American frontiers often forced to resort to primitive methods of obtaining food.

4. Large tracts of land required for tribe fishing and hunting; land considered common property of particular group or tribe.

5. Increasing population created need for better methods of providing for family life; *pastoral stage* met this need temporarily; animals domesticated; land still held in common; individuals or families owned flocks and herds; smaller tracts of land per person needed.

6. Pastoral life, as well as fishing and hunting stage, produced nomadic type of living; men moved from place to place wherever food was plentiful or more easily obtained.

7. With continued increase of privately owned flocks and herds and raising of grain came *the agricultural stage;* men cultivated their fields; permanent homes were established; temporary dwellings gave place to substantial houses; women turned to hand industry.

8. In early American households, practically all articles used in home were produced by members of family; spinning and weaving became important hand industries; clothing for family was homemade from homespun materials; *the hand-industries stage* had arrived; hand-craft guilds did not develop in America as they did in Europe.

9. Mechanical inventions of the eighteenth century gradually increased production of manufactured articles; factory system established; exchange of manufactured goods became prominent factor in American life; this produced *the industrial stage.*

10. Increased production of goods; cheap raw materials; increased capital for production of more goods; trading companies formed; division of labor; new institutions established; finally new economic system known as *capitalism* established.

Unit 5. Systems Determined by Control of Economic Power

A. Capitalist System.
B. Russian Soviet System.
C. Economic Conditions in China.
D. German-Nazi and Italian-Fascist Systems.

Four economic systems are to be treated: the capitalistic system, the Russian Soviet system, economic conditions in China, and the German-Nazi and Italian-Fascist systems. The soviet and Nazi-Fascist systems are presented, not because they necessarily represent

any permanent trends, but because they exist as large-scale experiments in social control; the soviet system probably represents a forward-looking development, while the Nazi-Fascist system is characterized by a return to much the same conditions of slavery that existed in Egypt in the time of the Pharaohs.

A. Capitalistic System. Comparatively little space will be devoted here to the capitalistic system, since the book as a whole is largely an exposition of that system and the theories that form the basis for its organization. However, a few points must be dealt with, especially in the relations of government to economic institutions.

In every economic system there are at least three problems around which the system is organized. These are: first, the problem of producing goods; second, the distribution of the product—or the national income, as we shall call it—among those who shared in its production; third, the consumption of goods .

One characteristic of the capitalistic system, on which much emphasis is laid, is that free private enterprise prevails. *Free private enterprise* means that each individual may enter whatever industry he desires, and make any arrangements he wishes as to the price at which he sells his labor. If an enterpriser, he may start any type of business he wishes. Any consumer may go into the market and buy any kind of goods he wishes, and any individual may refuse to engage in any kind of occupation that he does not wish to enter. In this economic system, the government is not to meddle in business, except insofar as is necessary in order to stop violence or fraud, or when it is called in to enforce contracts.

As to the first problem—that of production of goods: in a society allowing free private enterprise, what particular factor governs or controls production if each individual is free to do as he likes?

Perhaps one of the most commonly accepted answers to this question is that the guiding principle is profit, which will be the difference between the cost of producing goods and the price at which they will sell. This may be illustrated: A given enterpriser has put his capital into the production of women's wool sweaters. A war is on, and most of the wool must be used for soldiers' uniforms. This has raised the price of raw wool, which in turn raises the cost of sweaters. The price at which sweaters can be sold cannot be raised

proportionately, and not enough sweaters could be sold to make what the enterpriser considers a sufficient profit. Meanwhile, a great demand has arisen for women's rayon dresses, and with slight changes in machinery he can make these dresses. The profit here may be large, so the enterpriser changes his product. Capital, it is assumed, will move where it can secure a large profit; and the price that people will pay, reflected in their demand for the goods, will determine how large the profit will be.

Later, when we consider the second problem, distribution, we will find that the shares of the national income which will go to the factors of production—land, labor, capital, and the enterpriser—will also be determined by price, at least theoretically, since rent, wages, interest, and enterprisers' wages are prices paid for the services of the factors of production. Capital will not be used by the enterpriser to hire labor if that labor cannot be used in such a way as to secure a profit. This is a part of the answer to the question of what controls production in a society of free enterprise, according to the theory of a considerable number of economists.

The third problem under the free enterprise system, that of the consumption of goods, is also solved by price and the purchaser's amount of income, or ability to pay. If he desires a commodity but has not sufficient money to buy both it and some other object that he perhaps not only desires but also needs, he must limit the purchase of the first in order to secure the second. In this way the amounts that consumers have to spend for goods make a great difference in the demands for goods, and thus influence the quantity that the enterpriser will produce and put on the market at given prices. To clarify this: if demand for a commodity should rise and the cost of producing it should not, the profit would increase, more capital would move into that industry, and more goods would be produced. If the demand should fall off and the cost of production should remain the same, the price might fall but the net profit would in all probability also fall. The consumers would be taking less and at a lower price. All of this will be illustrated with graphs as we proceed.

It must be kept in mind that the interpreters of capitalism make competition a great controlling force in the economic system. When

the position is taken that individual initiative and free enterprise must prevail, it is held that the controlling force that restrains the selfishness of the individual is competition. However, economists hold that, to perform its controlling function, competition must operate under certain conditions. There must first be some equality in the bargaining strength of the buyers and sellers. Assume for example that there are five jobs to be filled by skilled workmen, and 100 are competing to fill these places. No single workman has bargaining power equal to the single employer, and under these conditions there is no competition (no equality of bargaining strength) and wages would be controlled by the scarcity of jobs. There are other things necessary to make competition a regulatory force. Buyers and sellers in a particular market should possess adequate information of qualities and amounts in the market and likely to be taken from the market, in order to use intelligent judgment in selling or buying. Another point stressed by some economists is that we must assume that buyers and sellers will do business only with those firms that have the public welfare in mind in all of their dealings. For this reason great efforts are made, especially among Trade Associations, to build up codes of business ethics that will provide for fair competition.

Why is the present system called a *capitalistic society?* As we proceed we shall find that the four so-called *factors in production* are land, labor, capital, and the enterpriser. In our complex society, capital is a necessary factor; it consists of factories with their machines, railroads with their rolling stock, and in short everything aside from land and labor that is used in the productive process. The group that organizes and controls production is the class that owns or secures the use of capital, and the interests of capital are represented in their control. Hence the name capitalism is applied to the system as a whole. The profits made by privately owned business are distributed to the owners.

A more or less serious problem facing capitalism is the fact that monopoly has been growing with the rapid development of large-scale industry. Step by step, competition of the assumed type has been disappearing. We will take up this subject much more fully under our study of theory. It will be necessary also to consider the

gradual growth of government control through regulatory legislation and the creation of commissions and the building up of a body of court decisions bearing on undue restraint of trade and commerce.

B. Russian Soviet System. This is the economic system of Russia, or the Union of Soviet Socialist Republics. In Russian, the word *soviet* means *a council*, and it was used far back in the reign of the czars to designate a council of a particular kind of occupation, as the soviet of the sailors and seamen, the soviet of medical workers, the soviet of miners.

The revolution that took place in 1917 was a complete uprising of the entire body of Russian workers, organized in their soviets or councils. The czar's troops did not support him, and the revolutionary forces won control. The organization of the government need be considered only to the extent that it bears on the economic control; however, since these are basically inseparable in the Russian system at times, the government and economics will be considered as one. In other words, in Russia the state is considered all important because it brought about the revolution and shaped the economic organization that has succeeded it. As a result the government and economic life of Russia blend into each other at most points almost inseparably.

A word as to the organization of the state: the Union of Soviet Socialist Republics is composed of sixteen republics organized into a federal state. Each separate republic has control of local affairs. Control over several functions was granted to the federal government by the constitution of 1936, examples of which are: political and commercial relations of the U.S.S.R. with other nations, the making of basic labor laws, the budget for the federal state, and taxes that are intended for the central government. One of the republics included in the national government, the Russian Socialist Federated Soviet Republic, controls about three-fourths of the area of the Soviet Union and nearly two-thirds of the population.

The laws of Russia must meet the following conditions: any one of the sixteen republics making up the Soviet Union may secede from the U.S.S.R.; second, that all nationalities within the state may organize their own life politically, economically, and culturally as they wish, being free to set up local governments, schools,

and courts (there are about 180 nationalities in the state); third, all large-scale industries, land, forests, minerals, and transportation systems remain the property of the government.

It is impossible to discuss here the large number of administrative units that exist in Russia, but it is necessary to remember that they are the point of contact between government and industry. Much use has, of course, been made of the method of trial and error; where a thing could be made to work it was retained; if not, it was discarded.

Touching briefly on certain occupations: Considering farming first, probably two-thirds of the people of the country are working on the soil, hence this industry is of prime importance in Russia. This occupational group has caused a considerable amount of trouble in the Union. The peasant, for the most part, has been individualistic in wanting his own piece of land and wishing to enjoy his own produce; the government wished to increase the size of the farms, use more machinery, use scientific methods, work collectively instead of individually, and remove all idea of landlords who would have any special claims based on ownership. It is reported that by 1938, 90 per cent of all the farming of Russia was carried on by collective and state farms.

Turning next to manufacturing, all large-scale industries are owned and operated by the state. These industries are divided into heavy industries, light industries, machine-building industries, food industries, and timber industries. Perhaps their names indicate sufficiently what products they manufacture. Each of these divisions is under the control of a commissariat; under the commissariat are the trusts which have charge of the technical details of the productive process, and the so-called combines or administrations which have charge of the administration of the industry.

It should be noted that public utilities and foreign trade are entirely in the hands of the central government. It has perhaps been sufficiently pointed out that, when the revolutionary government came into control, it took over the ownership of all land and all manufacturing industries. This collective ownership still prevails.

There are approximately 40,000,000 workers employed in the industries of Russia, not including the collective farms. The Labor

Code of the Soviet Union sets the hours and the limits between which wages are placed. Seven hours a day with every sixth day off is the usual working time in the industries. Children under 16 are not allowed to work. Two-thirds of all the workers employed in industry belong to unions. There are no strikes, for the workers are the state, and their employer is the state. To strike against themselves would not be logical. They carry on educational work, confer with plant management as to ways of securing the greatest degree of efficiency, and carry on collective bargaining with the management.

It may be asked what incentive is there for a man to work under such a form of government? As under capitalism, so under sovietism, he receives a wage. Are there any other incentives? Prizes of greatly wanted consumers' goods are frequently given as a reward for especially excellent efforts by a worker. Vacation trips and theater tickets are other rewards. Further rewards used may be the bestowal of certain honors, such as making the worker a member of some Order or giving him a Badge of Honor. Wages are by no means all the same in the Soviet Union. Excellence in production and speed are recognized and rewarded with higher wages.

We found that under capitalism the making of profit played a large part in the economic system. What about profit in Russia? It is true that goods there are often sold at a price greater than the cost of production. This then amounts to a *profit*. Where does it go? One of its main uses is for educational purposes; second, it may be utilized to expand the industry that made the profit or to aid some other industry that has not made so large a profit; third, it may be used to help meet the regular government budget. In other words, a profit in the Soviet Union becomes the possession of the government, to be used in what is considered the best way to improve conditions for all the citizens.

It is not possible to go into any detail in discussing planning in the Soviet Union. However, a few outstanding points can be touched on. Russia presents a planned economy, but it is more than economic planning alone. The Russians themselves consider it a social economic planning. Their planning includes more than the planning of their industries; it also means the planning for educa-

tion, health, recreation, and many cultural activities that have to do with the various arts.

The highest body in Russia concerned with state planning is known as the State Planning Commission and is a part of the executive cabinet of the government. This commission performs two functions: first, it draws up the plans, including plans for all the fields mentioned in the preceding paragraph; second, it keeps a careful check on the way in which these plans are being carried out. A vast amount of statistical work is required, and scholars from all of the country's educational institutions are consulted. The commission is not committed to any plan if it is shown that the plan does not work. Numerous changes are made to secure improvement. After a tentative plan has been drawn, it is subjected to criticism from numerous bodies. Since a fairly definite objective has been worked out by the commission before the tentative plan is drawn up, the criticisms and suggestions offered by the groups to which it is submitted are on the character of the objective as well as on the probability that the plan suggested will accomplish its object. The final plan is not drawn up until it has gone through this rigorous examination. When it is at last completed, it is submitted for adoption to the government and the party. Thus planning has become an integral part of the Soviet Union.

C. Economic Conditions in China. The International Labor Office of the League of Nations makes the following statement concerning China in its publication issued from Montreal in 1943:

> The economic policy of the country (China) is no longer passive as it was before the war. The war has effected a radical change. *Laissez faire* has been replaced by a policy of controlled economy. It has been a great step from an unplanned and unorganized economy to a planned and organized economy, and from divergent to unified control. The State, which is no longer content merely to promote, encourage, and protect agricultural, industrial and commercial enterprise, is actively participating therein. . . . Collective farms operated on scientific lines have been gradually developed.[5]

Concerning the co-operatives of China in 1927 there were 584 societies with 14,000 members; in 1943 there were 110,000 societies

[5]General Ho Yao-Tsu, *Economic and Social Policy in Free China, Economic Policy in Wartime*, International Labor Office, Montreal, 1943.

with 9,000,000 members. Control committees were set up. All things relating to the food of the armed forces were in the hands of the military authorities. For civilians there was first set up a control committee called the Agricultural Credit Administration, which gave place in 1940 to the National Food Control Bureau, to which was transferred all the food control machinery. Much has been done to stabilize prices and such efforts have been fairly successful.

In 1942 an Act was promulgated requiring workers to belong to their respective trade associations. Officials of the Associations were to be elected by the members. The Ministry of Social Affairs, in charge of these trade associations, undertook to organize model labor unions so as to give practical demonstration of the operation of the associations of labor.

The co-ordination of industrial production in reference to raw material, machinery, and power began to be worked out by various administrative bodies of the government as early as 1937, and by 1942 the plans carried out showed that they led definitely toward government control of private enterprise. In addition to co-ordinating raw material, machinery, and power, marketing was also fitted into the general economic plan as an activity to be regulated, and much attention was given to determining essential goods, especially of consumption goods, and then giving preference to those considered necessary.

D. German Nazi–Italian Fascist Systems. Although the Fascist system came into existence before the Nazi system, they have moved in such similar lines that it seems advisable to handle them together. While there are differences that will receive some attention, the emphasis will be laid on points that are similar. In Germany the centralization of both political and economic power has perhaps been carried farther than in any other modern government. The government is headed by the so-called *leader*. He delegates any power he sees fit, both on the political and economic side, to other officials. This idea of the leader dominates both the economic and political life of Germany.

Perhaps the most clearly defined economic policies of Nazism can be summarized in the following statements: capital exists for the state primarily; the Nazi party extends favors to promote enter-

prise and production, and recognizes the basis of the state as being in private property; in such a poor agricultural state as Germany, the success of the German farmers must be secured at all costs; unemployment must be absorbed in trade and professions; restrictions must be imposed on the export of capital.

The Nazi debt policy has a certain relation to the party policy. It is held that a debt between nations cannot be collected except by war, hence a debt is advantageous for a dishonest debtor who does not expect to pay. Honesty is determined by the state's highest interest. A dishonest debtor has all the advantage in trade if the state supports him. Between 1919–1923 Germany sold paper money to the United States and then inflated its currency and wiped out the debt. From 1923–1929 they sold municipal bonds, then the moratorium wiped out both the municipal debts and the Reparations in 1931. In 1933 they sold goods to South America and gave credit for payment by deposits in the Reichsbank (state bank of Germany), against which the South Americans might draw to buy German goods. They then raised prices so that it was impossible for South America to buy goods. Another of their methods of financing was shown when they bought whole crops from South Americans, then refused to pay except on an artificial paper-money basis. They then resold the goods and demanded payment.

A further principle that dominates Nazi thought is that within the nation the interest of no group shall come into conflict with that of the Reich. All interests must be welded together in making a unified political and economic structure, the state. It should be recalled that this angle of Nazi thought is not new. German economists such as Friedrich List and statesmen such as Bismarck laid great emphasis on the importance of the state and belittled the importance of the individual. When Bismarck fostered certain social legislation such as old-age pensions, the Social Democrats of Germany believed that he was doing this simply to weaken their movement. As a matter of fact, that was but one of his aims, which were primarily to unify and strengthen the state by making all classes and individuals look to the state as the source of all strength. So Nazism had as a background, much in the way of socialism, which minimized the individual, looking on him merely as a pawn to be

moved as the all-powerful state required. This is the same theory on which the Japanese work—the state is all; the individual, a mere tool of the state.

The policies stated by the Nazis as to their intentions for world domination can be summarized as: first, the domination of Europe; second, the colonization and domination of Africa and South America; third, the economic penetration of North America. Certain typical theories were worked out in connection with their control of Africa; the colonies were to be worked by cheap slave labor since there was to be no great migration of Germans to Africa, except for a small army; all welfare and education of the natives was to be abandoned, and Africa was to supply cheap raw material which, when worked over into German manufactured goods, would enable Germany to undersell the world. Finally, it is held that German management and sense of organization are so superior to those of the rest of the world that other countries will be unable to compete against them.

Germany is organized into what are called *estates*. An estate is an organization of economic groups under governmental direction, enabling the state to exercise control over the entire economic system. These estates include: Agriculture, Industry and Trade, Handicrafts, Transport, and the Labor Front. The national government abolished both the employers' associations and the trade unions that had existed in Germany. In their place were substituted the Estate of Industry and Trade, for the employers' associations, and the labor front, for the Trade Unions.

As to the attitude toward private property, nominally at present private initiative and property are allowed by the government; however, the estates just outlined have the power to use private property to their own ends. Neither is there anything to prevent the government from infringing on any of the so-called freedom that industry may seem to have now nor is there anything to prevent government from completely taking over all property if it so desires. So long as the privately operated industries produce satisfactorily and assume the risks and follow the directions given them by the government, the state evidently does not plan to take over their operation.

Both the German and Italian systems have made a great effort to establish *autarchy*, meaning economic self-sufficiency. Russia can be self-sufficient within its own borders, with proper planning; Germany and Italy can be so only temporarily, hence they go to war to expand and secure long-run self-sufficiency. Germany and Italy, in their efforts to produce the greater part of their food products, have been compelled to raise the price of some foods much higher than the price prevailing in the world market. The various parts of the world specialize in the production of certain products, and any attempt to produce these under unfavorable conditions means a comparatively large cost.

The population of a country that thus attempts to produce all that enters into modern demands will find itself forced either to do without many things or to produce them at a cost far above the world level of cost. How far private initiative can continue to carry on business when each activity of the industry is directed by the government, is a question of much importance. For example, the amount of raw material is rationed, a permit to enlarge business must be applied for, and much surplus must be invested as ordered by the government. These totalitarian governments have already taken possession of raw materials, dictated the use of capital, and regimented labor. It is but a step farther to take over industry under the plea that it is necessary.

Standards of living are deteriorating in both Germany and Italy, and there seems to be a decided trend toward socialization. Since due to their foreign policy there is no possibility of reduction of government expenditures, there is but one other alternative that of socializing private property.

As to economic planning, the Germans have claimed that they do not intend to extend planning to all parts of the economic system as is done in Russia; nevertheless, control is exercised by the government and the dictator rules every branch of economic activity in Germany. It is probably correct to say that it is not so comprehensively planned as it is in Russia. A part of this is probably due to the fact that in Germany all the emphasis has been directed to making the country self-sufficient instead of organizing a really comprehensive long-run plan as has been done in Russia.

SUMMARY

Chapter I has dealt with the rise and development of economic and social systems with their concurrent institutions, meaning by institutions the relationship existing in a group. We have gone back to medieval times and discussed the manor, the towns, and the guilds as institutions in the feudal system; following this period and growing out of it came *mercantilism*, a way of thought that shaped the customs of the people for a considerable time. *Laissez faire*, also having its roots in the past but differing considerably from its predecessor *mercantilism*, accompanied the *Industrial Revolution* and the factory system. Institutions, then, are continuously changing and growing.

To illustrate the idea of institutions still further, take those of the United States at the present time for example. We are a highly industrialized nation. Certain institutions have developed and now form the whole structural background of our society. A few of these are: banks, investment houses, corporate organizations, and the wage system. In its day, slavery was an economic institution.

People living within a certain time are sometimes inclined to consider the institutions of that time as permanent, to idealize them and give no attention to the gradual changes that are going on from year to year. It is a characteristic of the mind of the scholar that he recognizes these almost imperceptible tendencies to change and grow that continuously mark our social life. Our discussions have given a cross section of the development of institutions in the United States during Colonial times and since we became an independent nation. It is impossible to grasp the meaning of our present institutions and the business world of today unless we have thus traced the beginnings and changes in our methods of life from the earliest times.

The Nazi and Fascist systems are presented, not because they necessarily represent any permanent trends, but because they exist as large-scale experiments attempting to change some of the situations that several generations of capitalism have developed. Neither one has been conducted for more than a generation, and the latter was born directly out of the conditions that existed at the close of

World War I; hence their present experimental nature must always be kept in mind.

The capitalistic countries and Soviet Russia lay emphasis on their adherence to democracy. They may fail at times to reach the ideals of democracy, but at least they hold the concept before their people as an ultimate end toward which they are striving, and the idea is firmly embedded in their constitutions.

It is quite otherwise with German Nazism and Italian Fascism. As already pointed out, they oppose anything approaching democracy and hold up the word "democratic" for reproach and ridicule.

While the capitalist countries have laid especial emphasis on political democracy, touching industrial democracy only occasionally and in some forms, the Soviets are attempting to arrive ultimately at both political and industrial democracy.

KEY POINTS IN UNIT 5

1. Economic systems determined by the type of controlling power.
2. Representative systems include: capitalistic system, Russian Soviet system, and Nazi-Fascist system.
3. All economic systems organized around three problems: (1) production of goods; (2) distribution of goods; (3) consumption of goods.
4. *Capitalistic system* characterized by free enterprise; privately owned property; profit is guiding principle:
   - *a*) Four factors of production: land, labor, capital, enterpriser; capital includes buildings and equipment.
   - *b*) Competition important factor in controlling production in free-enterprise system; no government regulation except to prevent violence or fraud.
   - *c*) Owners of industry receive profits of business.
   - *d*) Danger in capitalistic system: rapid growth of industry tends to promote monopoly.
   - *e*) Serious problems of capitalistic system: when monopolies develop, competition becomes ineffective or disappears; this may lead to government control through regulatory legislation.
5. *Russian Soviet system* outgrowth of revolution of 1917; federal state all-important factor; eleven republics make up state; all profits go to federal state:
   - *a*) All large-scale industries, land, and all transportation systems property of government.
   - *b*) Forty million workers in Russian industries; these do not include collective farms; two-thirds of all workers employed in industry

belong to unions; no strikes, since workers are state and employer is state.

c) In Russia, social economic planning of all industry; new experiments recommended by State Planning Commission; final plans submitted to government for adoption.

6. Economic conditions in China radically changed by war. Trend definitely away from laissez-faire attitude to increased government control of economic system.

7. German-Nazi system follows same lines as Italian-Fascist system; Italian system developed first; dominant thought of both systems is that, within the nation, individual interest shall not conflict with government interest:

a) Germany organized into *estates;* these include agriculture, trade, industries, handicrafts, and transportation.

b) These two systems aim to make country an *autarchy;* that is, self-sufficient within its boundaries; both systems tend to develop socialization of people.

c) Under Nazi-Fascist systems government expenditure cannot be reduced; only solution is socialization of private property.

QUIZ QUESTIONS ON CHAPTER I

1. *What is meant by an economic system?*
2. *Define the term* economic institution. *Give an example.*
3. *Name three different types of economic systems. Classify each as to time and place.*
4. *What determines the type of economic system of any country?*
5. *How does a dynamic society differ from a static society?*
6. *Under the Feudal System of England in the Middle Ages, who owned the land? Who worked the ground? How was the freedom of the workers limited?*
7. *How were towns organized under the Feudal System?*
8. *What important economic purpose did the merchant guilds and the craft guilds of England serve? What caused the decline of the guilds?*
9. *What economic conditions in England produced the Commercial Revolution?*
10. *Define* mercantilism. *Give the most important theories of the mercantilists.*
11. *What is meant by* laissez faire *in economics? Did Adam Smith believe in the theory of* laissez faire?
12. *Name five stages in the development of the economic system of the United States.*
13. *In what way was each stage a progressive step in our manner of living?*
14. *What natural resources tended to encourage the development of manufacturing industries in New England?*
15. *Why was agriculture more successful in New York than in the New England states during the period of Colonial America?*
16. *What agricultural product was most extensively grown in the Southern States before Eli Whitney invented the cotton gin?*
17. *What economic conditions produced the Industrial Revolution?*
18. *Is it correct to call the fifth stage of our economical development, the* Industrial Stage?

19. Name three economic systems prominent in the world during the present century.

20. Give prominent characteristics of each system.

21. What serious problems confront the capitalist?

22. Why is competition important in a capitalistic system?

23. Do workers in Russia strike under the present economic system?

24. What marked change has taken place in economic conditions in China since the beginning of the war?

25. In what way did the German-Nazi system follow the methods of the Italian-Fascists?

26. Define autarchy. *Do believers in the German-Italian systems want autarchy for their countries?*

Chapter II

WHAT IS ECONOMICS?

OBJECTIVE: Concept of economics as a social science.

PREVIEW: *Economics is a science. By science we mean knowledge acquired by a systematic arrangement of known facts. Gaining knowledge by the use of scientific methods involves making experiments, recording results, collecting and organizing the facts found. Economics, then, is a science because it is made up of knowledge that has been systematized and used to formulate general truths. We think of zoology as a physical science because it treats of animals, their organs, and the division of the animal kingdom into distinctive classes. We also think of chemistry as a physical science because it treats of the composition of substances, the various elementary forms of matter, and the changes they undergo. However, economics is a social rather than a physical science because it treats of certain activities of men and their institutions. In our discussion of economics as a social science we deal with the wants or desires of human beings, the processes of producing commodities and services to satisfy these desires, and the way in which goods are divided or distributed. The theories of the economist in his attempts to explain human behavior cannot be stated or proved as simply as a mathematical formula. We cannot take society as a whole into a laboratory for experimental study. We must take our social organizations such as the home, the schools, the industrial institutions, and other economic factors as they exist today or have existed in the past, and, by analyzing and recording known facts, seek to gain valuable information which may serve man in his economic struggle for survival. From data acquired we may arrive at certain definite conclusions that will enable us to trace, with some degree of accuracy, trends in an economic system. Chapter II deals with economics as a social science.*

Unit 1. Economics, a Social Science

A. Meaning of Science.
B. Why a Social Science?

C. Methods Used in Organizing Economics as a Science:
   1. Experimentation.
   2. The collection and organization of facts.
   3. The use of statistics.

D. Economic Laws or Principles.

A. Meaning of Science. To the majority of people *history*, as a word, has a pretty definite meaning. It is the *record of past events* brought about through the activities of men; it is a narrative of facts which are dealt with as steps in human progress. *Geography*, also, is a familiar word; it gives us information about the surface of the earth, the location of oceans and continents, of rivers and mountains. *Mathematics* deals with the combination and use of numbers. Few, if any, adult people exist who do not know something about the use of numbers in measuring size and distance.

The meaning of *economics* is not so clear to most people. First, we say it is a science, meaning that it is made up of certain facts that have been observed, compared, and classified. Then, general statements have been made about these facts. Before these general statements can be considered as laws or tendencies they must be submitted again to the most rigid observations, and further facts must be collected and tested to make sure they agree with the general statements. Economics is a science because it is made up of knowledge that has been systematized and used to formulate general truths. These may be considered truths for the present, but later observations may modify them. Also they may be true under certain circumstances and in certain places but not in others.

B. Why a Social Science? Economics is a social science. *Botany* deals with plants and all that has to do with their forms and distribution. *Zoology* treats of animals, their organs, and their divisions into great classes. *Physics* is a study of matter and energy. *Chemistry* treats of the composition of substances and the changes which they undergo. All of these are known as *physical sciences*. They all deal either with inanimate things or with life below the human level.

Economics is a *social science* because it treats of certain activities of man and of the institutions he has built up. Some of the economic institutions man has developed are: financial institutions such as

banks; marketing institutions like Boards of Trade and Stock Exchanges; private property, the institution that gives to an individual the control over certain objects; and the corporation, which is a form of business organization. An institution, as previously stated, is a social relationship or an arrangement which is organized to express a certain group activity.

C. Methods Used in Organizing Economics as a Science. Since economics is a science it must use the methods used by all the other sciences insofar as possible—that is, insofar as they can be applied—and, in addition, new methods may be necessary in the social sciences. In physics we may have great laboratories in which to carry on experiments. This is true also of chemistry. We can try these experiments over and over again to prove that we always get the same results.

1. Experimentation. This use of experiments is not so effective in economics. In chemistry when we weigh definite amounts of certain substances and heat them in a test tube, the results will always be the same. But if we attempt an experiment involving a certain number of human beings, we will never be quite sure that the results will be the same if we try it over again, as each human being is different and these differences will affect the results. Let us assume these are two state institutions used for the care of delinquent youth. Certain regulations prevail for conducting these institutions. A new suggestion is to be tried out in each of the institutions. But the results will not be the same, due to the differences in the personalities of the officials handling the institutions and the differences in the inmates themselves. Some such experiments have been carried on, but the results are seldom identical. At best, they show only similar tendencies or movements in a certain direction.

2. The Collection and Organization of Facts. Much has been said on the scientific method of thought. Some lay great emphasis on the collection of facts; others attempt to draw general conclusions before they gather many facts. The first process may be called *induction;* the second, *deduction.* Neither alone is adequate. There are scholars who have been led to think that there is an antagonism between the two processes. Now the conclusion is general that they are the two necessary phases of all scientific thinking.

This is the procedure: First, we may observe that certain events have occurred several times, such as depressions in business. We collect all the information possible about these events; in this part of our work we are using the inductive process. Now we attempt to arrange the facts and find a general statement that organizes all these facts; this is deduction, or establishing a principle or tendency. But it is necessary now to collect still further facts to prove our generalization, to establish it as nearly beyond a doubt as we are able. So we use the inductive and deductive processes alternately to arrive at scientific conclusions. This is the method that Charles Darwin used in 1837 when he went to South America to collect facts that became the basis of his theory of evolution.

3. The Use of Statistics. One of the means used in economics to secure and compare facts is the use of statistics. Statistics are classified facts which are collected and used when we wish to study masses of data that can be counted or measured and from which we may extract a few simple facts. For example, we might secure the heights of 1,000 students and find the average by dividing the sum of the heights by the number of students. We might find out how many potatoes were sold in New York City on a given day and the prices at which they were sold. The sum of the quantities multiplied by the prices and then divided by the total number of bushels of potatoes sold would give us the average price per bushel of potatoes.

By using Government reports and various other sources such as studies carried on by foundations—that is, endowed research bodies such as the Rockefeller Foundation—we can secure a large number of facts in the form of figures. These concern many important economic conditions such as the acreage of wheat planted, the number of automobiles manufactured, the spread of diseases, the movements of populations, and the production of coal and iron. By classifying these figures and comparing them, conclusions can be arrived at and tendencies indicated.

D. Economic Laws or Principles. Laws, tendencies, and principles have been mentioned. We all know that in physics we at least tentatively accept the law of gravitation, which deals with the force in nature that arises from the pull of the earth on bodies on or near its surface. But most physicists now know that their so-called laws

are not absolute and may be changed by further investigations. There are few statements that can be called laws in economics for we cannot experiment and control our experiments as can be done in the physical sciences. We can say that if such-and-such conditions exist there will probably be such-and-such a result. Economic principles, then, can hardly be called laws. No doubt as we are able to use statistics more, statistics itself being a young science, we shall be able to arrive nearer and nearer to an accurate interpretation of the facts in economics.

KEY POINTS IN UNIT I

1. Science, systematic arrangement of known facts.
2. Physical science treats of inanimate objects and life below human level.
3. Botany, physics, and zoology are physical sciences.
4. Economics, a social science dealing with activities of men and their institutions.
5. Scientific methods applied when collecting and organizing economic data.
6. Methods of reasoning used may be inductive or deductive.
7. In physical-science laboratories, experiments must be repeated again and again to prove results always the same.
8. When a chemist weighs a certain substance and heats it in a test tube, the results are always identical. In a social science, which deals with human beings, results of experimentation are seldom identical. For example, in two state penal institutions where personalities of officials differ as well as the personnel of the inmates, results of experiments may not be identical, but will show tendencies in a certain direction.
9. When collecting economic data, hundreds of identical or similar cases under the same or similar economic conditions must be observed and facts recorded.
10. Facts collected must be organized and systematized.
11. Economic data must be analyzed.
12. Statistics and other known facts are used to formulate economic principles or to show economic trends.
13. In physical sciences, laws can be formulated; example, law of gravitation.
14. Due to constantly changing economic conditions, economic principles can rarely be stated as laws.

Unit 2. Economics Defined—the Subject Matter of Economics

A. Definition of Economics.
B. Facts That Form the Subject Matter of Economics.
   1. Desires as Economic Facts.
   2. Productive Processes as Economic Facts.
   3. Field of Exchange as Economic Facts.
   4. Distribution of Income as Economic Facts.
   5. Historical Development of the Subject Matter of Economics.
   6. Pure Science or Applied Science.

A. Definition of Economics. So far we have spoken of economics as a social science and of the methods used in building it up into a science. But nothing has been said of the subject matter of economics except that it deals with certain activities and institutions of men. We must know the facts with which economics deals, and through study of these facts we will try to work out principles.

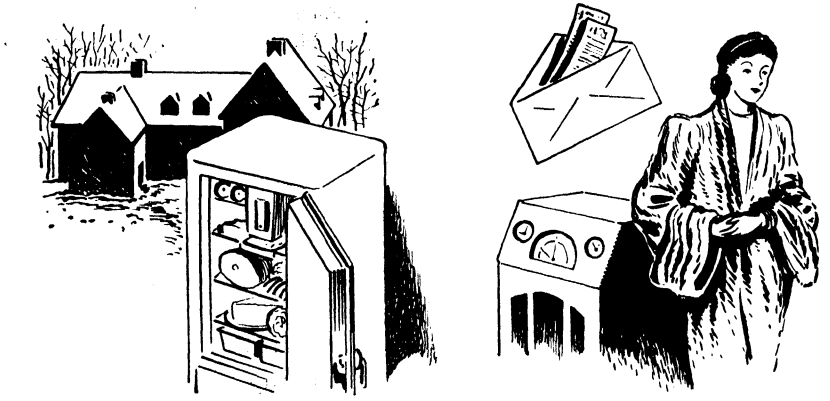
Economics is a social science that treats of the wants or desires of human beings, the processes of producing commodities and services to satisfy these desires, and the way in which these goods are divided or distributed among people.

There are economists who hold that economics deals only with the material welfare of man; that is, with such concrete objects as automobiles and furniture. They leave the impression that the products of the cultural, educational, and artistic activities have no place in the subject. If this position is taken, it is difficult to see how the vast amount of pottery, tapestries, and paintings, plus the achievements of instructors in schools and universities and of opera singers, who are all rendering services, are to be classified.

Some economists have used the expression "wealth-producing and wealth-using activities of man" in defining economics. Unfortunately, many using this definition have laid all the emphasis on the wealth-producing—on production, in other words—and little on the wealth-using angle, thereby slighting the satisfactions of

human wants. They hold that the satisfaction a person gets is difficult to measure. They point out that two people may pay the same price for seats at the opera, but one with a well-trained ear gets a much greater satisfaction than the other. They fall back on the argument that the amount a person will pay is about the best measure of the satisfaction he gets and is the only objective thing, or measure outside the consumer, while real satisfaction is subjective, or an effect within the consumer which cannot be really measured.

Other economists lay their chief emphasis on the subject of price and profit, approaching the subject from the point of view of



Secondary Desires, or Wants

the business man. This side of the subject should be understood, but laying all stress on this leaves the human satisfactions, for which the whole economic process is carried on, almost entirely neglected.

In this text, particular attention is paid to the ways in which and the extent to which human wants are satisfied, not overlooking the so-called *ultimate satisfaction* of the consumer; at the same time a study is made of production and exchange and distribution, which are all necessary processes, if goods are to be created to satisfy human wants.✓

B. Facts that Form the Subject Matter of Economics. There are certain fundamental desires or needs that every human being has, such as food, shelter, and clothing, and these are necessary from earliest childhood. Food and shelter are needs common to

animals as well as man. Then there are various other desires or wants, depending on the stage of civilization of the people under discussion, their education, and the amount of their income. A need may be defined as something that is essential to make a person efficient. Food and shelter are absolutely necessary, and while the food and shelter desired or needed may differ in quality and quantity, these needs cannot be neglected for long.

1. Desires as Economic Facts. There is, however, a great difference between these primary desires, or needs, and the secondary desires, or wants. Wants may be for such things as objects of art, pottery and paintings, decorative house furnishings, or ornamental clothing. These things are not absolutely essential to the efficiency of an individual, as needs are, but such articles as are produced to meet the desires, in the form of wants, of a large number of people. When people are engaged in using goods to satisfy their desires we say they are *consuming goods*, and the process is called *consumption.* (Consumption is discussed in another chapter.)

2. Productive Processes as Economic Facts. In order to satisfy desires, goods must be created or produced. A man living on a South Sea Island near the Equator does not have many desires. Food and some shelter he needs, but he does not have to exert himself greatly to secure either of these. Nature may provide bananas, berries, and nuts; a crude palm-leaf shelter may be all the protection he requires. In the complex society of today, most of the population is engaged in making goods to satisfy the multitude of desires of other people, either in their own country (through domestic trade) or in foreign lands. So another great division in economics, that is to say another great group of facts, is the study of the whole complicated process of production, or the making of completed goods from raw materials.

3. Field of Exchange as Economic Facts. After goods have been produced they must be exchanged in the market. Here prices are established; buyers and sellers make exchanges of goods. It will be an exchange of commodities or services for money if they are sellers,

and of money for goods if they are buyers. So, under the head of *Exchange*, come discussions of the different kinds of markets, the use of money and the banking institutions, and foreign trade and the tariff. Here again is a group of complex facts to be studied and organized.

4. Distribution of Income as Economic Facts. The word *distribution* in economics does not, in its important sense, mean moving goods from one place to another, but it does mean the division or distribution of all that has been produced by the factors of production among the *factors of production.* By *factors of production* we mean those great functional groups that have had a part in creating goods, such as labor,

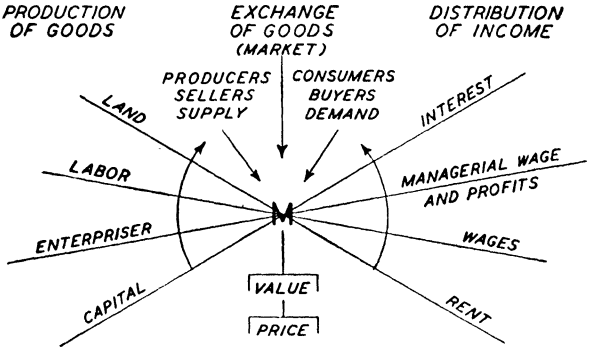


Fig. 1. Diagram of Economic Processes

land, and capital. How much, for example, of all that has been produced in a year, has gone to pay the wages of labor, how much to pay the interest on capital, and how much for the rent of land?

Fig. 1 represents the subject matter of economics. The left-hand side of the figure represents the process of *production*, in which *land*, *labor*, the *enterpriser*, and *capital* are all engaged in producing *goods*. Assume this represents the *production* of wheat. The wheat is produced to send to the market, represented by *M*. The arrow on the left shows that all those engaged in growing wheat are producers, are sellers, and represent the supply side of the market.

But a market is not complete unless there are buyers present. So the *arrow* pointing downward shows that into the market come consumers who want goods. They are buyers and constitute the demand side of the market for wheat. It is here in the market that

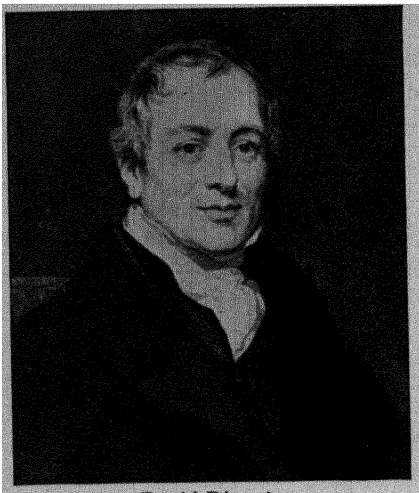
value is established and *prices* are set. The right-hand side of the drawing represents *distribution.* If the line indicating land is followed through, it is labeled *rent*, or the return that *land* receives for its services. In the same way follow each line through to the distribution side which shows the share each of the factors of production receives.

5. Historical Development of the Subject Matter of Economics. Different writers on economics have laid special emphasis at different times on various parts of the subject matter of economics. For example, Adam Smith, sometimes called the *Father of Political Economy*, writing in 1776, laid most of his emphasis on the production of goods or the *Wealth of Nations* as he chose to call it. David Ricardo, writing in 1817, laid most stress on what we call *distribution*, with wages and rent receiving most of his attention. John Stuart Mill, writing in 1848, gave a good deal of attention to *exchange.* All of these writers laid emphasis on the cost of production of goods; that is, they gave their attention to the supply side of goods. Smith, Ricardo, and Mill may all be regarded as so-called *Classical Economists.* They were all of the laissez-faire group.

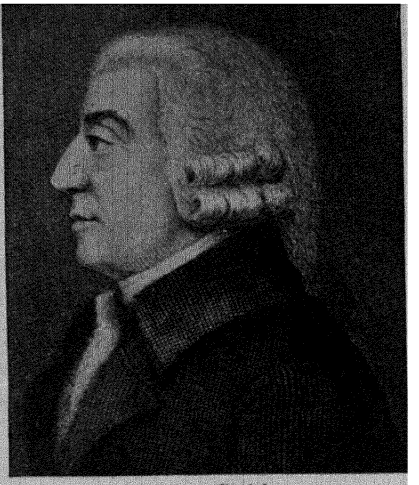
In 1871, W. S. Jevons introduced the subject of measuring of the desires of consumers. He tried to establish a way by which to tell how much utility certain goods had for the person who used them. This shifted attention over to the demand side of the market and began a new approach to the study of prices.

This point of view was further strengthened by Francis Amasa Walker, an American economist, who in 1887 insisted that *consumption* was an important part of economics, thus another important division was added to the subject matter of economics. Before leaving this brief historical sketch one more writer, Alfred Marshall, should be mentioned. He took the cost-of-production angle of the Classical writers and combined it with Jevons' utility theory and thus united supply and demand in the determining of price. Marshall is sometimes called *neoclassical*, or a *marginal-productivity theorist*, and his followers, of whom there are many, are called *Marshallians.*

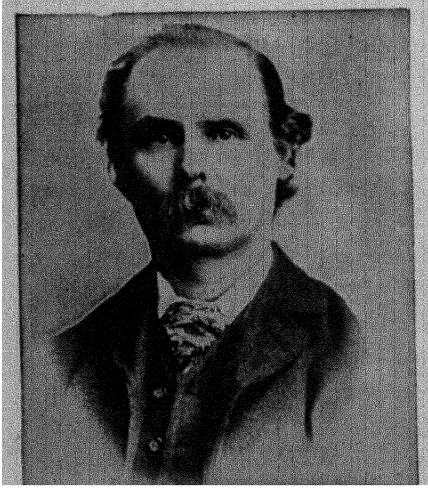
6. Pure Science or Applied Science. Before leaving the subject matter of economics and the methods that are used, it will be well to decide



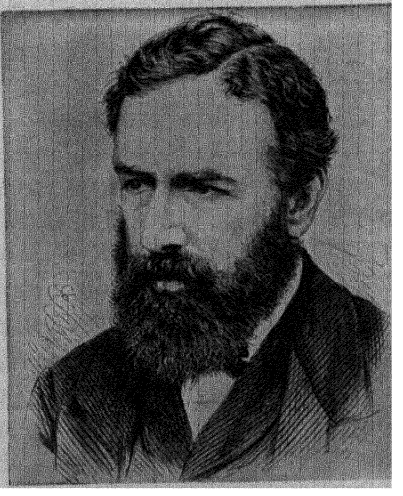
David Ricardo



Adam Smith



Alfred Marshall



William Stanley Jevons

whether it is a *pure science* or an *applied science* or both. It is best to consider it as both. Pure science deals with theory, principles, laws; the aim of a pure science is the pursuit of knowledge. Some scientists remain in their laboratories, being interested only in discovering new principles. But if the aim of our study of economics is to find out how to increase human welfare, then it is necessary that the

tendencies or principles discovered in our studies be applied to social conditions that may seem to need improvement. The use of the airplane could never have been accomplished if in the pure science of physics certain principles had not been discovered. The application of these principles has enabled men to travel around the world in the heights of the stratosphere; this is applied science.

KEY POINTS IN UNIT 2

1. Economics, a social science, defined.
2. Subject matter of economics involves human desires and processes for satisfying them.
3. *Primary desires:* fundamental needs of food, shelter, and clothing necessary for sustaining life.
4. Primary desires of men living in South Sea Islands easily satisfied; nature provides food of fruits and nuts; little shelter and scant clothing needed.
5. South Sea man, decorating body by tattooing or wearing metal earrings and bracelets, reveals *secondary desires* not essential to existence.
6. Secondary desires increase with progress of civilization, including more elaborate ornamental clothing, house decorations, objects of art, pottery, paintings, and other commodities not necessary for existence.
7. Satisfying desires results in *consumption* of goods—economic fact.
8. Consumption of goods creates demand for *production* of goods—economic fact.
9. Desires for great variety of goods result in *exchange* of goods—economic fact.
10. Markets established for exchange of goods; prices set; *money*, medium of exchange.
11. Expanding trade; demand for *economic institutions*—banks.
12. Closely connected with consumption and production of goods as an economic fact is *distribution.*
13. *Distribution* in economic sense does not mean moving of goods from one place to another, but means the distribution (division) of all products (wealth and services) among the factors of production (land, labor, and capital); that is, the division of net products of industry among rent, wages, and interest.
14. Present-day society divided into three large groups according to their average weekly income; salary of the highest third several times the salary of the lowest third.
15. Classical economists of the laissez faire group, represented by Adam Smith, David Ricardo, and John Stuart Mill, stressed *production, distribution,* and *exchange* as dominant economic facts.

16. Neoclassical group, represented by Alfred Marshall and known as Marshallians, united *supply* and *demand* in determining price.
17. Economics, both applied and pure science.

Unit 3. The Relation of Economics to Other Subjects

A. Relation to Mathematics.
B. Must Use Psychology.
C. Technological Processes.
D. Place for Ethics in Economics.
E. History Related to Economics.

A. Relation to Mathematics. There is too much of a tendency in these days to study one field of knowledge and to give no attention to other fields. When we stop to think of it, life is not divided into separate compartments, and neither is knowledge. Every subject is closely related to every other subject. Take mathematics or, more specifically, arithmetic: statistics is an important method for securing and handling facts in economics. Statistics rests on mathematics, and our ability to arrive at conclusions in economics rests to a large extent on the use of numbers. The student, then, will attempt to develop his thought wherever possible in terms of numbers. This will lead to greater accuracy in thinking.

B. Must Use Psychology. Another point not to be overlooked is the relationship of economics to psychology, which is a study of mental processes. We recognize in economics that human beings have desires and that they wish to satisfy their desires. The choices that they make in satisfying their desires are mental processes. There are great differences between individuals both as to the types of desires they hold and as to the way they choose to meet these desires. One individual wishes an automobile and fancy clothes; another cares more for books and good pictures. In our study of economics much attention is given to the things people buy to consume, and the study of mental processes and human behavior.

C. Technological Processes. *Technology* is the science or systematic knowledge of the industrial arts, especially of the more important manufactures such as spinning, weaving, and metallurgy. These technological processes, then, are other facts that economists must take into consideration, not so much when dealing with pure theory but rather when dealing with the application of theory to actual conditions. Technological changes are great in number in the United States, as shown by the patents secured for changing and improving machinery.

The predominant number of patents for inventions are found in the fields of transportation, communication, power, the chemical industries, the electrical-goods industries, metallurgy, agriculture, and the mineral industries. Technological changes may result in the complete elimination of occupations or even entire industries. In other cases, completely new industries are created by inventions and applied science. Examples of this are radio and television, both of recent origin. All this means that economics is in closest relationship to that whole field known as *technology*, which is interested in reducing the scarcity of goods.

D. Place for Ethics in Economics. There are economists who hold that economics has nothing to do with questions of right or wrong, of good or bad, or what will be the result of a certain line of action. Others claim that in applying economic principles it is necessary to consider whether the consequence will better the welfare of society. Of course the first point of view is that of the pure scientist; the other, the attitude of the one who is more interested in the application of pure science. There is a place for each, but applied science cannot go far without pure science, and pure science can have little effect on society unless it is applied.

E. History Related to Economics. Finally, what relation has economics to history, especially the history of institutions? As mentioned previously, it is necessary to know something of such history, for, to understand the economic institutions of today, we must know the steps by which each progressed: how labor has developed from slave labor, to the serf, to wage labor; how industry has grown from small individual production to the great corporation that characterizes large-scale industry; how markets that were cities where traders

brought their wares to exchange (sometimes not using money, but bartering) developed into the great world markets that characterize the whole process of exchange today. We must be able to trace the growth of our transportation systems and our other public utilities, the building up of a protective tariff system, and the establishment of our public land policy. Study of the development of these institutions and many others has made it necessary to write economic histories of our own and other countries.

KEY POINTS IN UNIT 3

1. Knowledge is not confined in pigeonholes; every subject is related to other subjects.
2. Economics related to many subjects: mathematics, psychology, technology, ethics, history.
3. Economics deals extensively with statistics based upon *mathematics*, science of quantities or numbers.
4. Ability to arrive at conclusions in economics depends largely upon student's ability to use numbers accurately; student should attempt to develop his economic thought in terms of numbers whenever possible.
5. Economics deals with human desires—mental processes; closely related to *psychology*, which also deals with mental processes.
6. Economics treats of various industrial arts dealing with reduction of scarcity; important factor of *technology* is reduction of scarcity; in United States, patents show increase in new inventions for improving machinery.
7. Some economists deny that *ethics* has anything to do with this subject; these are the pure scientists who work only in laboratories; applied scientists maintain economics deals with welfare of society and cannot, therefore, be separated from ethics.
8. Economics related to *history;* record of progress; slave labor replaced by semifree serf; serfs, by individual energy, became wage earners.
9. Present-day corporations outgrowth of small privately owned industries; markets developed from trading posts where traders took their goods for barter; export trade developed trade exchanges and banks; transportation systems, protective tariff, public-land policy, public utilities, all outgrowth of small beginnings.

Unit 4. Fundamental Concepts Used in Economics

A. Economic Goods.
B. Wealth.
C. Utility:
   1. Form.
   2. Time and Place.
   3. Ownership and Possession.
D. Property.
E. Value and Price.
F. The Factors of Production:
   1. Land.
   2. Labor.
   3. Capital.
   4. Enterpriser or Entrepreneur.
G. Income.

When beginning the study of a science we encounter many new words which must be understood or we cannot get far in the science. In arithmetic we learned that *addition* is the process of combining one number with others to find their sum, that *division* is finding how many times one number is contained in another; in geography a *mountain* is a considerable height or peak of land, a *river* is a stream flowing through the land; chemistry used such words as *atoms* and *molecules;* physics discussed *inertia.* All of these and more we learned in order to understand a new science. So in economics there are special terms that must be understood, and it is best to have them in mind from the beginning because they are the instruments of thought we must use in order to master economics.

A. Economic Goods. First, the word *goods* means anything that satisfies a desire. Goods may be either *economic* goods or *free goods. Free goods* are those which exist in such a quantity that they can satisfy all wants. The air is usually considered a free good, but if a house is air conditioned and a considerable cost to maintain temperature and moisture is involved, the air in such a house is not a free good. Goods that do not exist in such quantities as to meet the

gh-School Building May Be Considered an Item blic Wealth

Underwood & Underwood

desires of all those who wish these goods are termed *economic goods.* They are scarce and must be paid for. Economics will have little to say of free goods; it deals only with economic goods. Some goods are not paid for directly by those who use them, but are paid for by taxation. Such goods are called *public goods* and are represented by public libraries and public schools.

Not all goods have a material form as do shoes, hats, and houses; many goods are immaterial and consist of services. The service which a physician renders to his patient is a good, since it satisfies the desire to be free from pain. An opera singer renders a service to an audience by providing a pleasing sound which is an *immaterial good;* and like material goods, such services are paid for. Further, just as material economic goods are transferred to another, services or immaterial goods are transferred; for example, from a pianist to his audience.

B. Wealth. Another term for discussion is *wealth.* It may be defined as a stock of economic goods, existing at an instant of time, that is material, is external to the owner, is scarce, and has qualities that will satisfy a desire. (Later we shall call this ability to satisfy a desire *utility.*) The word wealth does not, then, include services which are immaterial. Some wealth may be spoken of as *public wealth,* and would include such items as our public school buildings, Government buildings, and great public dams. The term *private wealth* would be applied to material things controlled by individuals, as, dwelling houses, pianos, automobiles, and fountain pens. These might also be called *individual wealth.*

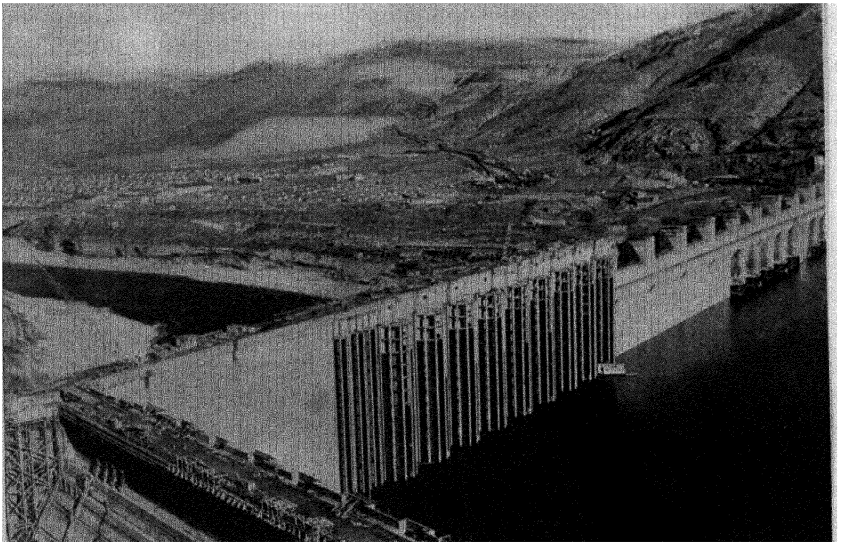
C. Utility. The term *utility* means the ability or power that a particular good has to satisfy a desire. A good may have the power to satisfy the desire of one person but not of another. A beautiful

painting will satisfy no desire of a blind person, while it gives great satisfaction to the person who can see it. A fur coat would have no utility to the person living at the Equator, while it would have great utility for the inhabitant of the Arctic regions, satisfying his desire for warmth.

Again, the same article may satisfy many kinds of desire. Take an automobile: a working man may use it to get to his work in the morning; a mother may use it to take her small children to school; a family may use it as a means of taking a vacation trip; a doctor may use it to hasten to the scene of an accident. While these persons all accomplished different things, in each case it was the utility of the car that was made use of to get from one place to another.

1. Form Utility. There are several types of utility. First is *form utility.* To illustrate: a sheep farmer has raised sheep, and has sheared them, the wool is in great bundles, but it is not in a form that can be used for wearing purposes. Next it must be sent to the factory, washed, spun, woven, and dyed. Still it would not be ready to wear. The cloth must go to a tailor and be cut and sewed into a suit of clothes. Then the wool would have a form utility that makes it possible for the wearer to start consuming it as he begins to wear his suit of clothes.

Grand Coulee Dam, Washington *Underwood & Unde*



The changing of wheat into cake is another example of creating form utility. No consumer wishes to use raw wheat. So wheat must pass through the processes of cleansing, grinding, and baking before it has the proper form to satisfy the desire for cake.

2. Time and Place Utility. A housewife who is accustomed to buying bread for her family may telephone to her grocer to send a loaf of bread on the eleven o'clock delivery. She wants the bread for her noon meal. This delivery would give the bread a *time and place utility* since it is delivered for use at a certain time and at a certain place. Another example of place utility: oranges harvested in California can do the resident of New York no good until the fruit is brought across the continent.

Ownership Utility

3. Ownership or Possession Utility. There is still another type of utility. In a show window are many clocks. The clocks are all finished and ready to keep time, but the shopkeeper does not need them for use in telling time; they are his stock in trade. A purchaser comes in who must have a clock to indicate the time when he must go to work. It has a use for him, a *utility*, but first it must become his property. This is called an *ownership or possession utility.*

To summarize: in order to satisfy desires, goods must have form, time and place and possession utility; in other words, a good must be in the form necessary for use, at the time and in the place required, and in the possession of the person who wishes to use it.

D. Property. A term much used in economics is *property.* It is the legal right to use wealth. We have no right to use or give away that which is not our own. If the wealth consists of a house and land, the usual document that shows to whom it belongs is a *deed.*

A property right shows the relation of a man to a thing, it represents his ownership of the thing. All property rights are based on wealth. Assume you own a share of stock in a railroad. The wealth on which this share of stock is based is the railroad, and your right of ownership is shown by your *stock certificate.*

Why does an individual desire wealth? In order that he may

have the right to use that wealth and secure benefits from it. If he owns a piano, he may use it for practice or for teaching pupils. If a house belongs to him, he may use it by living in it himself or he may rent it and secure the benefit of the rent that comes from his tenant. In buying property we are always thinking of use or the benefits we will get from it in the future.

E. Value and Price. *Value* is one of the terms most frequently used in economics. *Value* means power in exchange, or the power that one good has which can be used in exchange for another good. Suppose I have a cow and a neighbor has sheep, and we are willing to exchange my cow for four sheep. It can be said that the value of the cow is four sheep. Exchanges take place in the market. It is when an exchange is made that value is established.

Value depends on the scarcity of a good and on its utility. In most markets the value of goods is expressed in terms of money and is called *price. Price*, then, is value expressed in terms of money. When a certain kind of good is scarce but is wanted very much, we say its utility is great, and the price of the good will be high. As a people, we eat white bread. If a drought should destroy most of our wheat crop, and if our people would not eat rye or cornbread, the price of wheat would be high.

F. The Factors of Production. There are four terms that belong together and that enter early into any discussion in economics. They are called the *factors of production:* land, labor, capital, and enterpriser.

1. Land. Under the head of *land* we include all natural resources. This means the surface of the earth which provides us with location and fertility; it includes also all the minerals under the surface, the water power, and the climate that prevails over the surface. Land is considered one of the two principal factors of production, for it is impossible to think of anything being done that does not require land.

2. Labor. The second principal factor of production is *labor;* for without human labor no production could be carried on. *Labor* can be defined as any human effort either manual or mental that is required in the process of production.

3. Capital. The third factor of production is *capital.* It consists of material objects that have been produced by human effort and that

are used to assist in further production. It is a stock of wealth existing at a given instant of time. The machinery in a factory is capital; it is material. It has been produced by human effort and is used for further production; it is then *capital goods*. When we measure capital goods in terms of money (as, for example, we may say a certain machine is worth $10,000) we are speaking of *capital value*.

4. Enterpriser or Entrepreneur. Some economists speak of a fourth factor of production, the *enterpriser* or *entrepreneur*. The last word, derived from the French, means one who undertakes to carry on a business, and this is also a definition of the word *enterpriser*. He is the one who recognizes that a desire exists for some object, that people want it, and he organizes the business to produce the good, bringing together the land, labor, and capital necessary to production. He then sees that these are so managed that goods are produced.

There are other economists who hold that this is only a different form of labor and that it should come under the head of *labor*, the return for such labor being called an *entrepreneurial wage* or the *wages of management*.

The largest group of entrepreneurs in the United States are the farmers, including both owners who work their own farms and tenants who rent and work the farms of others. An enterpriser is assumed to work for himself.

G. Income. Another term that should be defined with a good deal of care is *income*, as it plays a large part in economic discussion. *Income* is a flow of economic goods through a period of time, and is due to the right to use wealth. *Income* should be carefully distinguished from *wealth*. *Wealth* is a stock of material economic goods at an instant of time, while *income* is the flow of economic goods over a period of time.

Suppose you own a house. This house represents a stock of economic goods at a given time (wealth). If you live in the house, the benefit you receive is income. Again, suppose the house is rented and the tenant pays $75 per month. This $75 is income. It comes to you only with the passage of time and because you possess wealth in the form of the house. Or, assume that you own stock in a bus line and the company pays you dividends; that is *income*.

Another illustration: you have purchased a ticket which gives

you the right to ride 100 miles on a bus. This ride is a service, or income, that you receive in exchange for the purchase price of the ticket. Therefore, while wealth is material goods, income includes benefits, services, or immaterial goods.

There are different kinds of income to distinguish. First is *social income*, sometimes called the *national income* or *social dividend.* This consists of all the economic goods, both material and immaterial, that are produced within a given time, say a year.

In a given business, the *gross income* would consist of all the receipts derived from the business, while the *net income* would be the amount of gross receipts that remain after all expenses have been paid.

KEY POINTS IN UNIT 4

1. Study of any science requires learning new words; these are necessary in order to understand the fundamental concepts of the subject.
2. In arithmetic we learn about operations of addition, multiplication, and division of numbers; in chemistry, about atoms and molecules. In economics we learn certain new words: examples, *economic goods*, *wealth*, *utility*, *property*, *value* and *price*, *factors of production*, and *income.*
3. Not all economic goods have material form, as shoes, hats, and houses have. Some economic goods consist of services, as physician's service; opera star's service in musical production.
4. *Wealth* includes any stock of economic goods, not money only.
5. *Utility* is ability of goods to satisfy desires. Several types of utility are: form utility, time and place utility, and ownership utility.
6. *Property* is legal right to use wealth.
7. *Value* depends upon scarcity and utility of goods; *value* means the power that one good has to exchange for another; *price* is value expressed in terms of money.
8. *Factors of production:* land, labor, capital, and enterpriser.
9. Income plays important role in any economic discussion; without income there can be no economic activity, since desires for goods cannot be satisfied. *Income* is a flow of economic goods through a period of time.

QUIZ QUESTIONS FOR CHAPTER II

1. *Define the word* science.
2. *What is the meaning of* social science?
3. *Is economics a physical or social science?*
4. *Why is it difficult to make experiments in a social science?*
5. *Name three steps in scientific procedure.*
6. *Why are statistics especially valuable in a study of economics?*

7. *Is there any real distinction between a law and a principle?*
8. *Define* economics?
9. *What is the most important factor in the subject matter of economics?*
10. *Why are markets and exchanges included in the subject matter of economics?*
11. *Distinguish between* pure *and* applied *science.*
12. *What is the relation between economics and mathematics?*
13. *Why does a knowledge of psychology help the student of economics?*
14. *In what way is technology related to economics?*
15. *Is there any place for ethics in an economic discussion?*
16. *Does a knowledge of history contribute to a better understanding of economics?*
17. *Does every science have its own fundamental concepts? Give examples to make this clear.*
18. *What is meant by* economic goods? *In what way is wealth a concept in economics? Does wealth consist of money alone?*
19. *What is the meaning of* utility? *Name and explain four types of utilities important in the study of economics.*
20. *Define* property.
21. *Distinguish between value and price. Upon what two important factors does value depend?*
22. *Name and define four factors of production.*
23. *Is income always salary or wages?*
24. *Why is income an important factor in a discussion of economics?*
25. *Give examples of various kinds of income.*

Chapter III

THE CONSUMER—HIS DESIRES AND HIS ABILITY TO PAY

OBJECTIVE: Consumer desires, the basis of economic activity.

PREVIEW: *Throughout his life, every human being is engaged in consuming goods to satisfy his desires. Therefore, it seems logical that our discussion of economics begins with the subject of consumption, rather than with production. Consumption is the process of using consumption goods, that is, goods ready for direct consumption; or we might say, consumption is the using up of utilities. It is the demand for consumption goods that starts industry to producing. Consumers are the ones who decide what is to be produced and their demands determine ultimately how much is to be produced to satisfy their wants. Not only is consumption the incentive behind all production, but the satisfaction of desires is the end of the whole economic process. Economics, then, is largely devoted to a study of the means by which desires are satisfied. Consumption, as discussed in this text, refers only to goods used for ultimate consumption; in other words, goods that satisfy either primary or secondary desires. The consumers' first desires are for food, shelter, and clothing. These are known as primary desires because they are necessary to existence. The secondary desires include ornamental clothing, household decorations, and other items not essential to existence. In all families below the $20,000 income level, food is the largest item of expense. In families of the lowest income group, below the $500 income level, food takes two-thirds of the average income. According to Engel's law, if the income of a family decreases, the percentage spent for food increases, while the percentage spent for health, education, and recreation decreases. A discussion of economics must take into consideration the standard of living, which is made up of values; in other words, the way in which people live, the goal toward which they are striving. If there were no wants there would be no demand for consumption goods, and consequently no economic activity. As the standards of living rise, the demand for consumption goods increases. This chapter deals with various human desires and the demands, for consumption goods, created by these desires.*

Unit 1. The Place of the Consumer in Economics

A. Consumption Defined.
B. Consumption Illustrated.
C. Why We Begin Our Study with Consumption.
D. Relation of Consumers' Goods to Producers' Goods.

A. Consumption Defined. First let us define *consumption.* When goods that have been given *form*, *time*, *place*, and *ownership* utility are in the hands of those who wish to use them to satisfy their wants, we can say these are *consumption goods* and the process of using them is *consumption.*

For example, distinguish between raw cotton and a girl's cotton formal dress. When raw cotton is in the hands of a cotton-mill owner who produces cotton cloth, the cotton is *producers' goods;* that is, it must have utilities added to it before it can be consumed. Only by passing through several processes such as spinning, weaving, and dyeing can the cotton be converted into consumers' goods in the form of cotton goods suitable for a girl's dress. Making the dress adds another utility to the cotton.

Consumption, then, means the using up of the utilities or satisfactions that have been embodied in a good. When the girl begins to wear the cotton dress, she begins to destroy its utilities. They are then satisfying her wants and she is engaged in consumption.

B. Consumption Illustrated. Every living thing, whether plant or animal, must consume substances from the beginning to the end of its life. In order to live, plants must have carbon dioxide. This they can obtain from the air, where it exists in about three parts to 10,000 parts of air. Plants must also have water to consume, and, as water carries a number of things like sulphur, iron, and potassium in solution, the plants are provided with these much needed substances.

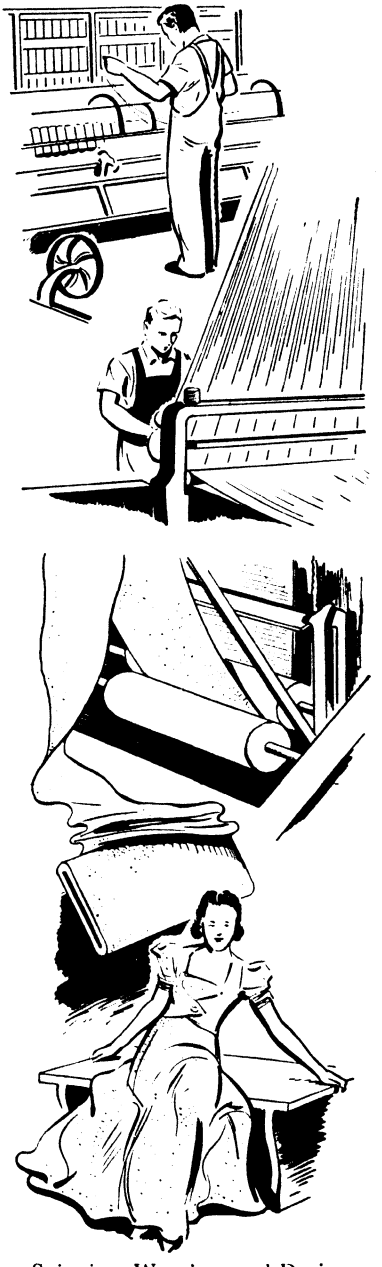
Plants then, to grow and multiply, must consume various substances from the air and soil. In the wild jungle and forest these things come directly from nature; in a cultivated garden, artificial

fertilizers and water are frequently needed by plants and must be provided by a gardener. In the jungle whatever the plants need are free gifts of nature, but on a cultivated farm some parts of the food for plants must be obtained at a cost and thus are not free goods.

In the same way, the wild animal (if it is a carnivora or flesh-eating animal) preys on smaller animals, or it feeds on roots, fruits, and twigs if it is a herbivorous animal. It, too, is a consumer and depends on nature for both food and shelter. Domestic animals are fed and sheltered, sometimes at a considerable cost, so that maintaining them is a problem in economics.

In the case of human beings, throughout their lives they are consumers. Depending on their age and culture, every year they live they are consumers of a greater or less amount of goods. It is this desire for goods that starts production. It is hard to imagine an industry organized to produce something that no one wishes. The articles that the pioneer who settled this country wanted were few. He would have been amazed by the number of things his descendant desires.

Today everyone is making choices, beginning at early childhood, of things he wants to possess. The child goes to the candy store



Spinning, Weaving, and Dyeing Cotton for a Dress

and spends some time deciding between different kinds of candy bars; or at the toy shop he weighs the relative attractiveness of a train of cars or a wheelbarrow. The youth in high school is trying to decide whether to buy a new tie or a pair of slacks. The young woman in college is undecided between a new hat and a pair of slippers. Mothers are always trying to make choices as to the best kinds of food or the most useful and attractive forms of clothing. All are making decisions as to goods to be consumed.

C. Why We Begin Our Study with Consumption. Because every human being throughout his life is engaged in consuming goods to satisfy his desires, the subject of *consumption* seems the one with which to begin our discussion of economics, which is largely devoted to a study of the means by which desires are satisfied. It is the demand for these consumers' goods that starts industry to producing. Not only is consumption the motive force behind all production, but the satisfaction of desires is the ultimate end of the whole economic process.

Not many economists write on the subject of consumption. It is difficult to get any concrete facts about it and only recently have studies been made that can be used as the basis for the discussion of consumption. With the production of goods the matter is entirely different, because goods can be measured and numbered. Practically all productive enterprisers keep careful statistics on how much they produce and the cost. By contrast, the consumption of goods depends largely on the choices made by a vast number of people who are influenced in making their decisions by a great number of motives or desires.

Let us make clear the importance of beginning the study of economics with *consumption* instead of with *production.* The consumers decide what is to be produced; the consumers decide ultimately how much should be produced if their wants are to be satisfied and if no stock of goods is to be left unused.

D. Relation of Consumers' Goods to Producers' Goods. The consumer wishes what are known as *consumers' goods;* that is, goods ready to use. For example, he is not interested in a bale of cotton, but he is interested in a cotton shirt made from this bale of cotton. The number of shirts used by men in the United States during

a year will give a good idea of how many bales of cotton have been spun and woven into shirting to make these shirts. Further, the number of bales of cotton used will give a clear estimate of how many spinning and weaving machines are necessary to produce this quantity of shirting. Machines and raw material, like baled cotton, are called *producers' goods;* and it is now clear to us that the demand for consumers' goods has a great deal to do with the demand for producers' goods. It is evident that manufacturers will not buy new machinery and expand their plants, or put in a stock of raw cotton for the output of shirting, unless there is good evidence that the product will be wanted by consumers.

KEY POINTS IN UNIT 1

1. Every living thing, whether plant or animal, is a consumer.
2. Plants consume food directly from air or soil.
3. Animals consume raw materials such as plants or other animals.
4. For human consumption, raw materials must sometimes be changed into forms ready for direct use; that is, *consumption goods.*
5. Raw cotton is not a consumption good, but girls' dresses made from cotton and ready for immediate use are *consumption goods.*
6. Desires of consumers differ: college girls may want new hats and slippers; their brothers in high school may want new neckties or slide rules; their mothers may want food for family consumption.
7. Consumers' desires create demands for production of *consumption goods.*
8. All economic activity depends upon consumers' desires.
9. *Consumption* is the process of using *consumption goods,* or using up utilities.
10. A study of economics should begin with *consumption* rather than *production.*

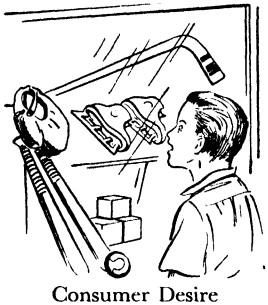
Unit 2. Types of Consumers' Desires

A. Desires Classified:
   1. Food—Engel's Law.
   2. Housing.
   3. Household Operation.
   4. Clothing.
   5. Automobiles.
   6. Medical Care.
   7. Recreation.
   8. Furnishings.
   9. Personal Care.
   10. Reading.
   11. Education.

B. Importance of Analysis of Consumption.

C. Spending and Saving.

A. Desires Classified. The first problem that must be considered under the head of *consumption* is to find out, as accurately as possible, the consumption needs of the American people. Recently, a great deal of valuable study of this subject has been made both by the National Resources Committee[1] and the Brookings Institution. In both of these organizations, the studies made deal with facts, many of them in statistical form. Listed according to their rank in amount of expenditures, thirteen categories under which types of consumption have been classified are: food, housing, household operation, clothing, automobiles, medical care, recreation, furnishings, personal care, tobacco, transportation (other than automobiles), reading, and education.



Consumer Desire

In this discussion only eleven of these categories are considered. The estimates are made on statistics compiled for the year 1935–1936.

[1]*Consumer Expenditures in the United States*, National Resources Committee, Washington, D.C., 1939.

Consumption, as discussed here, refers only to goods used for ultimate consumption, in other words that directly satisfy wants, or desires. Goods used in intermediate consumption (for example, raw materials in industry) are not included. Examples of goods used in intermediate consumption are: lumber in a furniture factory, raw wool in a factory that makes woolen bed blankets, and the steel that goes into stainless steel knives. This discussion includes the furni-

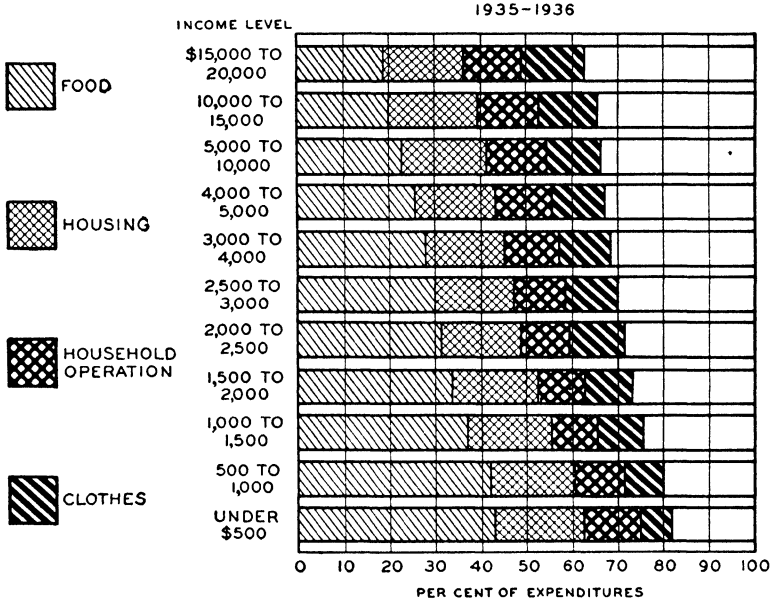


Chart I. Percentage of Expenditures by American Families at Different Income Levels for the Fiscal Year 1935–1936

Adapted from *Consumer Expenditures in the United States*, National Resources Committee, 1939, Chart 7, page 23.

ture, the blankets, and the knives as consumers' goods, but not the lumber, wool, or steel; these last are being used in the process of intermediate consumption only. It has been pointed out that ultimate consumption goods, and the demand for them, determine the quantity of intermediate consumption goods.

An examination of Chart I, which shows family expenditures for the year 1935–1936, will help in studying American consumption. The family is used as the unit because most American consumers are members of families. In the year being considered (1935–1936), there

were about 29,400,000 such families, and they composed 91 per cent of the entire population. The chart, then, presents a consumption pattern for American families. There are similarities in the spendings of families in the same economic groups (grouped according to income) and Chart I was drawn after a study had been made of the expenditures—budgets—of a large number of families. Note that it shows *percentages* of expenditures for the four most important consumption items at the various income levels. Looking at Chart I we can draw some general conclusions as to consumption.

1. Food. Engel's Law. Food is the largest single item of expense at all income levels below $20,000. In the lowest income class, that under $500, food takes two-thirds—about 65 per cent—of the average income. It accounts for a somewhat smaller proportion of expenditure—44 per cent—shown in Chart I, since purchasing power at this income level is augmented by past savings and by borrowing. As the income scale rises, food receives a gradually decreasing share of income and of expenditure. This food item declines more rapidly in relative importance, as the income advances, than any other of the categories of consumption. There is a well-known statement, formulated about 1850, to the effect that if the income of a family decreases, the percentage spent on health, education, and recreation decreases, but the percentage spent for food increases. This is known as *Engel's law.* This could be summarized by saying that at lower incomes a greater percentage is spent for essential goods than at higher incomes. It should be remembered, however, that consumption is limited by income, and that the 19 per cent spent for food by the families in the high-income group represents about ten times as much money as was spent by the lower-income group who spent 44 per cent for food.

2. Housing. Housing takes second place in family expenditures for all incomes up to $20,000. There it replaces food as the largest class expenditure. For income groups below $1,500, housing costs are less than half the outlay for food at the same level.

3. Household Operation. Household operation ranks third in family expenditures. It represents about 12 per cent of the total consumption at every income level, which means that the outlays for these expenses increase gradually as the income increases. Under this

head of *Household Operation* are included a large number of goods and services, such as gas, electricity, and coal, used for heating and lighting purposes; also refrigeration, telephone, laundry, full- and part-time household help, and a large number of smaller items such as ink and paper for family use, disinfectants, floor wax, and matches.

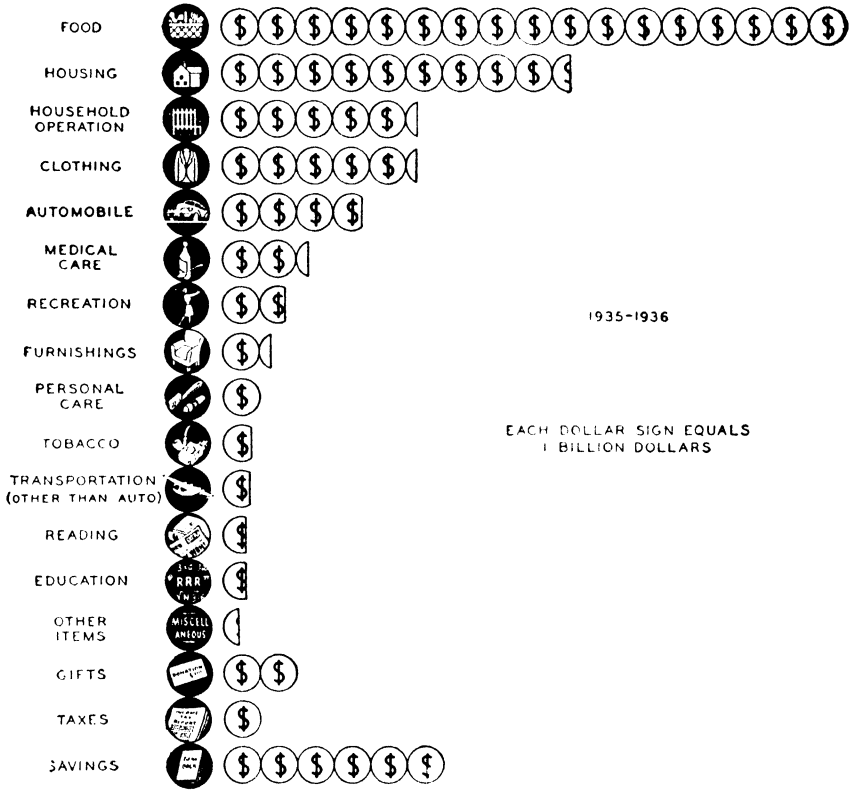


Chart II. Expenditures of American Consumers for the fiscal year 1935–1936

Adapted from *Consumer Expenditures in the United States*, National Resources Committee, 1939, page 4.

4. Clothing. Among the consumption categories, expenditures for clothing increase with increasing income. In the group having incomes below $500, only 7.5 per cent is spent for clothing, but in the group with incomes of $20,000, or over, 15 per cent of the total expenditures are for clothing. Under this head of *Clothing* are included costs for all wearing apparel and jewelry, all dry cleaning,

repairs, and storage, but not laundry, which is included under *Household Operation.*

Chart II. Chart II gives another and more complete picture of consumption in 1935–1936; more complete because, in addition to the family groups represented in Chart I, it includes expenditures of over 10,000,000 individuals living in private homes, rooming houses, and hotels, or living as one-person families. This means that it covers 98 per cent of the total population, who received almost 99 per cent of consumer income. The rest of the population are probably living in institutions. Chart II, then, is based on expenditures of approximately 29,000,000 families and 10,000,000 individuals, or 39,000,000 *consumer units.* Note that it pictures *aggregate disbursements* that total $50,200,000,000 and amounts are shown in terms of dollars actually spent, each dollar sign representing one billion dollars. The expenditures for food are given here as $17,000,000,000. Of this amount, almost $15,000,000,000 was spent in stores and in restaurants, and $2,000,000,000 was the imputed value of home-produced food.

Total disbursements for housing are shown in Chart II to have been $9,500,000,000, of which $2,400,000,000 was the imputed value of owned homes and rent-free homes. Household operations was the third item of expense, and amounted to $5,300,000,000. Clothing ranked fourth and almost equaled the amount spent for household operation.

Unlike Chart I, which names only the four principal items consumed, Chart II breaks down "other expenditures" into lesser items so that these may be considered separately.

5. Automobiles. Automobiles take first place among the items of lesser expenditures. Approximately 3 per cent of the total expenditures of families having incomes below $500 were for automobiles (or an average of $15 for all families of the group), as compared to 12 per cent for families having incomes of $20,000 or over. In this last group the average expense for automobiles for the year was $1,759. Under the head of *Automobiles* is included not only automobiles, new and secondhand, but all accessories, gas, oil, insurance, and taxes. If a car is used partially for business purposes, that has been deducted, making the above estimates for the family only.

Automobiles Included in Lesser Expenditures *Harold M. Lambert Photo*

Total expenditures by American consumers for automobiles are shown on Chart II to have been $3,800,000,000.

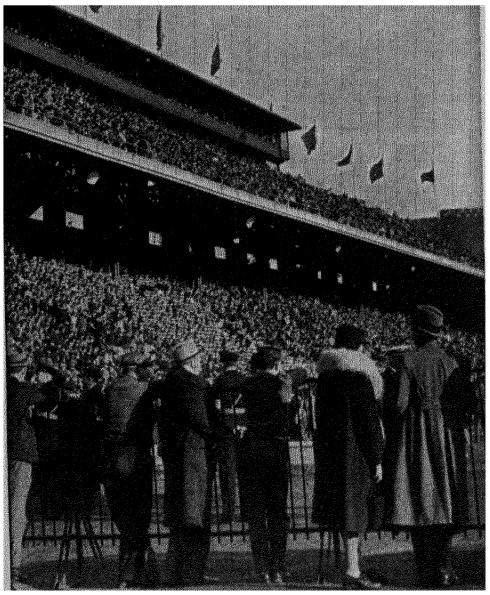
6. Medical Care. Medical care is another item in the lesser categories of expenditure. American families with incomes below $500 spent an average of $22 on medical care as compared to $837 spent by families with $20,000 income or over. The total amount expended, Chart II, was $2,200,000,000. This outlay covered only about three-fourths of the total medical expenditure of the nation. It is estimated that $650,000,000 more was spent by public and private agencies that supplied free medical services to part of the population. The term *medical care* includes all sums paid to physicians, dentists, oculists, and for hospital care, drugs, and eye glasses.

7. Recreation. Recreation is the item next in order in the list of consumption categories. This, like automobiles, is something of a luxury item. The amount spent on this item by families with lower incomes was about 1 per cent and the percentage rises with the rise in income. Average expenditures in the various groups ranged from $6 to $921. The total amount expended in 1935–1936 was about $1,600,000,000. Under this head are included movies, games, radios, vacation trips, and musical instruments.

8. Furnishings. Furnishings is another item in the lesser categories of expenditures. It includes furniture, kitchen and laundry equipment, glass, china, silverware, and floor coverings. At the highest

family income levels, furnishings account for only about 3 per cent of expenditures. At no income level does this item exceed more than 4 per cent of the total expenditures. Average expenditures for furnishings range from $9 to $461 for families, and the aggregate consumer disbursements were $1,400,000,000.

9. Personal Care. Personal care has a small part but, nevertheless, quite a stable part in expenditures for families; it accounts for approximately 2 per cent of the total consumption outlay at every income level. Chart II shows that aggregate disbursements for this item for all consumers were approximately $1,000,000,000. Under this head are included haircuts, shampoos, shaves, permanent waves, and all kinds of toilet articles.



Harold M. Lambert Photograph

Recreation

10. Reading. Reading uses a remarkably small percentage of family expenditures, not over 1 per cent at any of the income levels. This seems a small amount to spend for reading. The aggregate disbursements of all American consumers was slightly more than one-half billion. If it were not supplemented by public libraries and rental libraries, the expenditure for reading purposes would seem entirely inadequate in a democratic country in which education seems to be at least nominally emphasized.

11. Education. Turning to education, the percentage of income devoted to educational costs is but 0.6 per cent for incomes under $500 and rises to 3.1 per cent for incomes between $15,000 and $20,000. Education in Chart II (aggregate disbursements for all consumers); shows an outlay of just over $500,000,000, or less than

1 per cent of consumer income. But, as with medical care, the expenditures made by families and individuals directly covered only a part of the total amount expended by the nation. About five-sixths of the costs of education, in the period being studied (1935–1936), was met through public and private schools. The one-sixth paid for by personal incomes included schoolbooks and supplies for all of the population, and tuition at private schools. Governmental institutions, such as state universities and agricultural schools, are not included. The expenses of these are met by taxation.

B. Importance of Analysis of Consumption. In discussing these larger groups of needs of the American public, a pattern or measure of the standard of living is disclosed. The general conclusions have been arrived at by means of an extended study of the expenditures of a large number of families living on certain specified incomes. The study of expenditures has been a study of the desires, wants, or needs of the population, so far as these can be indicated by the percentage of their incomes expended for food, housing, household operation, clothes, and other items.

What has been the economic importance of the foregoing survey of consumption, and how can these statistical facts be used in the field of applied economics? First, the survey gives a fairly comprehensive and detailed picture of the demands of American consumers. If such a study were made each year, it would reveal the trends of change in each one of these wants, and would provide a rather clear idea of what our productive system would be called on to supply under given conditions. The study of these spending patterns should "prove very useful tools for analyzing market demand, evaluating standards of living, adjusting wages, developing taxation policies, and housing programs."[2]

It has been pointed out by Walter E. Spahr, well-known syndicate writer on economics, that the study of consumption has both a purely scientific and an applied value. It shows not only how people choose and buy goods, but also the causes that bring about changes in consumption. A study of consumption also gives to the producers a fairly clear idea of what the purchasers are likely to want, and thus

[2]*Consumer Expenditures in the United States*, p. 3, by the National Resources Committee, 1939.

enables them to make a pretty clear estimate of what and how much they should produce.[3]

Another point that may be emphasized under the head of *Consumption* is what is called by some the *law of variety*. For example, the number of commodities and services that make up the desires of civilized society are so many and change so continuously that economists speak of this more or less continuous desire for change as the *law of variety*.

C. Spending and Saving. There were approximately 39,000,000 consumer units in the United States in 1935–1936. These included 98 per cent of the population. Dividing these 39,000,000 units into ten equal groups on the basis of their income (the lowest group, under $340 income per year; the upper group those who have an income of $2,600 or over) the question may be asked how much of the amount received by each group is consumed and how much, if any, is saved. In Chart III, gifts and taxes have not been included in either the chart or discussion, as we are primarily interested in consumption and savings.

There are about 4,000,000 consumer units in each group. The poorest tenth, those who receive under $340 per year, spent only about $1,500,000,000 for current living expenses, an average of less than $400 a year, showing that a part of what was consumed was in excess of the income they were receiving. This is indicated in the chart as "consumption expenditures in excess of current income." This item had to be covered for the families, either through relief or assistance from relatives.

Up to and including the sixth of the ten groups into which all families and independent individuals were divided (all those earning up to $1,275) there was an excess of expenditures over income. The complete expenditure for the nation was about $50,000,000,000 and of this the entire lower half of the nation (those with incomes under $1,070) spent $13,500,000,000, or 27 per cent, of the total consumption.

These figures revealed a need for a substantial expansion of the national consumer market, as well as improvement in the purchasing power and the standard of living of more than one-half of the

[3]Walter E. Spahr and Others, *Economic Principles and Problems*, 1940, p. 418.

nation. As to the amount saved in the various groups, there was no saving in the first six groups, those having incomes below $1,275. The seventh, eighth, and ninth groups showed positive savings of increasing size. The question of saving is introduced here merely to

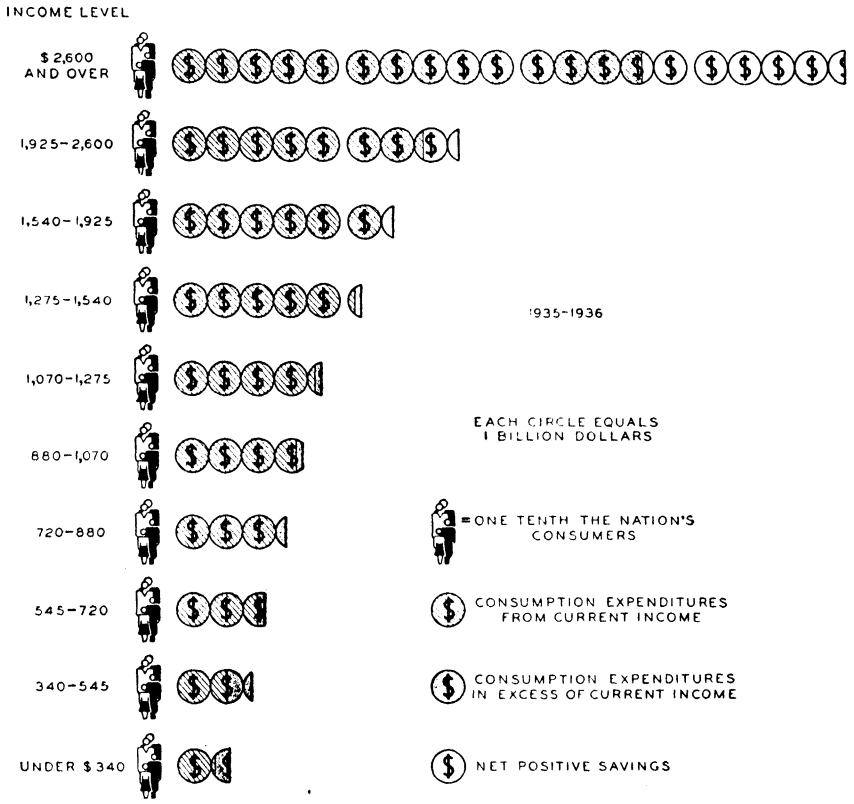


Chart III. Aggregate Outlay for Consumption and Savings by Each Tenth of Nation's Consumer Units

Adapted from *Consumer Expenditures in the United States*, National Resources Committee, 1939, page 10.

show that for considerably more than half of the consumers there was no saving indicated.

The foregoing conclusion that expansion of the consumer market was needed appears justified by the fact that less complete studies made for the years since 1936 show an increasing expansion in National Income and Consumer Expenditures, brought about by

war mobilization. This expansion had the effect of moving consumer units out of the low-income classes into the higher-income groups. In 1936 over half the consumer units were receiving under $1,000 per year; in 1942, during the early part of the year, less than one-third of the consumer units were receiving under $1,000 per year. Again, for 1936 almost three-fourths of the consumer units were earning less than $1,500; in 1942 less than half had incomes below $1,500.

KEY POINTS IN UNIT 2

1. Consumption needs of American people classified by National Resources Committee in 1935–1936.
2. Three primary desires—food, shelter, and clothing—listed here as four items: food, housing, household operation, and clothing.
3. Other types of consumer desires, that is, secondary desires, include: automobiles, medical care, recreation, furnishings, personal care, tobacco, transportation other than automobiles, reading, and education.
4. Percentage of income spent for food decreases as income increases.
5. In lowest income group, food demands for 1935–1936 took sixty-five per cent of income, or 44 per cent of expenditures.
6. As income decreases percentage of income spent for food increases—Engel's law, first stated about 1850.
7. Housing ranked second in expenditures of all groups up to $20,000 income.
8. In groups below $1,500 level, housing costs were less than half of outlay for food.
9. Amount spent for clothing increases with increase of income.
10. Automobiles, which rank first in the secondary-desires group, took only three per cent of income in lowest income group.
11. In lowest income group, less than seven per cent of income was spent for medical care, and about one per cent was spent for recreation, which includes: movies, games, radios, vacation trips, and musical instruments.
12. Reading and education account for a remarkably small part of income expended at any income level. This is partially due to the fact that family expenditures in these two categories are supplemented by public libraries and schools maintained by taxation.
13. A study of consumer expenditures is important when analyzing market demand, evaluating standards of living, and planning housing programs.
14. The number and type of commodities and services required by civilized society change so radically and rapidly from time to time that this continuous desire for change is called the *law of variety.*

15. Dividing the entire population of the United States into ten groups according to size of income, six out of the ten groups spent more than their income in 1935–1936; that is, the family living expenditures were in excess of the family income.

Unit 3. Influences that Affect Desires

A. What Determines Desires?
   1. Individual Personality.
   2. Environment.
   3. Industrial Conditions.
   4. Conventions.
   5. Changing Desires—Age.

B. Relation of Desires to Demand.

A. What Determines Desires? One of the great problems of the educational system is to find out what the personal qualities of a young person are and then develop the training partly, at least, along the lines of his greatest desires.

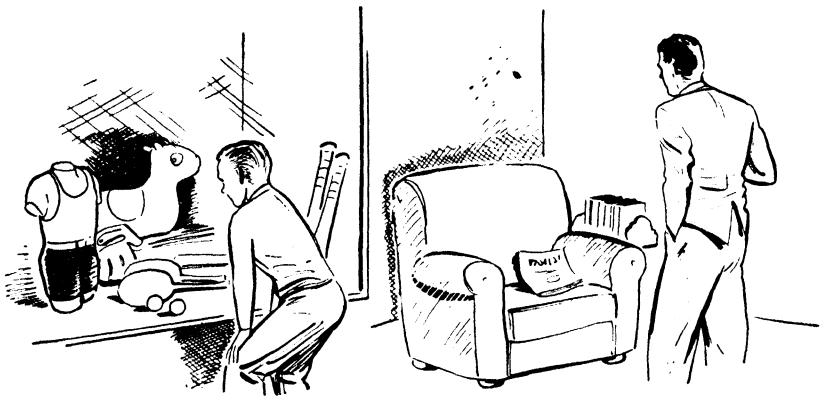
There are certain influences that affect consumption. What determines the desires that different individuals have for goods and services?

1. Individual Personality. To a certain extent, an individual's own characteristics decide what he will wish to consume. A young person of athletic tendencies will want tennis rackets or golf clubs or swimming suits; a person with musical tendencies will desire the services of a music teacher, and the pleasure of hearing operas or purchasing classical records; an older person with a studious mind will perhaps desire books; a vain young man wishing to impress his friends with his success may use his income for expensive clothing beyond the reach of his ability to spend. Or we may assume another youth who has a special wish to make things, that is, to model furniture or ships. His great desire is for a proper set of tools, so he can get on with the work he likes best.

2. Environment. What desires arise because of environment? A boy living on the west coast of the United States or in any of the north woods lake regions, in all probability would have a strong

desire for all manner of fishing tackle that he might take to the sea or on fishing trips. Or, a person living in an extremely hot region cannot be a great meat eater, neither will he want many warm clothes. Another effect of environment: people are usually obliged to build their dwellings according to the materials they find in the region in which they live. Even religious ceremonies and recreations will be somewhat shaped by physical surroundings, including climate.

3. Industrial Conditions. John A. Hobson, in his book *Work and Wealth,* has introduced the idea that industrial conditions may be



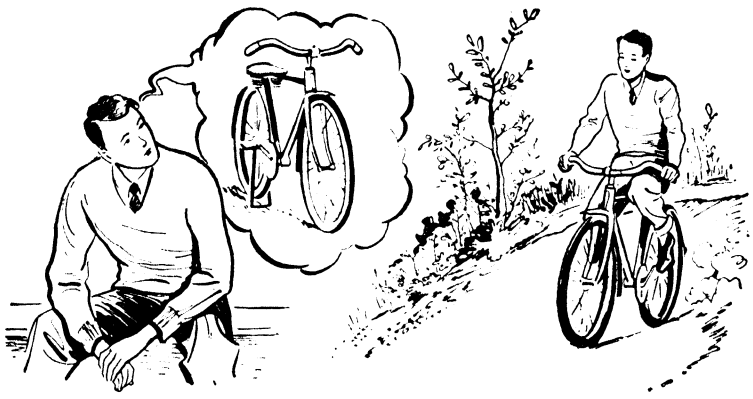
A Boy's Desires Change When He Becomes a Man

important factors in determining the desires of individuals. He points out that if one is doing active work his desires for food and for exercise at the end of the day's work will differ from those of someone who does sedentary work. The same would be true of those doing heavy manual labor as contrasted with mental work. To a large extent those engaged in different types of work—the clerk, carpenter, plumber, factory hand, or railroad man—will have some definite differences in their desires. A valuable exercise would be the working out of the budgets of several persons engaged in different occupations and find how their desires seem to be affected by their occupations.

4. Conventions. Another influence that may affect desires, and thus consumption, is what Hobson has called *conventions.* To illus-

trate: a young married couple, accustomed to seeing their friends living in well-equipped apartments and with cars to drive, will find that their desires have been shaped for them by what their associates do. Desires are also largely shaped by advertising; for example, the type of advertising heard over the radio. By drawing an attractive word description of an article, the advertiser attempts to create the desire on the part of his hearers to turn from some other brand of hairwash or cigarette and begin the use of his.

5. Changing Desires. Brief mention can be made of influences that act from day to day to change desires. You may graduate from

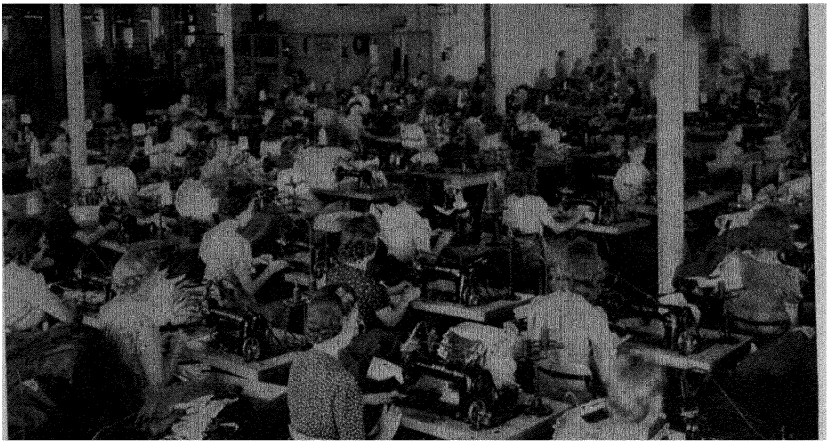


A Boy Desires Bicycle for Riding—Consumption Goods

an engineering school and volunteer to enter the Army; many of your desires will be changed. Late summer is changing into a chilly fall, requiring all sorts of changes in your desires for clothing; or, heavy rain having set in, you are giving up games like golf, and are playing chess at home. Advertising as discussed in the preceding paragraph may also be considered as a method of changing desires.

Throughout a person's lifetime, his desires may alter materially. There will be changes due to advance in age, and education and movement from one part of the world to another will greatly modify his desire for goods.

B. Relation of Desires to Demand. Desires are illusive and hard to measure; in fact, the only method of measuring them is to find out how much of a given article an individual will buy, or



ing Machines—Production Goods *Underwood & Underwood*

what his demand for the good is. *Demand* is the amount of a good that a buyer stands ready to take at a given price. Demand involves not only desire on the part of the would-be consumer, but also the ability to pay, a point that is highly important in all economic discussion. I may have a desire for a Rolls-Royce or Lincoln car, but have no ability to pay for it. Under the circumstances I cannot be said to have any part in the demand for these particular cars, for my purchasing power is not great enough to buy either of them.

In closing this part of our discussion of desires that lie at the basis of consumption, it is well to repeat that *desire*, as dealt with here, is desire for consumption goods; that is, goods that are to be used, in a form and at the correct place, at the proper time, and in the possession of one whose wants they can satisfy immediately. The difference between consumption goods and production goods can be further illustrated by a suit of clothes all ready to wear, which represents consumption goods; in contrast is a sewing machine, which is production goods since it has been used in the process of producing the suit. Another point to remember is the fact that the ultimate end of the economic process is to provide for human satisfactions.

KEY POINTS IN UNIT 3

1. Individual desires vary according to personality, environment, industrial conditions, conventions, and age.

2. Tennis players desire tennis balls and rackets; musicians desire musical instruments and music; persons interested in arts and crafts desire special tools and materials.

3. People living in different environments have different desires. Eskimos have little desire for refrigerators, while men living in extremely hot climates have no desire for warm clothing such as fur coats and caps.

4. People are influenced by the industrial conditions under which they work. Office clerks do not desire the same food or clothing that farmers desire; railroad engineers do not desire the same food or clothing that grand-opera stars desire.

5. Social conventions influence individual desires. Young married couples often desire the same type of house and household furnishings that their neighbors have; high-school boys desire sweaters or lumber jackets similar to those of their companions.

6. Desires of individuals change with passing of time. Elderly people do not desire the same consumption goods that teen-age youths desire.

7. In this discussion, desires considered include only desires for *consumption goods;* that is, goods with utility as to form, time, place, and ownership.

8. *Production goods* are those used in the process of producing consumption goods. Men's shirts are consumption goods, while the sewing machines used in producing the shirts are production goods.

Unit 4. The Principle of Diminishing Utility

A. Diminishing and Marginal Utility:
   1. Subjective Utility.
   2. Objective Utility.
   3. Measurement of Utility.
B. Further Illustrations of Diminishing and Marginal Utility.
C. Significance of Marginal Utility.
D. Making Choices.

A. Diminishing and Marginal Utility. There are economic writers who point out that there are two economic principles that approach as nearly to laws as any principles in economics. These are the principle of *diminishing and marginal utility* and the principle of *diminishing and marginal returns.* The principle of diminishing utility is important on the demand side of the market. If we are consuming a stock of goods at a given time, all units of which are identi-

cal, we consume each succeeding unit with a degree of satisfaction less than for the preceding unit, until we come to a point where we will consume no more units (u' in Fig. 2). This is an example of *diminishing utility*. Now the satisfaction that we derive from the last unit we consume is known as *marginal utility* (line TS in Fig. 2), for it is the satisfaction derived from the unit at the margin, or from the last unit consumed.

The value of a good to a consumer depends upon its utility. A clear understanding of the two terms, *subjective utility* and *objective utility*, is necessary to correct thinking in economics.

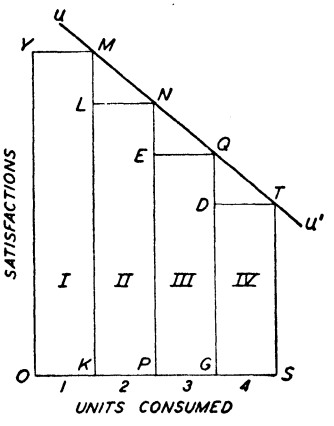


Fig. 2. Subjective Estimates of Utility

1. Subjective Utility. By *subjective utility* we mean a commodity considered from the viewpoint of the person whose desires are to be satisfied; it represents the evaluation he puts on a good, his estimate of its utility of which he alone can be conscious. It is the basis of his choice of one commodity instead of another.

Fig. 2 illustrates subjective utility. The vertical lines (for example OY) represent different amounts of satisfaction, and along OS are shown the number of units of the commodity taken by the consumer. When he has consumed the unit marked I, the entire satisfaction he is assumed to have enjoyed is $OKMY$. Now he consumes a second unit represented by II. His satisfaction is less than for I and is shown by the rectangle $KPNL$. This proceeds until he comes to unit IV. This is the last unit he will consume. The satisfaction is the rectangle $GSTD$. Since this is the last unit he consumes, it is called the *marginal unit* and represents *marginal satisfaction* or *marginal utility*. We cannot enter into the consciousness of another individual and know what OY, satisfaction, means to him. Then we must seek some other way of measuring it.

2. Objective Utility. In contrast with subjective utility, *objective utility* considers the qualities of a utility that enable it to satisfy

special human wants. *Subjective utility* deals with the satisfactions of the consumer, *objective utility* deals with the qualities of goods that can bring such satisfaction to the consumer. To illustrate, a large armchair, comfortably placed as to light and warmth, gives much satisfaction or utility to the person who sits in it to read; this is *subjective*. This chair has particular qualities that make it usable as a seat; it is not a table for dishes; its objective utility to its consumer will consist of the quality of being designed for a seat.

3. Measurement of Utility. Our problem now is to find out how to measure the satisfaction or utility that a commodity has for a consumer. It is generally accepted among economists that a method as good as any is to determine the amount of money that the consumer is willing to pay for a commodity. This means that he must take part in an exchange process as a buyer, paying money to a seller and thus establishing value and setting a price.[1]

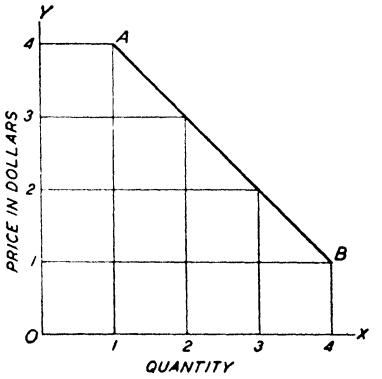


Fig. 3. Objective Estimates of Utility, Expressed in Monetary Terms

Fig. 3 illustrates the measurement of utility. The line OY is scaled to measure price, and the line OX measures quantity. If we place Fig. 3 next to Fig. 2 we see that for the first unit the consumer will pay \$4; for the second, \$3; for the third, \$2; and for the fourth, \$1.

B. Further Illustrations of Diminishing and Marginal Utility. Suppose you go at noon time to a certain restaurant. As a part of your lunch you order ice cream. You eat one dish of a certain flavor and a second dish of the same flavor. You may even eat a third, but there you stop. As a matter of fact you enjoyed the first dish most of all, the second less, and the third least; the satisfaction from the last unit of ice cream consumed is its marginal utility for you as the consumer. The next day when you go for your lunch, you may again consume two or more dishes of ice cream. This would be at another time, so it follows the principle of diminishing and

[1]Pigou, A. C., *The Economics of Welfare*, p. 24.

marginal utility, that of consuming a stock of identical units at the same time.

Margin means the edge or end of anything. The margin of a table means the edge of the table; the margin of a real estate lot is the end or edge of the lot. *Marginal utility*, then, means the satisfaction derived from the last unit of a good that is consumed. For example, a boy may eat three apples and then stop because his utility for apples is completely satisfied at that particular time. The utility of apples for the boy began to diminish after he had eaten the first apple. It diminished still more after he had consumed the second apple, and after he had eaten the third apple the point of marginal utility of apples for that particular boy at that particular time had been reached.

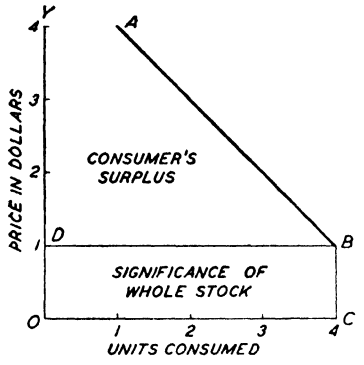


Fig. 4. Importance of Marginal Utility in Determining Total Utility and Consumer's Surplus

C. Significance of Marginal Utility. Of what importance is marginal utility? In Fig. 4, adjusted from Fig. 3, *AB* represents diminishing utility; *BC* equals marginal utility; *YOCBA* indicates the total utility if the four units were consumed in succession, and the usual practice is to consider price, expressed in money, as the measure of the satisfaction obtained. If the marginal unit will be taken at the price of $1, that will be the price paid for each of the other units. Although you would be willing to pay $4 for the first unit, you do not, as the price is set by the marginal unit. Hence *OCBD* represents the significance of the whole stock to the consumer. But since you would have paid $4 for the first unit, if you had been compelled to, and in the same way $3 and $2 for the next two, the total utility of the whole stock can be represented by *YOCBA*. Since as a matter of fact you pay only $1 for each of the four, or *OCBD*, there remains out of the total the figure *YDBA*, called the *consumer's surplus*, representing the amount you would have paid if you had been forced to. You do pay *YOCBA* minus *YDBA*, which is *OCBD*.

D. Making Choices. Another point is of much importance in connection with marginal utility. There are many different things that we must buy, many desires that we want to satisfy. But it may be that even before we have completely satisfied our desire for a certain thing, we must stop buying because of lack of money and begin to buy other articles we need. In other words, we are constantly forced to make choices among goods in an attempt to get the greatest amount of satisfaction possible out of a given amount of money. This process is spoken of as a *balancing of our desires.* For example, if a student who had an income of only $10 per week spent $4 of this on movies, we would decide that he was not a reasonable human being. In a study of economics it must be assumed that man is a reasonable being. So if a person shows poor judgment in making choices of the amount of a thing he buys in relation to the amount of money he has to spend to cover all his needs, he cannot be considered an example of a reasonable person.

Harold M. Lambert Photograph

Making Choices—Balancing of Desires

The next question to be answered is: How does an individual secure the greatest amount of satisfaction, i.e. utility, from the expenditure of his money? In order that the consumer shall secure this satisfaction from all of his money, he must expend it in such a way that the last dollar that he pays for any good shall bring the same satisfaction to him that he obtained from the last dollar that he expends for every other good. Here again is a point where we must assume that humans are reasoning beings and can make some meas-

urement of the satisfactions they receive. As already pointed out, many economists hold that this satisfaction will not be far different from the amount of money that they pay. Fig. 5 illustrates this.

Fig. 5 shows wages of a beginning workman receiving $16 per week, each dollar being represented by a rectangle. See Fig. 5 at (*G*). In our study of consumers' desires, food stands first as an important need. Fig. 5 at (*A*) shows that the workman will expend $7 of his $16 wages on food. The marginal (last) dollar expended is the seventh, and the food procured with this dollar represents the marginal utility he gets for the money he expends for food. Fig. 5 at (*B*) shows that he expends $5 for housing. Here, again, the last dollar expended for housing is the marginal utility, and is shown by a rectangle similar to the one that represents the last dollar spent for food. Similarly, (*C*), (*D*), and (*E*) show household operation, clothing, and automobile expenditures. Finally, all are combined in Fig. 5 at (*F*), and are presented in still another form at (*G*); the rectangles representing the last dollar expended are shown equal and shaded, indicating that the satisfactions from the expenditures of these last dollars are the same in each case.

Any consumer is continuously comparing the utilities of one good that he purchases with the utility of all the other goods he desires. Another angle of this is the greatest amount of utility that can be secured socially in the consumption of goods. If it is well to secure the greatest utility for the individual, it may be judged that it is an equally good thing for society as a whole.

KEY POINTS IN UNIT 4

1. There are two important economic principles which should be especially emphasized: the principle of *diminishing and marginal utility* and the principle of *diminishing and marginal returns.*

2. Since economics is a social rather than a physical science, economic principles cannot be stated as concisely as the laws of physical science; for example, Ohm's law for electrical measurements and Newton's law of gravitation.

3. The principles of *diminishing and marginal utility* and of *diminishing and marginal returns* are two principles often referred to as *laws* because they come as near being laws as any principles in economics.

4. The value of a good to a consumer depends upon its utility; that is, its power to satisfy a desire.

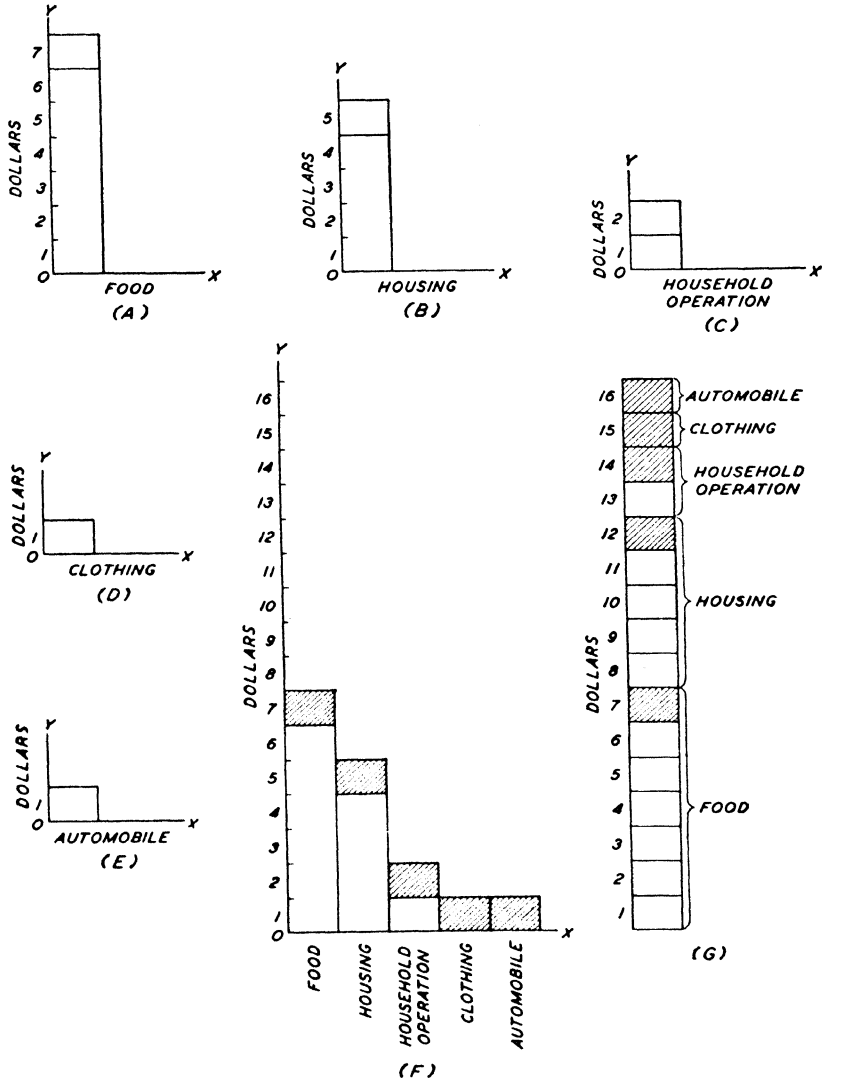


Fig. 5. How Money Income Is Expended

5. The principle of *diminishing and marginal utility* means the satisfaction derived from consuming a stock of goods up to a point of complete satisfaction at a specific time. For example, a boy may eat three apples and stop. The satisfaction from the third apple is the marginal satisfaction and so represents the marginal utility of apples for the boy at a given time.

6. Utilities are both *subjective* and *objective.*

7. *Subjective utility* means the satisfaction derived from a commodity by one person. It has to do with the personal use made of the utility by the consumer. A consumer desires an armchair to use as a seat. When placed in a comfortable room under a good light, a person sitting in the chair may be completely satisfied. This is an example of *subjective utility.*

8. *Objective utility* means the qualities which make a commodity satisfy a special human want. From an objective viewpoint, the chair has value as a seat rather than as a table. This is its *objective utility.*

9. Consumers are continually comparing the utilities of one commodity with the utilities of all others.

10. The process of making choices among different commodities in order to get the greatest possible satisfaction out of the money we have to spend is known as *balancing of desires.*

11. The desire for a particular article at a given time can be completely satisfied, but the desire may revive at another time; for example, the boy who ate three apples was completely satisfied at the time, but probably would want more apples the following day.

12. When a stock of goods is successively increased, a point is finally reached where an additional unit adds no utility at all. A consumer willing to pay for a given number of units will not be willing to pay for more units than required to satisfy his desires. This illustrates the principle of *diminishing and marginal* utility.

Unit 5. Consumer's Ability to Pay, or Consumer's Income

A. Importance of Income.
B. Income Classified.

A. Importance of Income. As previously stated, desire is not the only thing that is important in determining how many units a consumer will use; his income or ability to pay is also important. Demand is really the relation that the desire for a good, like bread,

has to the desire for money which might be used to buy some other good. We have heard it said that a dollar might not mean much to one man but might mean a great deal to another man. In the first case, the man has many dollars and is able to buy quantities of several commodities; in the case of the man to whom a dollar means a great deal, we know at once that he is poor and must limit the amounts of goods that he can buy. He may desire coal as much as the first buyer, but he cannot buy at the high prices that the first man can, neither can he buy so many tons at a lower price.

B. Income Classified. An individual may have a desire for a good but not have the money to buy it. Then we say he has no demand for the commodity, because we must include, in determining demand, not only desire for a good but the purchasing power of the buyer. It is well at this point to emphasize the range of incomes to be found in the United States.

In Chart III (1935–1936) the total consumer units were divided into ten equal parts so that each income group specified on the chart represented somewhat less than 4,000,000 families and individuals. Chart IV presents a picture of the distribution of income, by $1,000 intervals, among families of two or more persons (the average was slightly over four) for the year 1929. It shows what per cent of the total families is represented in each income group, and in addition it shows the per cent of the aggregate income which was received by each group. The 27,474,000 families represented in this chart received an aggregate income of approximately $77,000,000,000, or about $2,800 per family. Half of the families received incomes of $1,700 or under; the other half received $1,700 or over. These incomes, however, included profits received from transactions such as the sale of property and securities. The following statements supplement data shown on the chart:[5]

Nearly 6 million families, or more than 21 per cent of the total number of families, had incomes less than $1,000. About 12 million families, or 42 per cent, had incomes less than $1,500. Nearly 20 million families, or 71 per cent, had incomes less than $2,500.

[5]Maurice Leven, Harold G. Moulton, and Clark Warburton, *America's Capacity to Consume*, p. 55 (1934), by permission of The Brookings Institution.

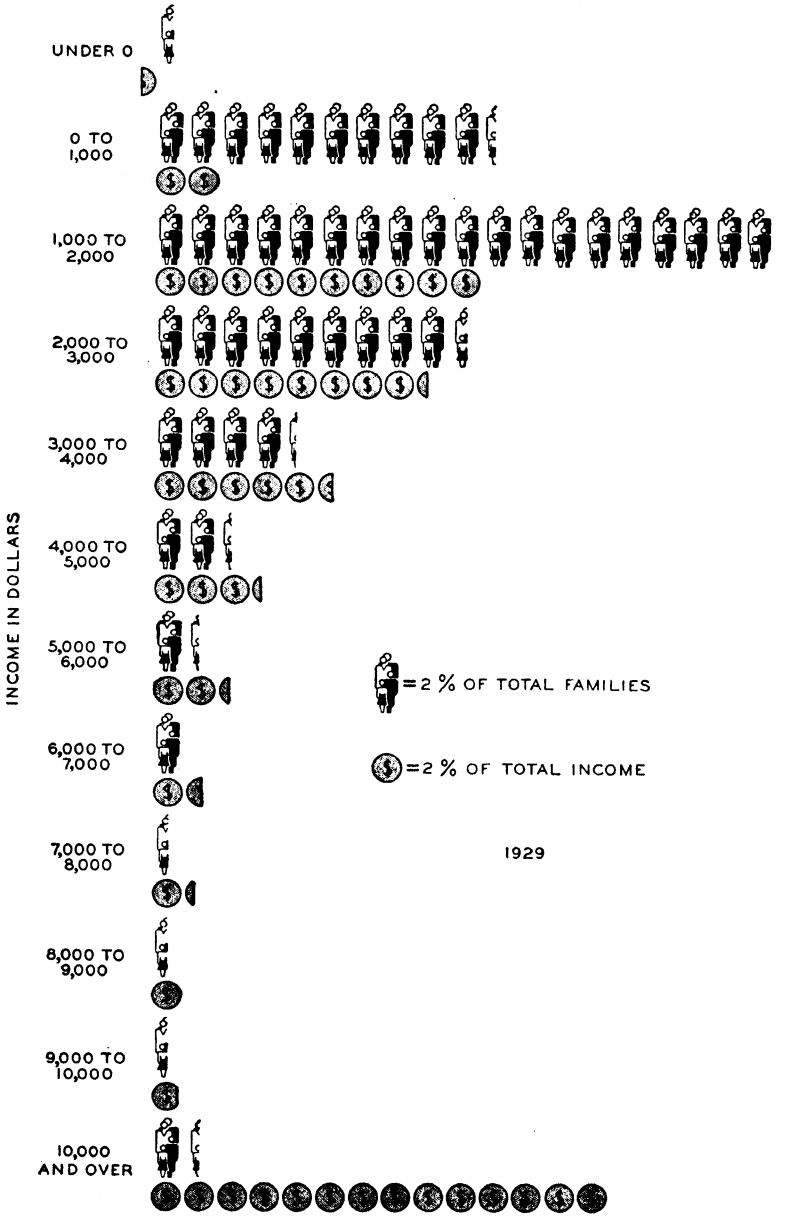


Chart IV. Distribution of Income among Families of Two or More Persons (1929)

Adapted from *America's Capacity to Consume*, by Maurice Leven, Harold Moulton, and Clark Warburton, page 53. The Brookings Institution.

Only a little over 2 million families, or 8 per cent, had incomes in excess of $5,000.

About 600,000 families, or 2.3 per cent, had incomes in excess of $10,000.

KEY POINTS IN UNIT 5

1. It was previously pointed out that desire is a vitally important factor in determining how many units of a commodity a consumer will buy; without desire there will be no demand, and without demand there will be no economic activity.
2. Income is also a vitally important factor in determining the amount of consumption goods a consumer will take. Regardless of how great a consumer's desires may be he cannot buy goods without money, or some equivalent medium of exchange.
3. One dollar may mean little to a man with a relatively large income, but one dollar may mean much to another man with a smaller income.
4. The desire of a small-income man for high-priced fuel to heat his home may be as great as the desire of a large-income man for the same fuel, but the small-income man cannot buy the high-priced fuel because of his inability to pay for it.
5. An individual may have a great desire for a good, but has no money to buy it. In that case, because of his inability to pay he is said to have no demand for the commodity, since, in determining demand, not only desire for a good is considered but also the purchasing power of the buyer.

Unit 6. Demand

A. Demand Defined.
B. Demand Schedules.
C. Changes in Demand Schedules.
D. Elasticity of Demand:
   1. Elasticity of Infinity.
   2. Elasticity of Zero.
   3. Elasticity of Unity.
   4. Elastic Demand.
   5. Inelastic Demand.

A. Demand Defined. With the significance of diminishing utility and marginal utility clearly in mind the next consideration must be *demand. Demand* means desire to purchase a commodity,

accompanied by means of payment. For an individual, *demand* means the amount of goods he is ready to buy at a price. He not only desires the good, but he is able to pay for it. This shows us that demand cannot be the same as desire or need; it is more; it requires the ability to pay.

B. Demand Schedules. Demand must next be considered from the point of view of many buyers whose desires for the good are different and whose ability to pay is different. Instead of having the demand of one individual we have a *demand schedule*, which means different quantities that buyers stand ready to take at different prices. First, a demand schedule is set up in which there are two factors that vary. These are *price* and *quantity*. The mathematician

DEMAND SCHEDULE

PRICE	QUANTITY
$4.00	100
3.00	200
2.00	300
1.00	400

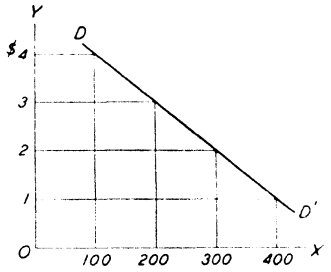


Fig. 6. Demand Schedule

would say these are two variables. We also know they will vary inversely; that is, as one grows smaller the other will grow larger and *vice versa*. This is the schedule represented in Fig. 6.

In this diagram, prices are shown on the *OY* line. Since *O* here stands for zero, the numbers increase as they move away from *O*. The *OX* line always represents quantity. Both of these lines are scale lines. On *OX* the units of quantity, as pounds, yards, tons, are always measured.

Assume a merchant has a certain necktie that has been selling at $4. The number of people who can buy at that price is small; in this case only 100 ties are sold. Assume further that the price is reduced to $3. This may mean the price of the tie has come within the range of the purchasing power of a larger number of buyers; and so on, until the price has fallen to $1; there are many buyers standing ready to take different numbers of ties as the price changes,

and 400 ties are sold at $1. It stands to reason that with a fall in prices a larger number of things would be purchased, all other conditions remaining the same. DD' is the curve representing the demand schedule. As the curve moves toward O in relation to the OY line, it moves away from O in relation to the OX line. This shows that as price lowers, the quantity sold increases. If, however, price rises, the curve would begin low and rise. Moving toward Y in relation to OY, it would move away from O in relation to the OX line, but it would be shorter than DD' because, when the price rises, quantities sold would be smaller. Then it can be said that, when price rises, the quantity taken is less.

C. Changes in Demand Schedules. It is now necessary to consider what is known as a *change of demand in the schedule sense.* This is

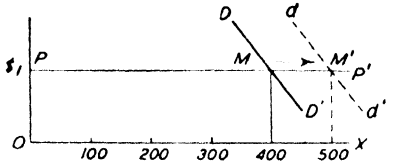


Fig. 7. Increase of Demand in Schedule Sense

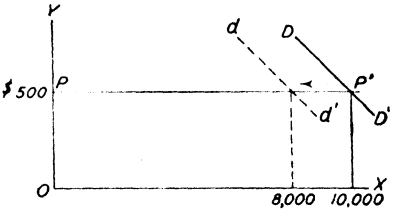


Fig. 8. Decrease of Demand in Schedule Sense

brought about usually by a change in desire or the need for a good. Customarily, when the price of a good remains the same, but the quantity taken is enlarged, we speak of this as an *increase of demand in the schedule sense.*

To illustrate this, see Fig. 7. Assume the price of ice per hundred pounds is $1. It requires 400 pounds per week to keep a certain ice box cool in an ordinary summer; however, the summer is unusually hot, there are small children in the family, and the milk must be kept cool for them. Now it requires 500 pounds to keep the box cool. In other words, a larger amount is taken at the same price per hundred pounds. A short demand curve, DD', is shown through the point M, representing a single point on a demand curve. Then the horizontal line PP' was extended until it touches a perpendicular drawn at *500* and a small piece of demand curve dd' is shown through M'. The distance from M to M' represents the change in

quantity as measured on *OX* from *400* to *500* pounds. The arrow represents two things, first that the quantity is increasing because the arrow is headed away from *O*, and it is horizontal because the price remains the same no matter how much is sold. This, then, is an increase of demand in the schedule sense, with price being held constant and the quantity increasing.

Fig. 8 represents a decrease in demand in the schedule sense. A certain automobile company was able to sell 10,000 cars at $500 per car in a prosperous year. Assume a depression has come, and the company, still holding its price at $500, finds that it can sell but 8,000 cars during the year. The line *DD'* represents the former demand curve, *dd'* represents the changed demand curve. The diagram shows an arrow pointing toward the left because the quantity is moving toward *O* while the price remains the same. A change of demand in the schedule sense means that the desire for the good has either decreased or increased in relation to a given price.

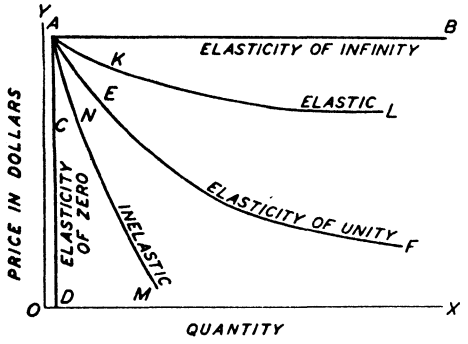


Fig. 9. Various Types of Elasticity of Demand

D. Elasticity of Demand. The next problem in relation to demand is to find out how much the quantity taken will change with a change in price. This is a practical problem in business when the seller of a good is attempting to find out whether it would be better to sell less goods at a higher price or to lower the price and sell more units of the good. This brings us to a discussion of *elasticity of demand.* The tendency for the quantity purchased to change when the price changes is called *elasticity of demand.* Under this general heading five different kinds of elasticity of demand can be considered, which depend on the relation of the change in quantity taken, to the change in price. A diagram, Fig. 9, may help to reach an understanding of this problem.

1. Elasticity of Infinity. Let *AB* in Fig. 9 represent one kind of elasticity of demand. This is said to represent a condition where

elasticity is *infinity*. That is to say, if the price remains just the same for example, *OY*, the amount purchased would continue to increase along the line *AB*, which is parallel to *OX*. Insulin, used by patients requiring it for diabetes, furnishes an example of elasticity of infinity. The price does not change, but patients must have the substance in order to live so new patients are added to those already using it and the quantity demanded goes right on increasing but the price does not change.

2. Elasticity of Zero. The line *CD* in Fig. 9 represents a constantly falling price, but still the quantity bought does not increase; the increase is zero. Suppose a shipment of eggs has been held too long in the warehouse. No matter how much the price is lowered, no buyers will be found; the demand remains at zero, and the elasticity is zero.

3. Elasticity of Unity. The curve *EF* of Fig. 9 represents the elasticity of unity. This line is shown by itself in Fig. 10 for convenience in studying. It will be apparent that five units will be sold at \$4, and the value of these will be \$4 × 5, or \$20. When the price is lowered to \$2, ten units will be sold, and the value will be \$2 × 10, or \$20. As the price is halved, the number sold doubled in both cases. Then the curve *EF* is a constant outlay curve, which means that, if the price drops, the quantity taken will increase in the same proportion that the price falls, so that the seller will always be receiving the same total amount. This is called a demand representing an *elasticity of unity*.

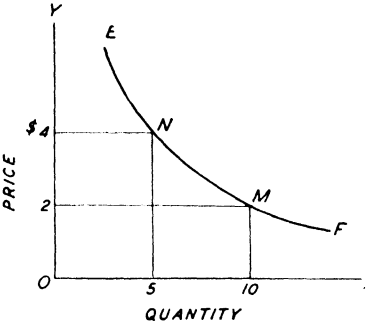


Fig. 10. Elasticity of Unity

4. Elastic Demand. There are two more types of elasticity. The first is called *elastic demand* and is represented by the line *KL* in Fig. 9. It always lies between the lines of elasticity of infinity and elasticity of unity. This represents a condition where, if the price falls slightly, a large number of buyers come forward and the quantity bought is much larger in proportion than the fall in price. This is a situation of special interest to an industry that approaches

monopoly. By the use of statistics, estimates can be made of the probable number who would buy if the price were lowered, and, since the monopolist can control his output and to a considerable extent his price, he can estimate where to set his price in order to secure the largest monopoly profit.

Fig. 11 illustrates elastic demand. Assume that an article has a price of $3 per unit and that 10 units are sold at that price. The price is dropped to $2.50 and 30 units are sold. Here the proportionate increase in the number of units sold is much larger than the proportionate fall in price. Compare this with the elastic demand curve on Fig. 9. This type of demand applies usually to things considered luxuries.

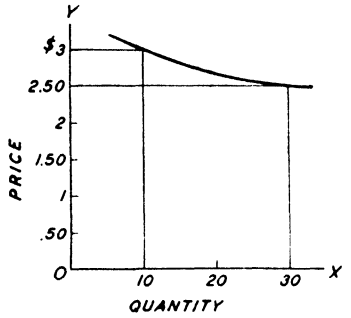


Fig. 11. Elastic Demand

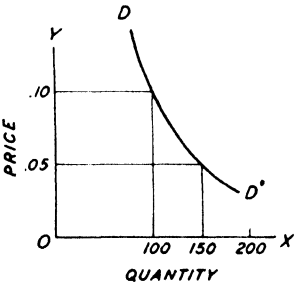


Fig. 12. Inelastic Demand

5. Inelastic Demand. The last demand considered is the inelastic demand, where a considerable fall in price is accompanied by a comparatively small increase in the amount bought.

Bread will illustrate this, Fig. 12. The price has been 10 cents and at that price 100 loaves were taken. The price dropped to 5 cents and 150 loaves were taken. The fall in price has been large, but the increase in buyers was much smaller in proportion. This gives an *inelastic* curve which lies in Fig. 9 between *unity* and *zero* elasticity and is usually found applying in case of articles that are necessities. Bread is a necessity and the quantity taken would remain about the same whether the price were raised or lowered.

Summary. In considering what price policy to follow, the business man must always consider the effect it will probably have on the number of units he can sell. This discussion has dealt with the

demand of the buyer only. Later, when the costs of production c goods are considered, it will be found that the two, *demand* and *co of supply*, are closely associated. The price and the quantity bough may change at the same time, as shown in the discussion of elasti and inelastic demand. Or the price may be held constant and th quantity may change as shown in Fig. 7. Two questions have bee answered. The first is: If the price changes and the quantity take also changes, what relation does the change in quantity bear to th change in price? This question involves elasticity of demand and shown by the slope of the demand curve. The second question i What happens if the price remains the same but the quantity take increases or decreases? This means a change of demand in th schedule sense and the change is shown on a horizontal line as i Fig. 5, 7, and 8.

KEY POINTS IN UNIT 6

1. Demand defined: *demand* is the desire to purchase a commodity accompanied by the means of payment. Mere desire or need for a com modity is in no real sense a demand for it; effective demand is based o ability to pay.

2. A *demand schedule* includes two variable factors—*price* and *quantit*

3. Price and quantity vary inversely but not necessarily proportion ately; as price grows smaller quantity grows larger, and *vice versa*. Ge erally speaking, the lower the price, the greater the quantity that wi be purchased.

4. Demand schedules change as desire for a good changes. Th quantity purchased may remain constant, while the price may increas for example, the consumption of potatoes in a given community ma remain constant while the price may increase due to a shortage. Or th price of a good may remain constant and the quantity taken may in crease; for example, the price of ice may remain $1 per 100 pounds, b during the hot summer months the consumption will increase.

5. *Elasticity of demand* means the tendency for the quantity of goo purchased to change when the price changes. It has been pointed o that as prices fall the quantity tends to increase, and *vice versa*. This sho an *elasticity of demand*. However, certain qualifications must be note There are five different types of elasticity of demand: *infinity*, *unity*, *ze elastic*, and *inelastic*.

6. *Elasticity of infinity* means that, even though the price remains th same, the quantity purchased may continue to increase; an example *insulin*. The increase in the number of patients who buy insulin does n change the price, which remains constant.

7. *Elasticity of zero* means that, regardless of how much the price of good may drop, the demand for the good does not increase. An example i given of eggs held too long at the warehouse and for which no buyers ɔuld be found.

8. *Elasticity of unity* means that if the price of a commodity drops, ıe quantity purchased will increase proportionately; that is, if a com- ıodity sells for $4 per unit, five units are sold for $20. If the price drops ɔ $2 the quantity sold will be 10 units, but the amount received for the ɔn units is $20.

9. *Elastic demand* represents still another type of demand. This means ıat when the price of a commodity drops even slightly, the quantity ıken is relatively greater in proportion to the drop in price. Illustrations ɔf this are luxuries, generally. Elastic demand will always lie between *ɔsticity of infinity* and *elasticity of unity.*

10. *Inelastic demand* means that, regardless of the fall in price, the ıantity of goods taken is relatively small in proportion to the drop in ɔice. An example is any essential food product such as bread or potatoes. ıelastic demand will always lie between *elasticity of zero* and *elasticity of ıity.*

Unit 7. Summary of Consumption

A. Importance of the Study of Consumption.
B. Durability of Consumer Goods.
C. Wants the Basis of Consumer Goods.

A. Importance of the Study of Consumption. The importance of a ıdy of consumers' wants can be stated as follows:

> Basic to the structure of the American Economy are the wants of consumers. ɔod, clothing, shelter, education, transportation, and a host of other items are ıght by consumers. To the extent that customers have the power to make ɔir wants effective, these wants are reflected in economic activity. The character d proportioning of these wants influence production and contribute to the ıcture of the whole economy.[6]

Structure of wants is a new term being used to designate the pat- rn of consumers' expenditures or budgets. Expenditures vary ɔm year to year, but, although they may change during a short

[6] *Structure of American Economy*, p. 6, National Resources Committee.

time under the influence of advertising, education, depression, or the introduction of new types of goods, nevertheless, as a whole, the most important wants remain much the same during long periods.

It is true that consumers' wants are found in other directions than those satisfied by the expenditures made through private spending of money for goods. Consumers also receive services from the Government which they do not pay for directly, but through taxation; fire protection, police protection, and schools, all belong in this class.

Still another point to be borne in mind is that families with relatively small incomes are those whose wants are reflected in the actual expenditures that direct production. For example, in 1935–1936 more than half of the expenditures were made by families and individuals having incomes between $500 and $2,000; almost 85 per cent of the family expenditures were made by families with incomes below $4,000 and only 6.7 per cent of purchases were made by those having incomes above $10,000. The important group, then, in considering consumer expenditures and their effect on production is the small-income group. In fact, almost two-thirds of the total expenditures (by families and individuals) for consumption were made by those having incomes below $2,600, constituting nine-tenths of the consumers. This indicates consumptions controlling influence in production, and its function of determining kinds, quantities and qualities of goods to be produced.

B. Durability of Consumer Goods. Also to be taken into account, in connection with consumer expenditures, is the durability of the goods purchased. Consumers' goods may be classified in five groups as to durability. Durable goods include automobiles and furniture, since they provide services during a considerable period of time. Semidurable goods include clothing and automobile tires, both of which give service for about a year. Nondurable goods include food and gasoline, as examples, for in their case they render but a single service, i.e., a single operation destroys their utility. *Services* play a large part in the demands of consumers, but they do not have concrete, material form. Services are rendered directly to the consumer and consist of such things as music, dental services, education, hair cuts, and shampoos. *Housing* is listed as a durable

good, since the rent paid for the use of a house is considered as paid for the use of a durable good.

Proportionate expenditures classified as to degree of durability are shown in Chart V. It has been shown by the National Bureau of Economic Research that in 1879 durable commodities made up less than one-fifth of the total finished commodities intended for consumption, but by 1936 these durable articles (including housing) were about one-third of the total. It is estimated that a large part of this increase in durable goods is due to the development of the electrical and automotive industries.

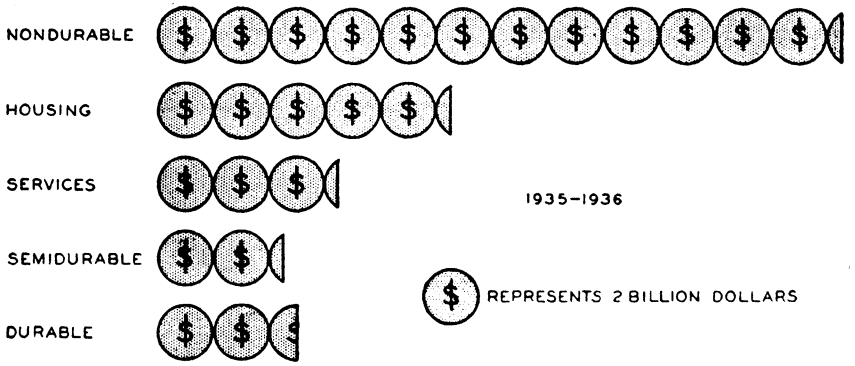


Chart V. Aggregate Expenditures for Consumption by Degree of Durability

C. Wants, the Basis of Economic Activity. It must always be borne in mind that if there were no wants there would be no economic activities. It is important to remember that in 1935–1936 more than 75 per cent of the Nation's expenditures for current consumption was for food, shelter, and clothing. Yet man has need of other things. He, as no other animal, has the power of organized thought: however, in the intellectual categories of wants, the expenditures of consumers are low except where supplemented by public education and public libraries. Chart II shows the wants that are most common and the other charts show that, for a large number of consumers, these wants are not filled. In the study of business cycles, it becomes evident that it would be possible for American consumers to absorb practically all that could be produced in the United States if their purchasing power were large enough.

This is not the place to discuss the incomes received by consumers in the form of wages, interest, and rent, but it is income that determines the ability of any individual or group of individuals to consume. The charts list the range of incomes.

Our discussion of consumption could hardly be complete without mention of the standard of living. How shall it be defined? It is made up of values (goods and services) that an individual or a social group is willing to make an effort, or even undertake sacrifices, to secure. It is the goal toward which individuals strive. Another expression often heard is *the plane of living* which may be explained as the real goods and services actually secured or received; in other words it means the way in which people actually live. Standard of living, then, is the goal which, whether or not it is reached, has a good deal to do with determining the way in which a family or individual expends his money.

A further question relating to consumption is that of present consumption of goods as compared with delayed consumption. The majority of people desire to consume a thing now. The present time is when they wish to enjoy an article, but many defer consumption and wait for the future. Consideration is given this under interest and saving for investment purposes.

KEY POINTS IN UNIT 7

1. The study of American economy is based upon consumers' wants.
2. Important among consumers' wants are the three primary desires for food, shelter, and clothing essential to existence.
3. In addition to the primary desires are many secondary desires not essential to existence. These include transportation, education, recreation, and many others.
4. A new term used to designate the pattern of consumers' budgets is *structure of wants.*
5. The structure of wants varies under the influence of advertising, education, depression, and similar influences, but over a long period of time the wants remain much the same.
6. Families with relatively low incomes are the ones whose wants are reflected in actual expenditures that direct production.
7. Durability of goods is also an important factor that should be taken into account in connection with consumer expenditures.
8. It must always be kept in mind that if there were no wants there would be no economic activity.

9. The figures presented by the National Resources Committee show that a large number of consumers' wants are not satisfied, and that more than 75 per cent of consumers' expenditures for current consumption in 1935–1936 was for food, shelter, and clothing.

10. If the purchasing power of the people of the United States were increased until we reached our goal of a satisfactory standard of living for every individual, we would consume practically all that could be produced in the United States.

QUIZ QUESTIONS ON CHAPTER III

1. *In a study of economics what is meant by* consumption?
2. *Why should a study of economics begin with consumption rather than production?*
3. *Distinguish between consumption goods and production goods.*
4. *Name four important factors of production.*
5. *Why is a study of human desires important in economics?*
6. *Name the three primary desires. Name five secondary desires.*
7. *In a classification of consumers' expenditures, what item ranks first? Second?*
8. *In the lowest income group, what percentage of the family expenditures is for food?*
9. *According to Engel's law, how does the increase in the family income affect the percentage spent for food?*
10. *Explain why desires for consumption goods vary according to personality, environment, industrial conditions, conventions, and age.*
11. *Give examples found in your own community showing how production depends upon consumption.*
12. *Is desire the only important factor in demand for goods?*
13. *Define* demand *as used in the economic sense.*
14. *What is meant by* elasticity of demand?
15. *Explain the meaning of each of the following: elasticity of infinity, elasticity of unity, elasticity of zero, elastic demand, and inelastic demand.*
16. *In economics what is meant by the* utility *of a good?*
17. *Explain by example how value may be added to a utility by change in form, time, place, and ownership.*
18. *Define the economic principle of* diminishing and marginal utility. *Give examples.*
19. *Why do consumers, before buying a commodity, compare its utility with the utilities of all other commodities? What is this process of making choices called?*
20. *What is the most important factor in all economic activity?*

Chapter IV

PRODUCTION OF COMMODITIES AND SERVICES

OBJECTIVE: An explanation of the various factors and processes that enter into production.

PREVIEW: *Production is the process of creating either commodities or services to satisfy desires. All economic systems are the result of an evolutionary progress through various stages of development. This is a so-called* machine age. *The amount of goods that can be produced today by power-driven machines far exceeds production in any former age. This is also called an age of* capitalism. *This term adds another idea. In this discussion,* capitalism *simply means the use of capital embodied in machines and material goods which, in connection with human effort, are used to aid in further production. The use of our national resources is an essential factor in the production of goods. Farmers raise food and raw materials, miners dig ore and coal, industrial workers change these raw materials into commodities for consumption; that is,* consumption goods. *Through the process of market exchanges these goods are placed in the hands of the consumers themselves, who are to a large extent the producers of the goods. The function of our entire economic system is to use our national resources to the best possible advantage for satisfying the desires and needs of the people as a whole. Numerous problems are involved in this production process. Prominent among these are ownership of natural resources and manufacturing procedure. The latter includes the numerous problems of capital, labor, raw material, and enterpriser. Services in the form of human effort and professional skill are also important in the solution of our economic problems. This chapter deals with the various factors that enter into the production of consumers' goods, emphasizing the relative value of each factor in the whole economic process.*

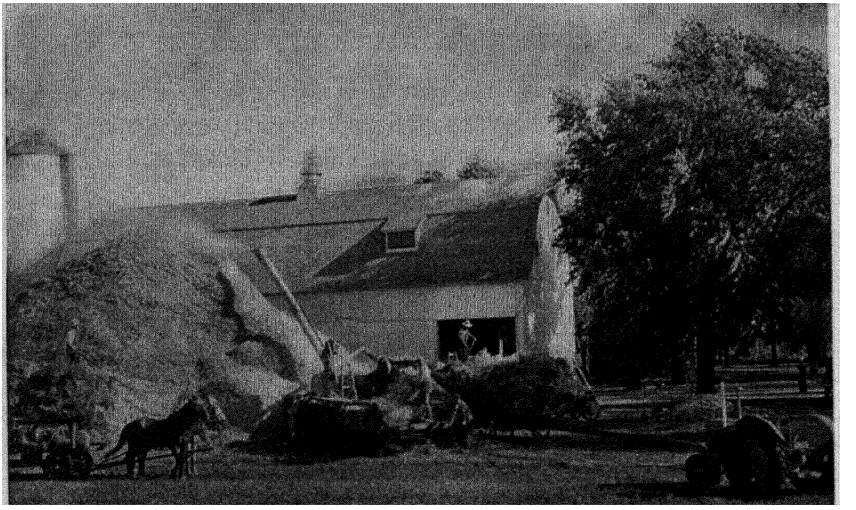
Unit 1. The Process of Production

A. Production Defined.
B. The Coming of Steam Power.
C. Modern Production.
D. Capitalist Society.
E. Roundabout Method.
F. Individual Exchange.

A. Production Defined. *Production* is the process of creating either commodities or services to satisfy desires. *Production* is the creation of the utilities—form, time, place, and ownership—all of which are embodied in commodities or services. In pioneer days the settler, with the help of the members of his family, made most of the articles used in the home. He made tables, beds, and the stools used for chairs. He used the simplest tools—a saw, ax, hammer, and a carpenter's square. His wife, on the other hand, spun and wove cloth for clothing, picked wild berries which she either canned or dried, and took care of the family garden. This simple form of production characterized the pioneer and prevailed in different forms in many parts of the world at certain stages of development.

B. The Coming of Steam Power. During the period known as the time of *home industry*, cloth had been spun and woven in the cottage. In 1769, when James Watt applied for his first patent for improvements on steam engines, the great Industrial Revolution began in England. Men were drawn away from the home industries and employed in the factories where the spinning and weaving machines were located. Great industries developed. This was the beginning of the *machine age*, the beginning of the age of *capitalism* and the roundabout method of production, or the individual exchange system of production.[1] The *machine age*, then, means the displacement of simple hand tools, or the handicraft method, by steam-driven or electric machines by means of which the amount of goods produced can be greatly increased.

[1]Simons, A. M., *Social Forces in American History*, Chapters 18 and 21.



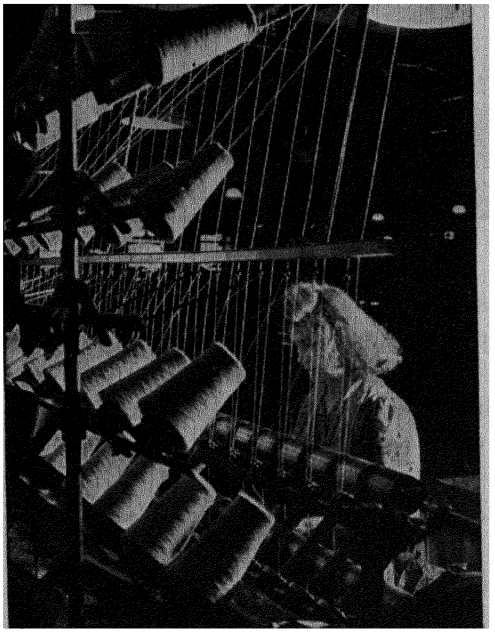
Farm Machinery—Capital Goods *Courtesy J. I. Case Company, Racine, Wiscon*

In this period, also, division of labor was introduced; each man doing only a small part of producing a good. For example, in the handicraft days the cobbler often went from house to house to get work, and made a whole pair of shoes by himself. As a craftsman, he was responsible for turning out a complete product. In a shoe factory, today, one man with a machine cuts the tops of the shoes from a piece of leather, another man cuts the pieces for the soles or heels, and still others sew the tops together and attach them to the soles; then the heels are fastened onto the shoes and the whole is dyed and properly shined.

C. Modern Production. When the machine age is spoken of as an *age of capitalism* it adds another idea. It was pointed out in a previous chapter that *capital* is material goods produced by human effort and used to aid in further production; that is, also, exactly what a machine is. To be sure, the old-fashioned spinning wheel aided in production, but it had to be operated by hand. A woman could spin all day and still have but little yarn at the end of the day. The spinning wheel was a tool. There is a difference between tools and machines; a tool is movable while the large power-driven machines must be stationary. Moreover, the large machines in the factories are run by power and can spin many hundreds of threads at the same time, instead of only one thread as was done with the

spinning wheel. These large machines have now been used in factories for many years, and through improvements are growing more productive continuously. Such machines are called *productive goods* or *capital goods.*

D. Capitalist Society. *Capitalist society* may be defined as the neral use of capital embodied in machines to aid in production. In the handicraft stage, the tools were owned usually by the master workman and were used only by the owner or by his apprentices. Under the capitalist system the factories and machines belong to the capitalist, or enterprisers who have invested their money in them, rather than to the workmen who run the machines.



Harold M. Lambert Photograph

Stationary Spinning Machines—Productive Goods

It is interesting to note the part the railroads, for example, play in capitalist society. *Production* means the creation of form, time, place, and ownership utilities. In order to create a place utility, a transportation system is necessary. Consequently, much capital has been invested in the great railroads which are a part of the machinery necessary to carry on the productive process.

E. Roundabout Method. The term *roundabout method* of production is sometimes applied to modern production methods because, in order to produce a desired good, machinery used in its manufacture (capital goods or production goods) must first be produced. After the equipment is produced and installed, produc-

Railroads Important Factors in Production

tion can begin on the consumption good, the good we want to consume. For example, instead of going to work and making a chair with tools only, we first make machines to aid in producing the chair.

F. Individual Exchange. An individual exchange system is a society in which the individual is a part of the system of produc-

Farmer Raises Corn for Individual Exchange *Courtesy Caterpillar Tractor Company, Peoria,*

tion: that is, he does not produce for the purpose of using for himself the good he is producing, but he produces goods which may be exchanged in the market. For example, a man working in a factory in which men's sweaters are made will perhaps buy one sweater a year. All the other sweaters made in the factory will go into the market to be exchanged. The sweater maker, however, will need hats, gloves, suits of clothes, and various other articles which are made by workmen in other factories.

This individual exchange system of production is characterized by ownership of private property, freedom of contract, division of labor, and individual initiative. These terms are easily explained. *Private property* is property belonging to individuals instead of to the state. *Freedom of contract* is the right of an individual to make an agreement that can be enforced by the state. *Division of labor* may take four forms: (1) there may be division of labor according to processes as described in the shoe factory, in which each man performs a small part of the entire process of making a shoe; (2) or it may be territorial division, where one part of a country grows cot-

Corn Field

Courtesy H. Armstrong Roberts

ton, as in our Southern States, and another section grows corn, as in Iowa and Illinois; or where one country grows coffee as in Brazil, or sugar cane as in Hawaii; (3) or there may be a division of labor according to occupation: one man is a plumber, another a ditch digger, and another a bank clerk; (4) still another form of specialization is that provided by persons who separate into groups of productive factors, as when one group provides labor, another capital, another land, and another management. This last is known as *functional specialization. Individual initiative* means that there is an opportunity for each individual to engage in any form of economic activity he desires, provided it does not injuriously affect others.

KEY POINTS IN UNIT 1

1. Production defined: *production* is the process of creating utilities, embodied either in commodities or services, to satisfy desires.

2. We are living in a machine age of capitalism and roundabout methods of production.

3. By *machine age* we mean an age when consumption goods are produced by power-driven machines instead of by simple tools and hand-industry methods.

4. *Capital* means material goods produced by human effort and used to aid in further production.

5. By *roundabout method* we mean indirect method of production by machines rather than by the direct method of hand industry as practiced by Robinson Crusoe.

6. Important characteristics of individual exchange are: ownership of private property, freedom of contract, division of labor, and individual initiative.

Unit 2. National Resources Necessary for Production

A. Resources Analyzed.
B. Extent of Resources:
   1. Land as a Resource.
   2. Capital as a Resource.
   3. Man Power as a Resource.

A. Resources Analyzed. There are four factors necessary in production and these are our national resources: natural resources, or land and all that accompanies it; men who will provide the physical and mental energy; capital that has been created and saved to aid in production; and the management element, or men who organize industry.

The organized economic activity of America consists in providing a living for about 133,000,000 people. This means that the farmers are engaged in the production of food and other raw materials, miners are digging coal and minerals, industrial workers in factories are converting raw materials into finished products, or commodities, while great numbers of wholesale and retail men, in co-operation with men who control various transportation systems, are playing a prominent part in the transfer of the materials and consumption goods from the producers to the consumers. All of these workers, together with many others engaged in numerous tasks, are carrying on our vast national economic system, and are a part of our national resources.

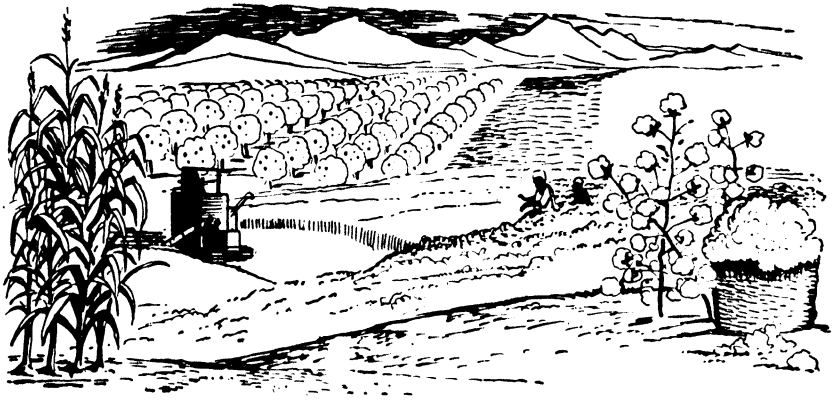
Approaching this subject from still another viewpoint, we can say the whole productive power of a nation depends on its resources; therefore, the greatness of a nation rests on its resources.

The resources classified as the concrete national resources are: first, the land with its forests and all the physical conditions that surround them, such as climate of considerable range, open land with no insurmountable mountains, good harbors, many lakes, and large streams for navigation; second, the capital goods that are the

result of construction by man—factories, dams, and machinery. All these taken as a whole make up the nation's physical resources.

Man power, with all the skills and managerial ability men possess, is the greatest resource of all in any country. The trained workmen, skilled technicians, experienced farmers, and industrial managers are a nation's most necessary resource. Emphasis must be laid on the characteristics of the man power of a nation when judging a country's economic strength.

B. Extent of Resources. The United States is rich in natural resources. It is well supplied with land for raising crops and grazing animals, and with forests or wood lots.



Land a Natural Resource

1. Land as a Resource. The climate and soil of the United States will allow the growth of all crops except those of a purely tropical nature. The country is provided with practically all kinds of minerals that are necessary in peacetime and most of those required in wartime. We have ample supplies of coal for fuel and generating power, also large supplies of water power. Bounded by an ocean on both the east and the west, the country is well supplied with such fish as cod and salmon. Our dependence on outside countries for resources is small, with 43 per cent of all imports consisting of tropical products and semitropical products such as cane sugar; 6 per cent to 7 per cent of our imports are minerals. Some of the products imported can be produced in this country, for example, sugar, but

the greater productivity of American labor and management in other industries makes it more advantageous to use our labor for the production of other products and to import much of our sugar. The land, or our natural resources, is relatively fixed in character in the long run. Wheat farming is still carried on where it was carried on

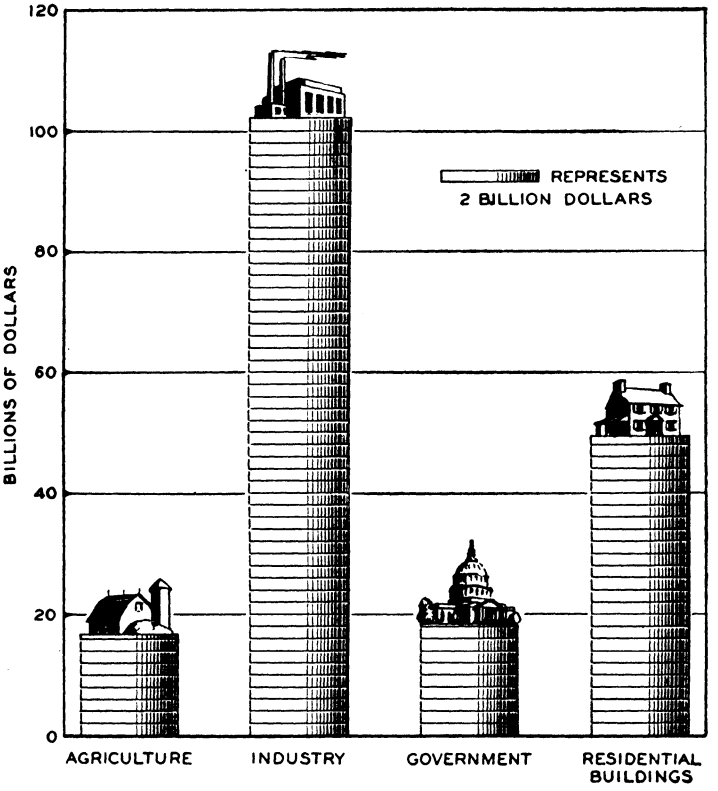


Chart VI. Value of Buildings and Equipment (1935)

fifty years ago. The coal fields are, likewise, practically where they were when coal was first discovered in this country.

2. *Capital as a Resource.* The capital resource of a country includes all the national resources developed by men; that is, the buildings and machinery used in all forms of production, such as manufacturing, mining, agriculture, trade, transportation, service industries, public utilities, and residential buildings. These resources

are the capital factors made by man's utilization of natural resources, and are short-run; that is, they usually remain but a comparatively short time in a certain locality. For example, the manufacture of cotton textiles was largely carried on in New England in early days, but in recent years a large part of this industry has been

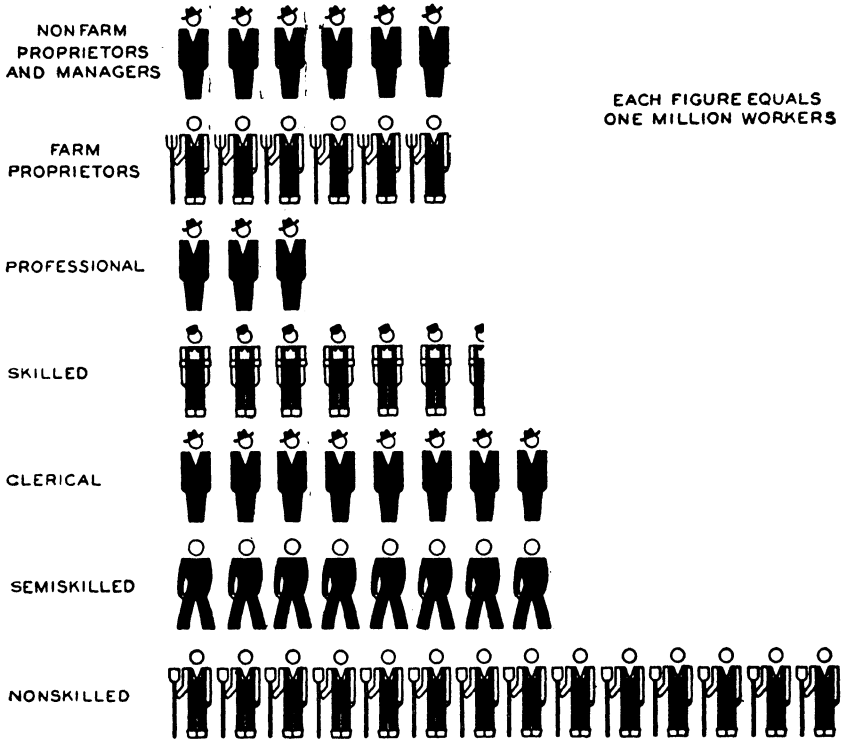


Chart VII. Gainful Workers According to Skill (Fifteenth Census of the United States, 1930)

moved to the Piedmont Region of the South, where excellent water power and cheap labor can be secured. Excluding land and labor, the whole productive equipment of our country, in 1935, was estimated as valued at $190,000,000,000. (See Chart VI.)

3. Man Power as a Resource. Man power, which in many ways is the most important of all the resources of a nation, includes not only the vast number of men and women making up the mass of workers but also those engaged in managerial positions. The mil-

lions of workers, including farmers and artisans, teachers and miners, skilled and unskilled, all go to make up those who provide physical and mental energy for the industries of the country. They are not only the producers of certain commodities attempting to satisfy the desires of the people, but are also the consumers. The available man power given in the occupational census of 1930 was 48,829,920 persons or 39.8 per cent of the population. These figures deal only with those gainfully employed (those who bring in a money income), and should not be considered precise because with those actually employed it may include some temporarily unemployed but nevertheless available persons.

The question of the degree of skill that is possessed by the available man power of the United States is one that cannot be answered with any degree of accuracy. No sufficient studies of the matter have been made. Those presented in Chart VII are based on the 1930 census of the United States.

Skill must not be confused with *technology*. The latter may be defined as the knowledge of ways to apply man power to physical resources for meeting human wants. It is the result of generations of trial and error, of eliminating and selecting. *Skill*, on the other hand, means a developed or acquired ability to do a certain work. Personal skill alone does not assure productivity. The Indian had the same natural resources that we possess and he had a great deal of skill, but he had few techniques and, as a result, made little progress. Technology plays a large part as a resource in the United States and is largely responsible for our great production, including our rapid transportation.

KEY POINTS IN UNIT 2

1. Four factors necessary in production are: land, men, capital, and the management element.

2. The United States is rich in these four factors, which make up our national resources.

3. In addition to the fundamental natural or physical resources of land, and the resources of capital, the economic strength of any country

depends largely upon its man power, with all the skills and managerial ability men possess.

4. The capital resources of a country are those developed by men. These resources include buildings and machinery used in all forms of production.

5. Personal skill alone does not assure productivity. The American Indian had the same natural resources that we possess today, and he also had great skill, but he had few techniques and consequently made little economic progress.

6. Technology now plays a large part as a resource in the United States and to a great extent is responsible for our great production of commodities and for our rapid transportation.

Unit 3. Principle of Diminishing Returns

A. Diminishing Returns Defined.
B. Corollaries of the Principle of Diminishing Returns:
   1. Least Cost Combination.
   2. Highest Surplus or Profit Combination.
   3. Variable Proportions Combination.
C. Diminishing Returns Analyzed:
   1. Table and Diagram.
   2. Use of Factors of Production Explained.
   3. Total Output.
   4. Average Output per Unit of Service of Variable Factors.
   5. Marginal Output.
   6. Method of Securing Numbers in Columns.
D. Diminishing Returns and Diminishing Productivity:
   1. The Monetary Side.
   2. Diminishing Productivity and Urban Lands.
   3. Diminishing Returns and Increasing Costs.

A. Diminishing Returns Defined. So far in our discussions, only two principles that approach laws in the field of economics have been stated. One is the principle of diminishing utility leading to marginal utility, which plays its role on the demand side of the market. The other economic principle which may be correctly called a *law* is the principle of *diminishing returns.*

The definition of the principle of diminishing returns may be stated as follows: If, in the process of production, one or more of the

factors—land, labor, or capital—should be held constant and the other or others increased, for a time the total output of the product, and even the average output per variable factor, will increase; but after a certain point the average output per variable factor will begin to fall off. The point of maximum average output is called the *point of diminishing returns*. Up to this point returns are increasing and the average is continually increasing. Beyond this point returns are diminishing and the average returns are falling off at each step. This principle or law is concerned with physical output only, but it is the basis for costs.

The principle of marginal returns was discovered more than one hundred years ago in connection with agriculture, then further study showed that the principle of diminishing returns applies to other industries as well as agriculture, and this law became important to the manufacturer as well as the miner and forester. Moreover, the principle of diminishing returns was found effective on the supply side of the market, determining the element of scarcity.

B. Corollaries of the Principle of Diminishing Returns. In a study of the principle of *diminishing returns*, some consideration should be given to the different combinations of certain productive agents. This principle has three combinations which may be called *corollaries*. These involve *monetary units;* that is, they involve money values.

1. Least Cost Combination. The first of these corollaries is *least cost combination*, which means combining the factors of production in such a way that the lowest unit cost is secured. This corollary is illustrated in Table I, where the average cost per unit of output is shown in column (10) and the least average cost is $0.3529.

2. Highest Surplus or Profit Combination. The second corollary based upon the principle of diminishing returns is the *highest surplus or profit combination*. This means finding the combination of the factors of production that will give the largest profit, or the largest difference between the total cost and the total selling price. Column (13) of Table I shows profits received under varying conditions. The highest profit combination yields a profit of $22+.

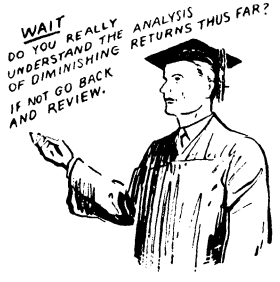
3. Variable Proportions Combination. Finally, there is a corollary of *variable proportions combination*. This means combining the factors of

production in various ways to secure the same result. As an illustration, shortly after the close of World War I, immigration laws were applied more severely, especially to immigrants coming from the south and southwest of Europe, places that had been the source of cheap labor for America. American farm boys, attracted by better wages in the city, left the farms; and, finding that cheap American labor could not be secured, the American farmer turned to the increased use of machinery. In other words, human labor having become expensive, he secured an output as large as before by use of capital embodied in machines which lasted for years and, in the long run, lowered his costs of production. However, in China, where labor is cheap, machinery would probably not be substituted for manual labor. This corollary involves many important decisions that the enterpriser must make in industry.

C. Diminishing Returns Analyzed. The corollaries just discussed are concerned with monetary units, but the combinations in which they are used are based on physical output represented in the principle of diminishing returns.

Farm Machinery—Substitute for Man Power *Courtesy J. I. Case Company, Racine, Wisc*

1. Table I. In order to study the possibilities for profit in a business a table can be developed which shows the facts of diminishing returns as they relate to that particular enterprise. Table I is such a table and a discussion of it will give facts on how to make one and how to use it. Assume that a farmer is trying to decide what to plant on a certain acre of ground. He can think of 8 possibilities—represented by the 8 lines of the table—each requiring a different amount of labor and machinery. For purposes of this illustration, his expenses are $10 per day (unit) (shown in column (7)). The first line shows that if he plants a crop and gives it only one day of service he will harvest a total output of only 20 bushels. The second line shows that if he plants a crop and gives it two days' service he will harvest 52 bushels, an average of 26 bushels for one day of service instead of only 20 as in the first line. The crop represented by the bottom line requires eight days of service for a harvest of 192 bushels. The left-hand side of the table is labeled *Physical Output* and has to do with the amount produced. The right-hand side is labeled *Monetary Units* and gives the values of costs, selling price, profits, loss—all in dollars and cents. Note that the table illustrates diminishing returns.



2. Use of Factors of Production Explained. Explanation of this table will be rather detailed, since much of the later discussion is based on a clear understanding of those terms and their application. Column (1) of the table represents the *constant factor.* According to the definition of diminishing returns, one of the factors of production must be held constant; otherwise it is impossible to find out how much the product is changed by the variable factor. In this case land is held constant. Each item in column (1) means that one acre of land is being considered. Column (2) is headed *Units of Service of Variable Factors,* in this case labor and capital being the variable factors. It is assumed that one unit is one day of service of men, or *labor,* with some kind of farm machine representing *capital.* The first line shows that labor and capital, the *variable factors,* will work one day on one acre. This is shown by *1* at the top of column (2).

TABLE I—DIMINISHING RETURNS

PHYSICAL OUTPUT					MONETARY UNITS							
Constant Factor (Land)	Units of Service of Variable Factors (Capital and Labor)	Total Output	Average Output per Unit of Service of Variable Factors	Marginal Output Due to Last Added Unit of Variable Factors	Rent on Constant Factor (Land)	Cost per Unit of Service of Variable Factors	Total Cost of Services of Variable Factors (2)×(7)=(8)*	Total Cost (6)+(8)=(9)	Average Cost per Unit of Output (9)÷(3)=(10)	Value of Marginal Output at .50† (5)×.50=(11)	Total Selling Price of Output (3)×.50=(12)	Profit or Loss (12)−(9) =(13)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1	1	20	20	0	$8	$10	$10	$18	$0.90	$ 0	$10	$−8
1	2	52	26	32	8	10	20	28	.538	16	26	−2
1	3	90	30	38	8	10	30	38	.42	19	45	7
1	4	136	34‡	46	8	10	40	48	.3529§	23	68	20
1	5	160	32	24	8	10	50	58	.36	12	80	22−
1	6	180	30	20	8	10	60	68	.37	10	90	22+‖
1	7	196	28	16	8	10	70	78	.40	8	98	20
1	8	192	24	−4	8	10	80	88	.46	−2	96	8

Important numbers spoken of in discussion have been set off by horizontal lines in the table. There are slight differences in cents in column (13) as column (10) has not been carried out to full decimals.

*These numbers refer to the column numbers in this table.

†Assume value of each unit of output is $0.50.

‡Point of diminishing returns.

§Least cost combination.

‖Greatest profit combination.

The number *2* in this column represents 2 days of service of a man with a machine, and the *3* represents 3 days of service, and so on. Note that each line in this column shows an increase.

3. Total Output. According to our definition of diminishing returns, the total output will increase for a time. Now study column (3). This column is headed *Total Output.* With an increase of labor and capital as shown in column (2), the total output increases continuously up to 196 bushels, although not the same increase for each line. At 196 the total output begins to fall off. All good things come to an end and land cannot be forced to increase its output indefinitely. There comes a time when the increase in production will stop.

4. Average Output per Unit of Service of Variable Factors. This average output is found by dividing the total output in column (3) by the number of units of service shown in column (2). Example, for the third line, $90 \div 3 = 30$, shown in the third line of column (4). According to our definition of diminishing returns, the average output per unit of service of variable factors increases for a time. This is seen in column (4), until a maximum average is reached. The maximum in this case is *34*, which has been set off by horizontal lines. This is the point of diminishing returns, up to which the average output per unit of service of variable factors has been getting larger. Decreasing from *34* in the fourth line to *24* in the last line, the average is getting smaller for each line; this indicates diminishing returns. This is important to the business man for it is a warning that his costs are changing.

5. Marginal Output. Column (5) is headed *Marginal Output Due to Last Added Unit of Variable Factors.* Going back to columns (1) and (2) and starting with the first number in each column, the *1* in column (1) represents one unit of land, the *1* in column (2) represents one unit of service of labor and capital. If these operate together, there is an output of 20 bushels as shown in column (3). By using two units of service (labor and capital) shown in column (2) in the second line, the total output is increased to *52* bushels, column (3). The difference between *20*, the preceding total, and *52*, the new total, is *32*. This is shown on the same line (second) in column (5), and it is the *marginal output* due to the last added unit of service of labor and capital. In the third line, one more unit of the variable

factor is used, represented by *3* in column (2), and the total output is *90*. The difference between the preceding total output, *52*, and the new total output of *90* is *38*, which is shown in column (5) and is the marginal output due to adding the new unit of service of the variable factors which brought that factor up to *3*, and so on.

6. Method of Securing Numbers in Columns. Summarizing, in the first column, one acre of land, is an assumed number. The only requirement is that each of these numbers must be the same, in this case, *1* to indicate that the quantity of land is being held constant. The numbers in column (2) are also assumed. The only thing required in column (2) is that the change in amount shall be the same each time. This table has been changed by one unit each time but it might have been changed by 2 units and read *1*, *3*, *5*, *7*, and so on. If this were worked out, as it can be on experimental farms, column (3) would be the actual measure of the output or product from each separate acre. Amounts in column (4) are found by dividing the output in column (3) by units of service in column (2) and thus is found the average amount produced per day of services of the variable factors. Finally, column (5) is found by subtracting each total output, beginning with *20* in column (3), from the total output that follows it, securing in that way the amount added to the total output by the addition of one unit of the variable factor.

D. Diminishing Returns and Diminishing Productivity. Turning now to the monetary side of the table, the problems here are sometimes called *diminishing productivity* by economists.

1. The Monetary Side. Suppose that an acre of land costs the user $8 per year for rent; column (6) shows this rent. This column represents the fixed or *constant cost*, also known as *overhead cost*. It means that no matter how many units of a product are produced on an acre, the cost of land as a factor of production will be $8. We have assumed that to hire the services of a man with some type of farm machinery costs $10 per day. This is paid for the services of labor and capital, and as the number of units varies, the total cost at $10 per unit varies and so this is called *variable cost*. As the cost of variable factors increases, the total output cost will increase up to a certain point. Column (7) then presents the cost per unit of one day of service of labor and capital; column (8), the total cost of the

variable factors for each combination. Amounts in column (8) are found by multiplying those in column (2) by those in column (7). Column (9) shows the total cost of the output for each combination (each line); this includes *land*, *labor*, and *capital*, and is found by adding amounts in column (6) to those in column (8).

It is possible to find the *average cost* of a unit of output for each combination by dividing the total cost by the total output. That is, average costs in column (10) are found by dividing the amounts in column (9) by those in column (3). At one point in column (10) the

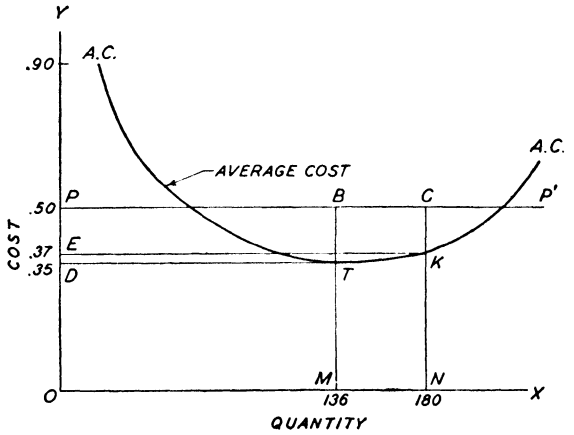


Fig. 13. Relation of Diminishing Returns to Cost and Profit

least cost combination is shown. As previously pointed out, in this case it is 35 cents. This point is shown in the diagram, Fig. 13.

Assuming the product sells for 50 cents per bushel, we find out how much the marginal output sells for by multiplying amounts in the marginal output column (5) by 50 cents. This gives the amount shown in column (11). By multiplying the total output for each combination, shown in column (3), by the selling price of 50 cents per unit, we find the total selling price shown in column (12). When we subtract amounts in column (9), total cost, from those in column (12), total selling price, we find the net profit or loss shown in column (13). In this column the highest profit, shown as \$22+, is a result of the combination where the *marginal output* of *20* sells for \$10, or just enough to cover its cost. This is the sixth combination (sixth

line); the marginal output which cost \$10 (the cost of the additional unit of service when 5 units were raised to 6 in column (2)) is sold for \$10, and the total net profit is \$22+. It would be the sixth combination that the farmer would choose.

This table would represent just as well the possibilities for profit in any other business. In other cases, a firm would continue to produce up to the point of greatest profit, \$22+. Then it can be stated, as a general principle that, as long as the market will take his goods, the enterpriser will continue to produce, up to the point where the cost of his marginal output is just covered by the amount for which the marginal product will sell.

2. Diminishing Productivity and Urban Lands. The principle of *diminishing returns* has been discussed in connection with agriculture

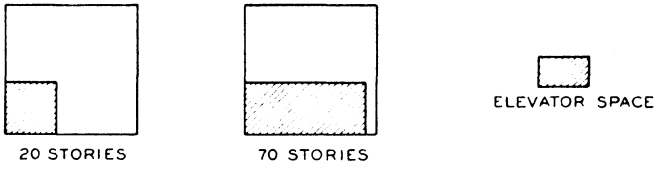


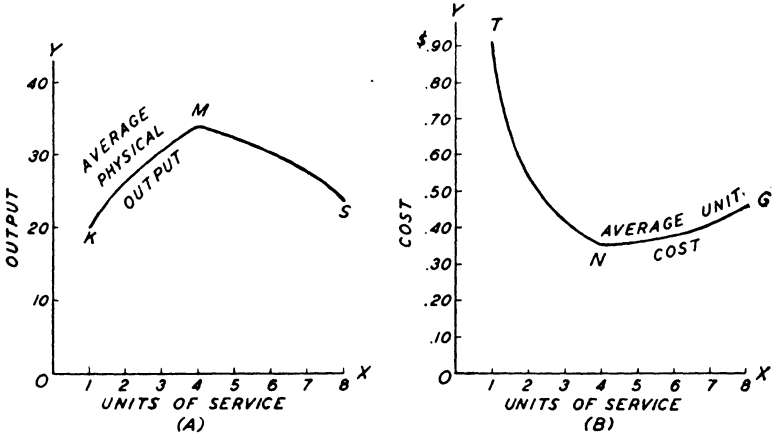
Chart VIII. Diminishing Returns on an Urban Property Due to Necessarily Increased Elevator Space

where fertility is a predominant element. The same principle can be shown to be applicable to urban land where *location* is most important. Assume two plots of land, each fifty by fifty feet, lying side by side on Manhattan Island. On the first a twenty-story building is erected; on the second, a seventy-story building. The buildings consist of labor and capital of varying quantities applied to land of the same location and size. These are assumed to be office buildings, hence a certain amount of space must be used for elevators, as office-building tenants expect to reach or leave their offices in about fifteen minutes. To accommodate the first building, considerably less space will be devoted to elevators than in the case of the second, as shown in Chart VIII.

The business man may say it does not pay to build beyond a certain height; the economist will say the same thing in a different way when he says that the law of diminishing returns has set in. This means that when more labor and capital are used continually in

building higher and higher office buildings, the floor space that can be used for rentals will be cut down by the amount of space which must be used for elevators, so that finally a point is reached where it will be best to stop adding any more of the variable factors, *labor* and *capital*, to the constant factor, *land*. This is the point of *diminishing returns*.

3. Diminishing Returns and Increasing Costs. Perhaps the most important factor in this whole discussion is to get the fact clearly in



(*A*) Physical Output: *K* to *M*, increasing physical output; *M*, point of diminishing returns; *MS*, period of decreasing physical returns. (*B*) Monetary Units: *TN*, decreasing costs; *N*, least cost combination; *NG*, increasing average costs

Fig. 14. Chart of Diminishing Returns

mind that during the period of increasing returns on the physical output side, Table I, column (4), there is on the monetary side a corresponding period of decreasing average costs, Table I, column (10). On the physical side, the point of diminishing returns is shown as *34* in column (4), and the corresponding point of least cost combination is shown as 35 cents in column (10). Beyond these points, diminishing returns and increasing cost set in at the same time. Some economists say large-scale manufacturing industries are usually industries of decreasing costs, but one must not fail to understand that such industries may come to the point of diminishing returns and therefore increasing costs. In the same way certain industries such as farming, mining, and forestry are spoken of as

industries of increasing costs. These industries, it is true, show fairly early a tendency toward diminishing returns and therefore toward increasing costs. Columns (4) and (10), Table I, are shown as graphs in Fig. 14 at (*A*) and (*B*), respectively.

We conclude then that as physical output increases, average unit costs fall, and when physical output decreases, average costs increase.

In closing this discussion of diminishing returns and increasing costs, Fig. 13 in connection with Table I should be explained. The line *OX* represents physical output, and the line *OY* represents monetary units. In Fig. 13, the average cost is called *total average cost* because it combines the average fixed cost and the average variable cost. The curve *TAC*, which stands for total average cost, is the graph of column (10). The horizontal line *PP'* represents the assumed price of 50 cents per unit. *T* on *TAC* is the least cost, or 35 cents. The quantity produced at 35 cents per unit was 136, shown in column (3). Now the rectangle *OMTD* represents the total cost if the enterpriser stopped producing at 136 units, shown as \$48 in column (9). If he sells at 50 cents per unit, his whole selling price is \$68, column (12), rectangle *OMBP*, and his net profit, \$20, column (13), is represented by rectangle *DTBP*. If, however, he continues to produce until his product is 180 units at a cost of 37 cents per unit, his total cost is rectangle *ONKE*, his total selling price is *ONCP*, and his net profit is *EKCP*, shown in column (13) as being \$22+. This is the point to which he should carry his production, as it is the point where the cost of the marginal product, 20 units in column (5), costing \$10 to produce, see column (7), is just covered by what it sells for, \$10 in column (11). This then is the highest profit combination, and \$22 is his highest profit.

KEY POINTS IN UNIT 3

1. Principle of diminishing returns defined: if in the process of production one or more of the factors—land, labor, or capital—should be held constant and the other or others varied, for a time the total output of the product, and even the average output per variable factor, will increase; but after a certain point the average output per variable factor will begin to fall off. The point of maximum average output is called the *point of diminishing returns.*

2. Three important combinations of productive and monetary units involved in the principle of diminishing returns are: least-cost combination, highest surplus or profit combination, and variable proportion combination.

3. The principle of diminishing returns may be illustrated by the use of elevators in a building several stories in height. If the loss involved in using space for elevators and in maintaining elevator service is kept in proper proportion to income from rents, the return on the investment in land and building is satisfactory; but if the building is too high the cost for elevators would be so great that the investment would be unprofitable because of increased cost and *diminishing returns.*

Unit 4. Types of Production

A. Raw Materials:
   1. Meaning of Raw Material.
   2. Increasing Cost.
   3. Location of Extractive Industries.

B. Manufacturing as a Type of Activity in Production:
   1. Meaning of Manufacturing.
   2. Localization of Manufacturing.

A. Raw Materials. In the beginning stage, all consumer goods are raw material: iron ore used in making steel; wheat used for making bread; cotton for shirts and other clothing; leather for shoes; mahogany for writing desks; wood pulp for making paper; wool for sweaters; and crude oil for gasoline. The industries which provide raw materials are known as *extractive industries.*

1. Meaning of Raw Material. Raw material is secured by cultivation of the surface of the earth, by digging into mines, by cutting forest trees, and raising sheep for wool or meat. All of these are old industries, existing to a certain extent among even primitive people and necessary as the first step in the making of any commodity.

2. Increasing Cost. Since all these industries soon come under the principle of diminishing returns, they have been characterized by economists as usually being *increasing cost industries*, although at the beginning they give increasing returns, with decreasing costs.

This emphasizes the fact that in this kind of industry each unit is usually produced with greater effort and therefore with greater cost than the preceding unit. As an example of this, take bituminous coal. A shaft may be sunk where the coal is in a vein four feet thick. Gradually, as the vein is worked farther and farther away from the shaft, the vein may grow thinner. This will mean greater difficulty in getting out each ton of coal, and also, since it is farther from the shaft, it will have to be carried a greater distance before it is brought to the ground level. As the mine is worked farther into the ground, each ton will be produced at a greater unit cost.

Assume next that a man cultivates a given piece of land to produce wheat. As he uses the land year after year, it begins to produce less and less wheat. At first he produced 20 bushels to the acre; later he produced only 12 bushels. In order to produce more, he would have to use more and more fertilizer. This would increase the cost per unit bushel of wheat and he would be forced to admit that he was finally working under conditions of diminishing returns or increasing costs.

Another example, when the native growth of timber has been cut off, if no arrangements have been made for reforestation, the

Lumbering—Extractive Industry *Courtesy Caterpillar Tractor Company, Peoria,*

cost of securing more lumber will be increased greatly. That is the reason that under regulations in some states a tree may not be cut, unless another tree is planted to replace it. In certain cases, wood lots that comply with this regulation are free from taxation. It can be said in conclusion that even in extractive industries there may be a stage of decreasing costs at the beginning but it would change early to diminishing returns and increasing costs. This would give a curve similar to the one shown in Fig. 13.

3. Location of Extractive Industries. The largest concentration of agricultural population in the United States is in the southern areas. The second largest concentration is in the Middle Atlantic and northeastern areas where there is intensive farming in truck gardening, dairy farming, and poultry raising for the near-by city markets.

While the country was predominantly agricultural, the location of land suitable for crops and pasturage determined largely the location of those industries. The great wheat areas today are in the Dakotas, Montana, Kansas, and Oklahoma; the corn-belt areas are found largely in Iowa, Illinois, Minnesota, Indiana, Ohio, Nebraska, and Missouri; the cotton areas are in Texas, Arkansas, Mississippi, Alabama, Georgia, and South Carolina. Over 10,482,000 persons, or 21 per cent of all who are gainfully employed, are engaged in agriculture.

In the same way, those engaged in mining must be employed in those localities where the natural resources such as coal, iron ore, and copper, are found. Iron is located in Minnesota, Michigan, Wisconsin, and Alabama; coal in West Virginia, Pennsylvania, Tennessee, Southern Illinois, Iowa, Missouri, Kansas, Colorado, and Montana.

Equally true is the situation in connection with timber in the process of cutting and sawing. The great forest areas remaining are those in the northern states of Washington, Oregon, Minnesota, Wisconsin, and Michigan, and the southern states of Louisiana, Alabama, Georgia, the Carolinas, and Florida. After the initial process, the remainder of the productive process may be carried on in other places. This discussion of raw materials only partially indicates the localization of industry, for it deals only with the sources of the raw materials that must pass on into the manufacturing

process. The *localization of industry* means the tendency to concentrate an industry in a given place.

B. Manufacturing as a Type of Activity in Production. *1. Meaning of Manufacturing.* Originally, the word *manufacturing* meant making something by use of the hands. The word *manufacture* is derived from two Latin words: *manus* meaning *hand* and *facere* meaning *to make*. In the course of time the word manufacturing was applied to the great industries in which raw materials are converted into finished commodities ready to be used by the consumers. Machinery is one of the most important factors in the process of production, and it is usually true of the large-scale or manufacturing industry that the greater the number of units of output produced, the less the cost of producing each unit. Due to the principle of diminishing returns, during a considerable part of the life of a manufacturing industry, new inventions, technological improvements, and more up-to-date machinery enable the management to reduce the unit cost of the product while the output itself is increasing in quantity. In a competitive society, one of the chief concerns of an enterpriser is how to reduce his costs below those of his competitors so that he can undersell them, make a larger profit and perhaps, if he is unscrupulous, eventually eliminate his competitor from the market. Manufacturing, or large-scale industry, may continue longer in the stage of increasing returns, and thus in the stage of decreasing costs, than the extractive industries. But, as in extractive industries, the time will always come when diminishing returns set in and increasing costs begin. Then the total average cost will rise as illustrated by the curve in Fig. 13.

2. Localization of Manufacturing. When considering the localization of manufacturing industries, it is well to remember that their location will be influenced by certain definite factors. One of the most important of these is the easy access of raw materials used in the particular manufacturing process concerned. Products extracted from the soil or mines usually are processed near the origin of the resources themselves. This is especially true if the raw material is perishable or bulky; for example, fresh fruits are canned near the place where they are grown, while if timber is sawed into boards by sawmills located in the forested areas, the waste and saw-

[redacted]ot be transported. Cottonseed oil, cakes, and meal are [redacted]ly manufactured in the cotton-growing areas. Cement, [redacted] bulky, is mostly manufactured near the places where the [redacted]umers need it, as are also building bricks.

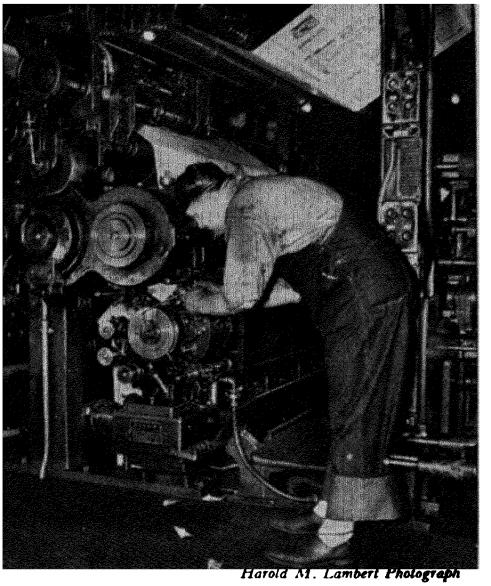
A good deal of manufacturing is carried on somewhere between the source of the raw material and the place where the product is prepared for the consumers. Several steps in the manufacturing process may be necessary and the final step will then probably take place close to the populated centers where the goods are consumed. For example, wool, a raw material, is sheared from sheep on the farm, an extractive industry. As the next step in the process of preparing the wool for the consumers, it is shipped from the farm to mills where it is cleaned, combed, and spun into yarn, and finally woven into cloth. The woolen material then goes to a tailor who makes the cloth into coats, suits, or other garments ready to be worn. This last stage or step in the process takes place usually in

Line for Carrying Oil from Production Center
[redacted]onsumption Center

Courtesy Caterpillar Tractor Company, Peoria, Illinois

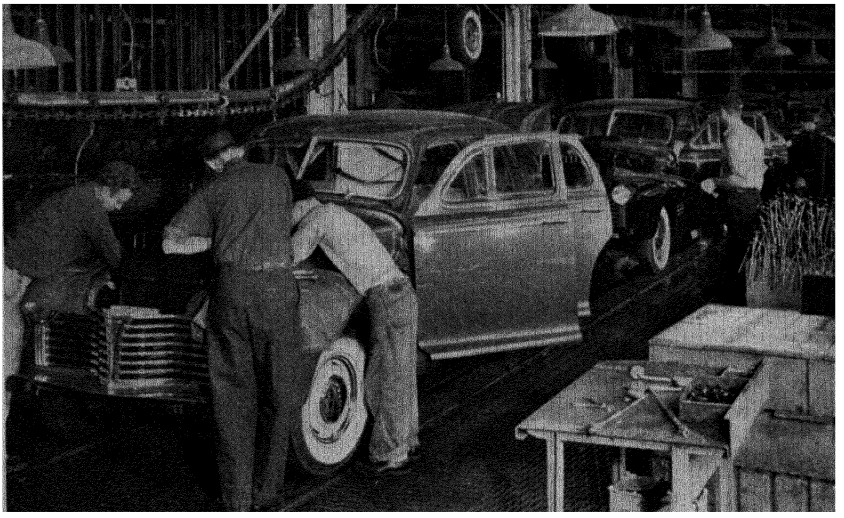
large cities where there is considerable demand on the part of consumers.

Scores of similar illustrations could be given of the series of steps that must be taken from the stage of extraction of the raw material to the completion of the finished article ready for the consumer. Wheat passes through various stages before it is made into flour for bread; cotton, like wool, passes through many stages before it is ready to be made into dresses or other articles of clothing; timber goes through various stages while in the process of being converted into wood pulp used in making paper; leather must be scraped and tanned before it is made into shoes. In the case of petroleum, the refining largely follows the location of the wells, but the refining is sometimes done near the centers of population, as in New Jersey, Pennsylvania, and Illinois near Chicago. Trunk pipe lines carry the oil from the production centers to consumption centers where the demand for oil is greatest.



Newspaper Printing Press

Another example of the converting of raw material into consumer goods is the making of paper from forest products. First, trees suitable for use as wood pulp are cut down in the forest. The wood is usually converted into pulp in mills located near the forests that have furnished the timber. The manufacture of paper from the pulp sometimes takes place in mills located near the pulp mills, though the paper mills are usually located in the large industrial cities. The use of paper for printing and publishing purposes is the next step in the process. The location of these industries may be compared to the



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ɔmobile Industry Centered in Region of
ndant Raw Material and Ample Labor Supply

distribution of the consumers throughout the country. The making of books is more centered in cities than the printing and publishing of newspapers and periodicals.

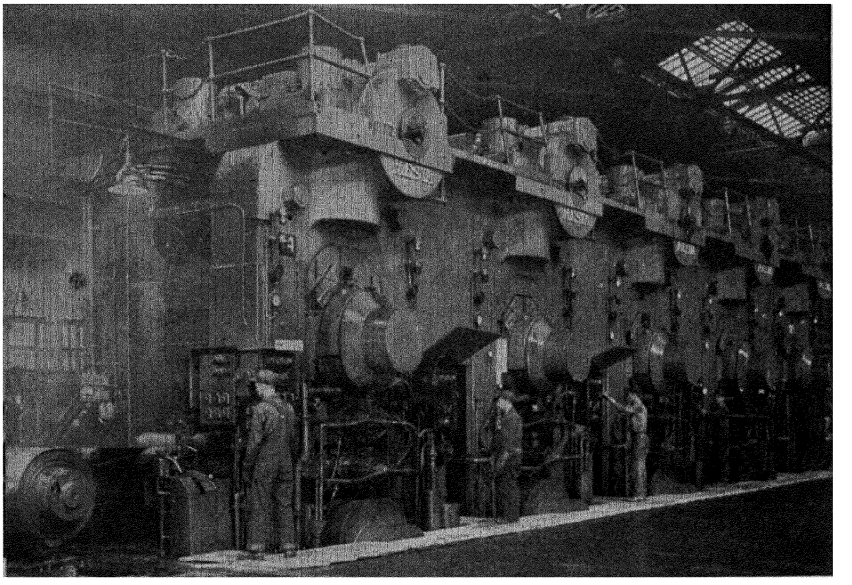
Many other factors may account for the location of an industry. It may have been located in a certain place because of abundant water power, as in the case of the shoe industry in Massachusetts. The furniture industry developed in Michigan because of the extensive supply of timber in that region. When the timber became [illegible]gely depleted, the industry continued because of the great momentum given it in the beginning. The automobile industry, the successor of the carriage-making industry, like the furniture, grew up near the timbered regions of Michigan and has continued there; this was also partly due to the ample supply of labor available in that section of the country.

Another point may be stressed in connection with both the manufacturing and the extractive industries; that is, the tendency, in a large country like ours, for certain industries to shift location. For example, the textile industry in New England has partially moved to the South where there is excellent water power, cheap labor, and easy access to raw cotton. The hosiery industry has also

shown a tendency to move to the South, as has the furniture industry. In extractive industries, lumber jumped from Maine to Michigan, to Wisconsin, to the South, to Pacific Northwest.

It is impossible to omit the iron and steel industry in any discussion of productive processes. This industry accounts for 30 per cent of those gainfully employed in manufactures. Necessarily, the raw material must be secured from the localities in which there is iron ore. Since coal is necessary in the production of iron and steel, the centers of manufacture, especially in the early stages, are located near coal beds. The great regions for blast furnaces are at Pittsburgh, Pennsylvania; South Chicago, Illinois; Gary, Indiana; and Birmingham, Alabama. The products of the blast furnaces pass on to rolling mills, mills for producing stamped and pressed steel products, and all the various plants for turning out machinery, engines, structural steel, and the great mass of special articles made from steel and iron to meet modern consumer needs. Steel, then, represents an industry in which the heavy ore can be brought to mills located near coal fields, or where coal can be transported to mills cheaply, as from southern Illinois to South Chicago. The final processes are then performed near industrial centers that constitute the consumer market for these goods.

Mining Iron, an Extractive Industry
Located near Virginia, Minnesota, the Open Iron Mines Shown Here Are the Largest in the World



Rolling Mill, Gary, Indiana. *Courtesy Carnegie-Illinois Steel Corporation*
ed in Manufacturing Center of the United States

Machinery, usually being large and cumbersome, is manufactured near the place where it is used, its largest manufacturing area being north of the Ohio River and east of the Mississippi. Motor vehicle bodies are manufactured to the greatest extent in the states of Illinois, Indiana, Michigan, Ohio, New York, and Pennsylvania.

Approximately, 11,758,000 persons are normally engaged in manufacturing as a whole, this number representing 24 per cent of all persons gainfully employed. The major part of the manufacturing population is east of a line drawn down the west boundary of Iowa, Missouri, Arkansas, and Louisiana. Of the persons engaged in the various activities, 28 per cent are located close to resources, 48 per cent close to consumers, and 24 per cent may be called footloose; that is, they are engaged in wholesale trade and miscellaneous occupations. The foregoing bears out the statement that, "Wants and resources constitute the two poles of the economic process. It is the function of that process to use the resources in satisfying wants."[2]

[2] *The Structure of American Economy*, p. 22, National Resources Committee.

KEY POINTS IN UNIT 4

1. Two types of production—extractive industries and manufacturing—are discussed in this unit.
2. The extractive industries provide the raw materials which are converted into consumption goods by manufacturing processes.
3. Raw materials include agricultural products such as wheat, cotton, and timber; other raw materials are products of mining and include various ores.
4. In the extractive industries increasing costs may make production unprofitable.
5. Agricultural industries which provide large quantities of raw materials are located in numerous sections of the United States, but are to some extent concentrated in the Southern States, the Middle West, and the Middle Atlantic States.
6. Intensive farming methods practiced in the Middle and North Atlantic States provide garden and dairy supplies for one of the most densely populated areas of the country.

Agricultural Products Provide Various Types of Raw Material for Satisfying Human Wants

Underwood & Unde

7. The word *manufacturing* comes from two Latin words—*manus*, meaning *hand* and *facere* meaning *to do* or *make*. Originally, then, *manufacturing* meant making something by hand, but today the manufacturing processes are carried on principally by machinery.

8. Manufacturing industries are frequently located near the source of supplies of raw materials. This, however, is not always the case; for example, cotton grown in the Southern States is made into textiles in factories located in the New England States, though this condition is gradually changing by the building of manufacturing plants in the South. Similar changes in location of manufacturing plants of other industries are also taking place.

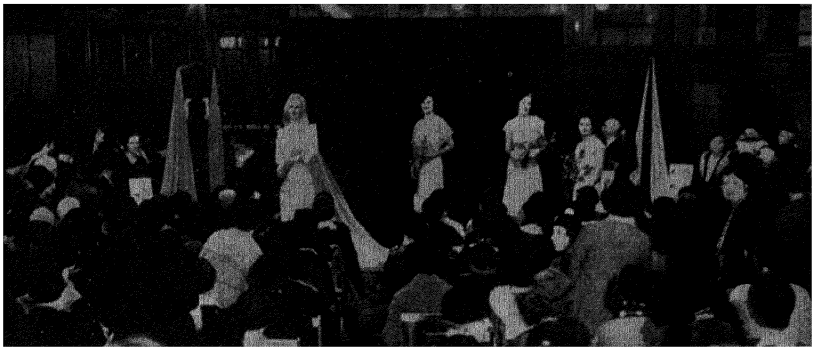
Unit 5. The Organization of Industry

A. The Influences That Weld Industry into a Single National Economy:
   1. The Problem Stated.
   2. Basic Continuities.
   3. Results of Employing a Country's Resources.
   4. Forces Controlling Industry.
   5. Administered Prices.

B. Forms of Administration:
   1. Individual Proprietor.
   2. Partnerships.
   3. Corporations.
   4. Extent of Corporations.

A. The Influences That Weld Industry into a Single National Economy. At the basis of production lies the continuity of human wants. It is because these wants are continuously recurring, and because the methods used to satisfy them also approach some uniformity, that it is possible to organize industry to meet human needs.

1. The Problem Stated. Our discussion began with a survey of the desires consumers have for various commodities to satisfy their wants, pointing out that these desires are the basis of all production. These desires were analyzed and the law of diminishing utility that plays so large a part in determining consumers' wants was studied, with attention to income as an essential in the purchasing of commodities and in determining where consumers' demands will end.



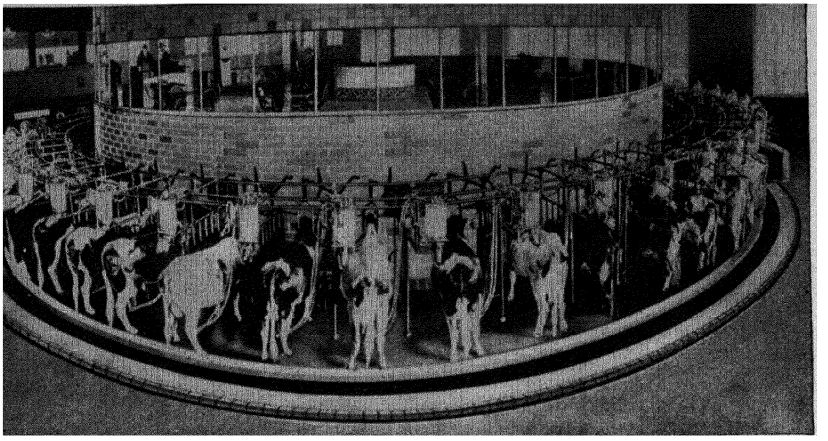
A Fashion Show—Promotion of Secondary Desires *Underwood & Unde*

Before proceeding farther, it is necessary to analyze the organization of industry.

2. Basic Continuities. The farmer plants potatoes because he assumes that there will be a continuity in the desire for potatoes on the part of the ultimate consumer; the producers of women's ready-made clothing begin the manufacture of dresses for the fall trade under the same assumption that women will need and buy more new clothing; the hides from the stockyards are sold to the tanners and pass into the hands of the shoe factories with the almost certain knowledge of the shoemakers that men and women will need more shoes within the coming year and the assumption that they will secure a sufficient income to create an effective demand for these shoes. So much for the first of the basic continuities, that of human desire.

Next comes the continuity based on the techniques or methods necessary to meet these demands for goods. The farmers and manufacturers have their skills and techniques. Occasionally an out-of-date flour mill may be found still producing flour, but this is the exception. Most of the mills with antiquated methods have been abandoned and new techniques are being used. These new techniques cannot be acquired in a few days. The process of making necessary improvements and extensions in an industry is a never-ending process in our form of society. Therefore, this continuing process is vital and fundamental in all organization of business.

3. Results of Employing a Country's Resources. The basic resources of a country's employment consist of: first, its natural resources in-



Underwood & Underwood

y-Go-Round for Washing and Milking Cows

otolactor Shown Here Is 60 Feet in Diameter and Accommodates 50 Cows

cluding land, mines, forests, and water power; second, its man-made resources consisting of factories, machinery, dams, power plants, and railroads; third, comes the man power of a nation, including all its skills and activities; and finally, the directing ability that can bring all these resources into an organization for the purpose of carrying on the production of some commodity that the enterpriser has recognized as being desired by the consumer. In 1935, national production activity used 41,000,000 full-time persons and $365,000,000,000 worth of land, buildings and equipment, which resulted in the production of about $55,000,000,000 in 1935 dollars.

4. Forces Controlling Industry. There are economists who hold that the great force that controls the organization of all industrial activity is the mechanism of the free market. To illustrate how this is assumed to work, suppose that considerable amounts of capital and man power have been put into the manufacture of leather suitcases until so many have been produced that the price of these leather suitcases has fallen. Meanwhile, it can be assumed that there is a shortage of shoes because so much leather has been used for suitcases. This, it is claimed, will cause a rise in the price of shoes, and leather will now move over to shoes, eventually lowering the price of shoes and raising the price of leather suitcases. This is the mech-

anism, some believe, that can control price and output in a freely competitive market.

Others claim that only to a limited extent can the method just mentioned determine the amount brought to market and the price at which the goods can be sold, and that it acts only ineffectively and slowly. Primarily, this is not a discussion of the market, but it deals with some of the influences that aid in setting price and that influence industry to greater production of one commodity rather than another.

5. Administered Prices. A second influence claimed to determine the co-ordination of business is the administrative power in the industry, such as the Board of Directors. For example, suppose there were scores of small steel plants in the United States all competing with each other in the market. It would be claimed by some that a freely competitive market is determining price and quantity. In the steel industry, the amount of capital and the number of employees of a great plant like the United States Steel Corporation are determined largely by the men who administer the industry. The price they set is called an *administered price.* Or it is claimed that price is set in this way by a price leader, the comparatively few other steel producers following the administered price set by United States Steel. There are those who hold that such a high degree of co-ordination leads to much greater efficiency. There is no doubt that large-scale industry has extended the economic role of the private administrator in modern business.

B. Forms of Administration. Before passing on to a more careful discussion of the factors that influence industry, the three principal forms of business organization should be considered.

1. Individual Proprietors. The individual proprietor is represented by the corner groceryman or the shoe cobbler. He controls the entire business and owns most of the capital involved, but may have acquired some on credit. If he fails in his business, he is responsible to those whom he owes to the full extent of whatever he may possess. The farmer is also a good example of this type of proprietor since, as a rule, one man owns a farm and either works it himself or rents it to a tenant.

It may be claimed that one of the advantages of the individual proprietorship is that the proprietor will work harder and be more

careful because probably all of his funds are invested in his business. But, on the other hand, it can be said that such a business, today at least, cannot become of great size because of the great amount of money necessary for a large business and that, as business grows, it becomes more and more complex, and an individual proprietor could no longer look after all the details of the organization as he did formerly, making it necessary to shift many responsibilities to hired employees where the service might not be so efficient.

2. Partnerships. The second form of organization of industry may be called the *partnership.* In this case, two or more persons may unite to do business. This form of business organization may frequently succeed the smaller business establishment of a proprietorship and may be spoken of as a *collective entrepreneurship.* It may come into existence through a single proprietor's finding that he needs more capital. He may take as a partner one who has no particular skill in the business, but who has money to put into the undertaking. In a partnership the persons entering it are bound by an agreement as to the manner of conducting the business; each partner is regarded as representing the partnership and can be held liable for any of its acts, including its losses; in other words, there are unlimited liabilities for each partner. However, the partnership is easy to form and policies can be rather quickly decided upon. If a member dies and no other partner can be secured, the partnership may have to be dissolved or at least its business will be interrupted. One of the advantages of a partnership is that it may combine the capital of several individuals and also their administrative ability and various business talents.

3. Corporations. Today one of the most commonly known forms of business is the corporation. It is created by a charter secured from the state, and is therefore spoken of as a *creature of the state.* It has a perpetual existence. It has an advantage over the partnership in that it can make use of the skill and ability of hundreds of persons and also the capital of thousands of investors.

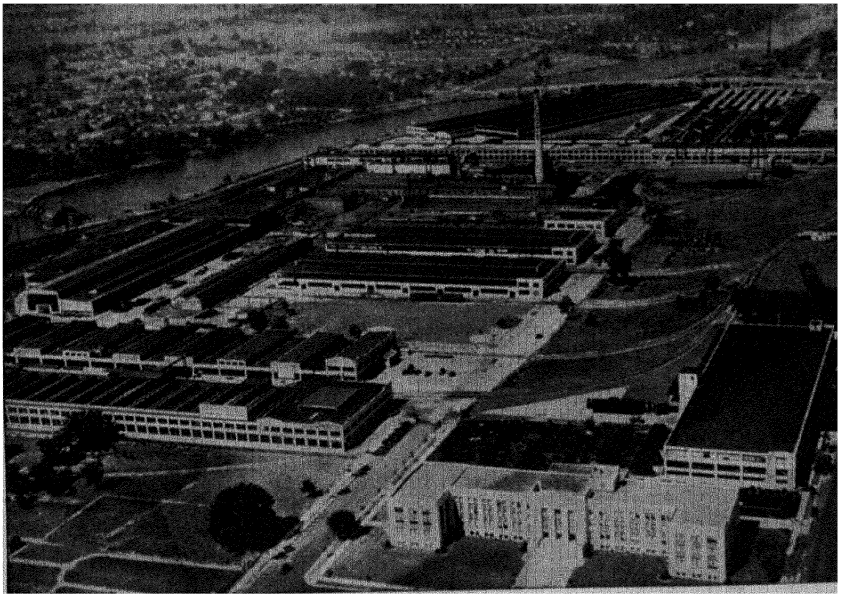
In a corporation the entrepreneurs are the stockholders. Since these are often scattered over the country, the business is conducted by the elected officials. These officials are usually elected by a board of directors which, in turn, has been elected by the stockholders. In

discussing corporations, distinctions must be made between *bondholders* and different types of *stockholders*.

A bondholder is not an owner of the corporation. He is a creditor only. The corporation may want a loan for the purpose of expanding its plant and it may raise this money through selling bonds. The bonds usually run for approximately the length of time that the equipment purchased can be expected to earn or to be productive. Usually a sinking fund is arranged for; that is, certain surplus earnings are placed in a fund which will pay the bond when it comes due. The corporation agrees to pay the amount of the bond on a certain date, usually after a long time, such as 10 to 20 years, with a certain specified rate of interest. The bondholder, therefore, usually has little risk to assume. A bond is of the same character as a promissory note, and if the corporation fails to pay the interest on bonds, it is possible for the bondholders, through a process of foreclosure, to sell the assets of the corporation and thus recover the amount of the bonds and interest, if the assets are not too small.

We can consider briefly three kinds of bonds. First, a common form of bond is the *mortgage bond*. The plant or machinery or other tangible property of the corporation may be pledged as a security

Automobile Factory Belonging to a Corporation *Courtesy of Olds Moto*



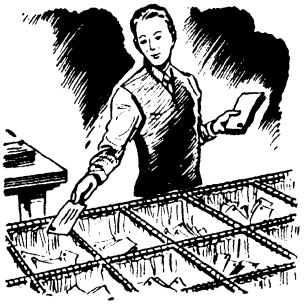
for the payment of the face value of the bond. The second form of bond is the *collateral trust bond.* In this case a corporation that may own a considerable amount of securities of other companies may place these securities in the hands of a bank to act as trustee and issue bonds on this security. However, many companies are so well known, have such excellent reputations for efficiency of management, and have so much good will of the public that they do not need to put up security either in the form of actual property or in the form of intangible property such as the securities of other corporations. They can issue and market their bonds, known as *debenture bonds*, and always find a large number of buyers.

The situation of the common stockholder is entirely different from that of a bondholder. The common stockholder is an owner in the corporation. In place of the bond which the bondholder has, the common stockholder has a certificate. The certificate indicates that, as an owner, the holder has certain rights. After all the expenses and the interest on the bonds have been paid and after the preferred stockholders have received their dividends, the common stockholders have a right to the remainder that has been earned by the corporation. Since they have voting power, these common stockholders usually elect the officers who manage the corporation for them. They are the important entrepreneurs and therefore assume most of the risks. In many corporations, during periods of depression, common stockholders sell their stock and buy bonds, believing that they have protected their income by such a transfer, since the interest on bonds must be paid if there is any surplus over expenses.

Next, consider the preferred stockholder. He also is an owner in the corporation, and his stock certificate specifically says that he will receive dividends amounting to a certain per cent, which shall be paid from the earnings of the company. Dividends are payments made to stockholders from earnings of the corporation. If there are earnings, he will receive his dividends after the bondholders have been paid but before the common stockholders receive anything. This explains the word *preferred*, meaning that he is preferred over the common stockholders. However, if there are not adequate earnings, he receives little or no dividends. Therefore, it can be said that he assumes some risk.

There are certain terms that should be kept in mind in connection with corporations. First, the *par value* of a share of stock means the value stated on the face of the certificate; second, *no-par value stock* is sold at any price it will bring; third, *watered stock* is stock issued in excess of actual assets of the corporation; fourth, *capital stock* of a corporation equals the common stock plus the preferred stock.

4. Extent of Corporations. According to the census of 1929, there were 210,959 manufacturing establishments in the United States. Of these, 109,144 were owned by individuals, and 101,815 by corporations. This shows that about 48 per cent of all manufacturing establishments were incorporated, and they produced 92 per cent of the value of the goods produced, and employed 89 per cent of the wage earners.



Federal Employee Sorting Mail

In 1935, a study was made of the largest administrative units of a corporate character in the United States. They were divided into three classes as follows: 200 of the largest nonfinancial corporations, 50 of the largest financial corporations, and 20 of the largest government units. Of the 200 largest nonfinancial corporations, about one half were railroads or utilities. The railroads in the list operated over 90 per cent of the mileage of the country. The electric utilities accounted for 80 per cent of the electric power produced, as well as more than 90 per cent of the telephone service, practically all the telegraph service, and most of the transit service in the largest cities. The remaining 107 of the nonfinancial corporations included 84 primarily manufacturing, 10 merchandising, and 9 mining, while the other 4 were miscellaneous.

In the financial group were the banks and insurance companies. Of the 50 listed, 30 were banks, 17 were life insurance companies, and 3 were investment trusts. The 20 large governmental units included such units as: the Federal Government, city of New York, state of New York, state of Pennsylvania, and the city of Chicago. These together employed 46 per cent of all the man power em-

ployed in government. The largest of these, the Federal Government, even in peacetime, employed more than 1,000,000 men. In the case of government, a corporate organization may be designated as *administrative units* rather than as corporations.

KEY POINTS IN UNIT 5

1. As previously stated, the basis of all production is the consumers' desires for various commodities to satisfy wants.
2. Continuity of these desires provides a basis for the organization of industry for satisfying human wants.
3. When farmers plant potatoes they take into account the continuity of consumers' desires for potatoes.
4. The basic resources of a country are important factors in helping the organizers of an industry to plan effectively for the satisfying of consumers' wants, or desires.
5. Some economists advocate some kind of centralized control for setting prices and deciding what shall be produced; others claim that the great force controlling organization of industry is the mechanism of a free and competitive market.
6. The administrative power of an industry largely determines how co-ordination of the various branches may be maintained with the greatest efficiency. The price set is called an *administrative price.*
7. The different forms of administration include individual proprietors, partnerships, and corporations.
8. In a corporation the enterprisers are stockholders.
9. In a study of corporations, stockholders must be distinguished from bondholders; a *stockholder* is one of the owners in the business and shares the losses as well as the profits; a *bondholder* is not an owner in the business and consequently assumes little risk.
10. In times of depression, stockholders sometimes sell their stock and buy bonds in an attempt to avoid loss.
11. In the year 1929, forty-eight per cent of all manufacturing establishments in the United States were incorporated.
12. The largest administrative units of a corporate character in the United States in 1935 can be divided into three classes: nonfinancial, such as railroads and utilities; financial, including banks and insurance companies; and governmental, which include municipal as well as the Federal Government.
13. The largest of the governmental units is the Federal Government, which even in peacetime employs more than a million men.

Unit 6. Scale of Industries

A. Large-Scale Production:
   1. Advantages.
   2. Disadvantages.
   3. Separation of Ownership and Management.
B. Factors That Determine the Size of a Plant:
   1. Industries Where Small Enterprises Still Operate.
   2. Further Analysis of Farming.
   3. Other Fields of Small Enterprise.
C. Combinations.

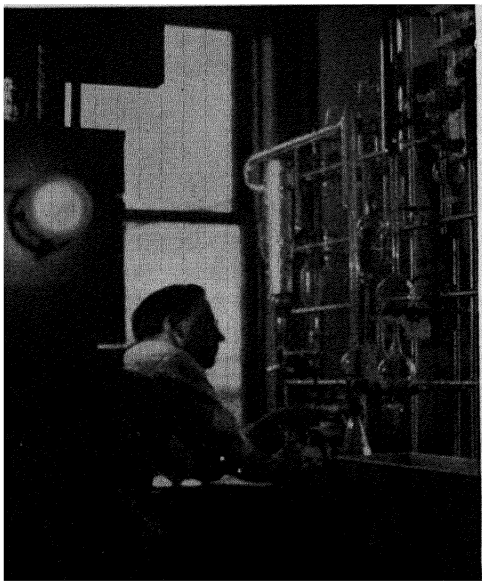
A. Large-Scale Production. One of the outstanding features of our economic development has been the ever-increasing size of the business unit. At the outset, the development of power-driven machinery furnished the principal incentive to large-scale production. The efficient use of steam or water power demanded the investment of larger amounts of capital than could ordinarily be supplied by a single individual, and so the corporate form of organization came into existence.

1. Advantages. Large-scale industries, usually organized as corporations, have certain advantages. Because of their size, they are able to maintain research departments employing experts, for example in chemistry and physics, to work in their laboratories and there discover new and better methods of production or means of using by-products that would otherwise be thrown away as waste. Such industries also maintain an economics department, which makes a careful study of the market and the probable elasticity of demand for the product, and a cost accountant who watches changes in unit cost if a larger quantity is produced and who can advise management as to the policy in quantity production and cost and price per unit. This department will also keep a careful check on the movements of the market as reflected in financial forecasting services.

Because large-scale industries can usually purchase raw materials in large quantities, they are able to secure those materials at

better prices than if they were forced to buy in small quantities. In the same way they can sell in large quantities and thus often make better prices to customers who buy in carload quantities rather than in broken lots.

A further advantage for large-scale industry is the fact that it can carry specialization to a high degree. Division of labor often means that much lower unit costs can be secured, and specialization enables the industry to obtain the best managerial ability.



Underwood & Underwood

Industrial Research Laboratory

If the management of a large-scale industry so desires, the plants can be mechanized and the best and most labor-saving machines can be used. The ability to mechanize is a decided advantage.

2. Disadvantages. However, there are some disadvantages for large-scale industries, or at least there are certain factors that limit the possibility of growth. For example, an industry may be limited in the market it can serve. High freight rates once limited the expansion of the market, but improved highways and trucking systems have helped to overcome this difficulty to some extent.

Another disadvantage of large industries lies in the fact that management is turned over to hired managers who do not take the interest in the business that is taken by those more closely associated with the ownership, while in a small industry the owner usually takes a personal interest in the business.

In connection with large corporations, there are certain practices detrimental to the public and often to the stockholders. In

some cases elected managers take advantage of their more intimate knowledge of the working of the industry and abuse the privileges they enjoy. Two examples of the methods used by such managers are outstanding. The first is that of officials who vote themselves bonuses. Without the knowledge of the stockholders, who often find the financial reports of the company difficult to understand, the officials, in addition to their regular salary, may vote to themselves considerable bonuses before the dividends are paid to the stockholders. Another instance of injurious practices by officials: where the officials of one corporation are stockholders in another corporation and they use their official position in the first corporation to place orders for large amounts of material, at exorbitant prices, with the corporation in which they hold stock.

3. Separation of Ownership and Management. Within recent years, economists have begun to recognize a situation which has been developing over a period of time. Heretofore, in all the history of property, the owner kept control of his property, and ownership and control went together. A person who owned a business managed it. Now, students of business recognize that ownership and management have gradually become separated in the great corporations. The common stockholders usually live in widely separated sections of the country and do not even know each other. Frequently, they do not thoroughly understand the financial statements sent out by the corporation officials. The stockholders are asked to send in signed proxies to the annual meeting. These proxies give to some other person, usually associated with the management, authority to vote in place of the one who signed the proxy. Such stockholders know little or nothing of the questions that will be voted on by the person holding their proxies, therefore, management officials can continue to perpetuate themselves in office and proceed with either good or bad management. Every stockholder should feel a responsibility in this matter, just as a citizen in civil life should feel it his responsibility to understand the political questions on which he votes. Unfortunately, the voters, both in political elections and in industrial corporations, often vote in total ignorance of the issues involved.

In a recent report made by one of the largest corporations of the world, the outgoing chairman of the board of directors made the

statement that he considered that a great corporation had a serious responsibility to three great classes in society: first, to its employees, who numbered many thousands, because these men were dependent for their livelihood on their opportunity to work in the industry; second, to the stockholders who have saved from their earnings and have invested their savings in the corporation with full faith that it would be used to the best advantage to secure earnings for the investors; and third, to the public which purchases the corporation's commodity and has the right to expect the best of service, the best of quality, and a fair price. This might well be the attitude taken by all corporations as an industrial code of ethics.

B. Factors That Determine the Size of a Plant. It is now fairly clear in what industries large plants predominate. Next, it is necessary to find in what fields small enterprises still operate.

1. Industries Where Small Enterprises Still Operate. Agriculture is the most important of the industries with small-sized units. In 1935, there were 7,000,000 farm units in the United States, of which only 42,000 employed more than 5 persons each. The remainder of the 7,000,000 farm units, which employed less than 5 persons per unit, accounted for 97 per cent of all persons employed in agriculture.

The elements in this problem of why some industries are large and others small have not so far been sufficiently studied to make anything like a complete answer. However, there are certain aspects that can be pointed out, and it can then be left as a subject for further research. Factors that can be taken into consideration as bearing on the size of a plant are: changes in technique, in administration, and in the market.

2. Further Analysis of Farming. In 1870, of all persons gainfully employed, 53 per cent were engaged in agriculture; in 1930, only 21 per cent were engaged in agriculture. Agriculture does not lend itself to large-scale production. However, a careful study of the application of technology to farming shows that a considerable amount of attention has been given to this subject.[3]

Technological changes that can be applied in farming are many and varied. Mechanization, engineering, electrification and refrig-

[3] *Technological Trends and National Policy*, p. 97, National Resources Committee, 1939.

Cutting and Threshing in One Operation by Use of a Combine Underwood & Und

eration, plant and animal improvements, control of insects and other pests, soil nutrition and study of land uses, control of erosion, marketing methods, trends in forestry, and development of dairy industry are but a few of the instances in which technology may be used in agriculture. Some of these, like mechanization, may lead to larger farming units, to division of labor, and to lower unit costs. But it does not happen that, even under these conditions, the farmer is able to secure such large profits as are created in the manufacturing industries by uniting industrial activities.

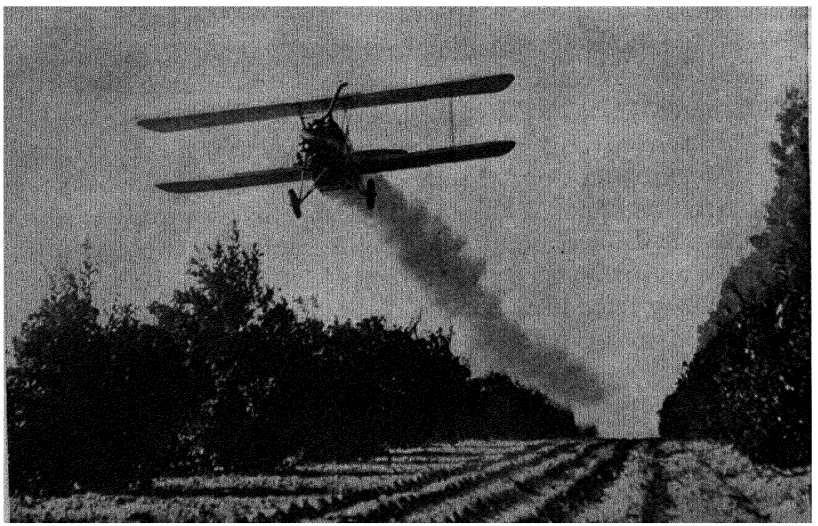
There are two points that must be kept in mind in connection with farming. Even in the case of large farms, the proportion of fixed costs is relatively much higher than in the case of industry. In other industries the spreading of the fixed or overhead costs is always a matter of great interest in the effort to lower the unit cost of the output. In agriculture, the large farm also meets many uncertainties and risks, such as price changes, over which the farm producer may have little control. Insect pests and droughts are other conditions that limit production even after a large amount of preparatory labor has been used. Further, it must be repeated that mining, agriculture, and forestry show a tendency toward increas-

ing unit costs as the amount produced is increased. More than this, the source of output is being destroyed in some cases as in mines and forestry, unless the forests are immediately replaced. In agriculture, the soil may be worked so hard that its productive powers are temporarily destroyed and the land must lie idle for a time in order to regain its fertility, although this can be long avoided if proper fertilizers are used, and if crops are rotated.

3. Other Fields of Small Enterprise. Other fields of small enterprise are retail trade, service, and construction. In spite of chain stores and mail-order houses, 30 per cent of the retail sales in 1935 were made by independent dealers who did a comparatively small yearly business. Is merchandising an industry in which large-scale production prevails? Sufficient study of this subject has not been made to give a definite answer, but it seems evident to some who have done research in this field that the large store is not so effective as the smaller store and that there is a continuous increase in unit expense in department stores as the size of the store increases.

C. Combinations. It is necessary to take into consideration various forms of combination that have prevailed in business; first, the trust. Before 1890, in order to create a trust, it was arranged that each firm that proposed to come into the trust would turn its

ing Crop to Control Destructive Insects *Underwood & Underwood*



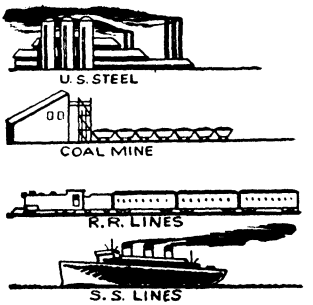
stock, or a majority of it, over to a board of trustees that would determine the policy for the combined business.

In return for the stock of the various corporations that were thus combining, the board of trustees would issue trust certificates to the former stockholders. This destroyed any further competition among the companies so uniting. The Sherman Act was passed in 1890. It declared:

> Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal.
>
> . . . . . .
>
> Every person who shall monopolize or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States or with foreign nations shall be deemed guilty of a misdemeanor.

Several trusts were dissolved under the law, but it became evident as time passed that the law was not very effective and that there were other methods of accomplishing the combinations desired.

In 1914, both the Clayton Act and the Federal Trade Commission Act were passed. It was believed that these two measures would not only assist in defining unfair competition, which had become a subject of much dispute, but also do away with interlocking directorates and holding companies, and that the second of the two measures would make it possible to carry on investigations and greatly assist in the administration of the antitrust laws. None of the three laws passed have had any material effect on the growth of large aggregations of capital. Some economists hold that laws attempting to restore competition and destroy large business are futile and that large-scale industry should be regulated rather than eliminated.

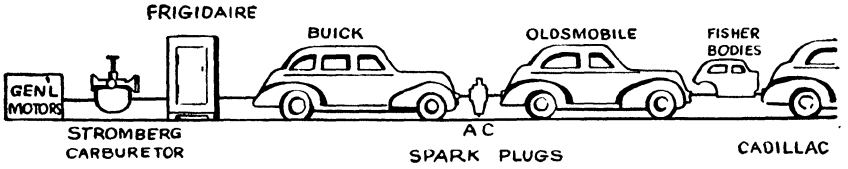


Vertical Combination

The trust system has been done away with, but mergers, holding companies, and interlocking directorates have continued. A holding company is represented by a company like United States Steel Corporation, where the combination secures a controlling interest

in subsidiary companies by buying their securities, but not actually taking over the property of the various companies that have entered the combination. This does away with competition among the subsidiary companies. United States Steel is frequently spoken of as an *integrated industry* or a *vertical combination* because it controls not only the plants that produce finished iron and steel implements, but also the source of the raw material, iron ore in the mines, and means of transportation, such as shipping lines on waterways and railroads. It controls the industry from bottom to top.

Industries may combine *horizontally.* Assume that several sugar refineries, all producing sugar and competing with each other, see fit to unite into one company. This is the kind of combination typical of the trust movement. Other forms of combination in-



Horizontal Combination

clude: first, a merger, or consolidation; that is, a complete combination of a number of companies that have been competing with each other. In such a case each company gives up its separate identity. The corporation formed to absorb these companies takes over the property of the separate companies entirely. Second, another form of combination is an interlocking directorate; that is, a group of men may own a considerable number of shares of stock in various companies and they secure the appointment of themselves on the board of directors of each of the firms. This means that the directors can appoint officials who will carry out their wishes.

KEY POINTS IN UNIT 6

1. An outstanding feature of our economic development has been the ever-increasing size of the business unit.

2. Development of power-driven machinery furnished the principal incentive for large-scale production.

3. Efficient use of steam and water power demanded investment of larger amounts of money than could be supplied by a single individ-

ual, consequently the corporate form of organization came into existence.

4. Large-scale industries have certain distinct advantages. These include the ability to maintain research departments; to hire experts in the field; to utilize by-products; to secure raw materials at better prices through buying large quantities; to use ability of workers more effectively by division of labor; to install labor-saving machines which small industry cannot afford.

5. There are certain distinct disadvantages in large-scale industries: for example, the territory the business is able to serve is limited by cost of transportation. Beyond a certain point, the principle of diminishing returns begins to cut profits by an increase of transportation charges per unit cost.

6. Personal contact of management and workers is not possible in a large-scale industry as it is in small industry. This lack of contact often causes misunderstanding.

7. Another serious disadvantage of large-scale industries is the separation of ownership and management. Elected officials do not always have a code of ethics that makes for honest return to the owners. Stockholders are sometimes widely scattered. It has frequently happened that administrative officials have voted themselves a large bonus before dividends are paid to stockholders.

8. Agriculture is the most important of our small unit industries. In 1935 there were 7,000,000 farm units in the United States. Of these, ninety-seven per cent were operated by five persons, or less, per unit.

9. In 1870, of all persons gainfully employed in the United States, fifty-three per cent were engaged in agriculture. In 1930, only twenty-one per cent were so employed. This reduction was brought about by the improvement of farm machinery through technology.

10. Other small but important industries include: retail stores, service, and construction.

11. Corporations have been restrained in various activities by such laws as the Sherman Antitrust Act (1890), the Clayton Antitrust Act (1914), and by the Federal Trade Commission.

12. Among the forms of combinations which replaced trusts were mergers, holding companies, and interlocking directorates.

Unit 7. The Handling of Risks

A. Risks Widespread.
B. Function of the Enterpriser.
C. Dealing with Risks:
   1. Insurance and Middle Man.
   2. Terminal Market and Hedging.
   3. Eliminating Risk.
   4. Forecasting.

A. Risks Widespread. There are few activities in the lives of human beings that do not involve some form of risk. The process of crossing a city street has considerable risk for an elderly person; the building of a residence for the purpose of renting it has a risk element, as the neighborhood may already be well provided with living quarters; risk enters into the planting of a wheat crop, because insect pests or flood may destroy the crop, or the quantities planted in a particular year may greatly outrun the demand for wheat, thus causing the price to fall far below the cost of production. But the uncertainty that arises in business, in the so-called roundabout method of production, is perhaps one of the largest elements of risk that society has to consider. Suppose you are engaged in producing a certain kind of radio. You have on hand the materials for the production of a certain number of radios and you have a certain number ready for the market. Suddenly an entirely new invention that constitutes a really great improvement is embodied in another radio just put on the market. You have produced in the face of a possible disappearance of the demand for your kind of radio. Or perhaps the Government may see fit to pass an act that involves a decrease in tariff. This may admit, from other countries, goods of the same type you are producing, in such quantities that the price of your goods is lowered and you face a loss.

B. Function of the Enterpriser. It is necessary to decide who in industry takes the risks. The enterpriser may be placed first. He is the man who, having recognized that a desire needs to be

satisfied, decides to organize a business for the purpose of producing a commodity to meet such a desire. He must go into the land market and purchase land, into the money market if he does not have sufficient money and secure the loan of more money, and finally into the labor market and buy the services of labor. Then he must organize these factors into a going concern. If, during this process of organization, another enterpriser has anticipated his work and has produced the goods he has planned to produce, he has to face a risk of losses. The enterpriser, then, is one of those who must handle the problem of risk.

There are still others who are risk bearers. Assume that the enterpriser who is organizing the business must borrow a part of the money he uses. Under those conditions the lender of the money is also involved in risk; if the business fails, he may lose all he has put into it. Finally, the employees of the industry also face possible risks. Suppose that a new machine comes into the industry and displaces a fourth of the men formerly necessary to carry on a certain process. Here is the risk faced by many employees and such a risk of unemployment may be temporary or more or less permanent. The invention of the cotton picker is an example of a machine that would, if put into full use, immediately displace a large number of men. Besides this phase of risk on the part of the employees, there is another form of risk they must face; they face the risk of bodily injury. They may be required to handle a dangerous machine or engage in a process like making Portland cement, for example, which produces dust injurious to the lungs.

Risk of Bodily Injury

C. Dealing with Risks. The ability of any enterpriser is judged to a large extent by the way he handles the risks in which he finds himself involved. This is a part of that special ability the enterpriser is assumed to possess that enables him to organize and direct business. An individual with certain native qualities may develop a considerable capacity for such positions of entrepreneurship through the rigid training that is today given to fit men and women

for such places, either in schools or by entering industry and acquiring experience.

1. Insurance and Middle Man. There are a considerable number of risks against which the enterpriser can protect himself by taking out insurance. Take the farmer as an enterpriser; he can insure against loss of his crop by storms, and against the loss of buildings and machinery by fire. In manufacturing there are a number of risks against which insurance does not protect. How then shall the enterpriser meet his other risks?

Take the case of a manufacturer of men's clothing. In this industry the manufacturer frequently produces goods only on order. For example, a middleman or jobber, dealing in men's clothing, places an order for a certain number of suits made in different styles. A date is set after which he cannot cancel his order with the manufacturer. This date is such that the actual manufacture of the suits may not begin until the manufacturer knows there will be no cancellation of orders. This shifts the risk to the middleman. The middleman in turn may try to cover his risks by securing orders from retailers so that any cancellation by the retailer may precede his own cancellations with the manufacturer.

2. Terminal Market and Hedging. Besides shifting risks to insurance companies and the middleman, there is a third method of protection against loss, known as shifting to the terminal market. The process used is *hedging*. This may be defined as the making of two contracts at the same time, one to sell and the other to buy.

A simple example of hedging may represent a perfect hedge, where neither gain nor loss is expected and where speculation is not contemplated. Suppose that on September 1 a broker sells 5,000 bushels of wheat to a miller for delivery on April 1. The broker has no wheat, so he is *selling short;* that is, he is selling something that he does not have. At this time he merely gives to the miller a contract saying he will deliver the wheat on April 1. A *broker* is one who arranges sales contracts between a buyer and a seller. Unlike a commission merchant or agent, he has no general authority and acts only in individual transactions. He is a highly specialized middleman. Assuming that the price of wheat in September, when this contract to sell is made by the broker, is

$1 per bushel, the miller has contracted to pay the broker $5,000 on April 1. Since the broker has no wheat and has sold short, he must make a second contract, which he makes at the time he sells, or soon after, to buy 5,000 bushels of wheat. The broker's contract to buy is called a *futures contract*, which provides that 5,000 bushels of wheat shall be at his disposal on April 1. A *futures contract* is one that must be fulfilled at a given time in the future. The second contract (the one to buy) made by the broker will be made at the same price as his contract to sell to the miller. The broker has now *hedged;* that is, he has protected himself against any rise in the price of wheat between September 1 and April 1. He may buy his futures contract of another broker or of a wheat elevator company. If he buys of an elevator company, his contract with them also is for $5,000. He arranges with this company to deliver the wheat to the miller on April 1. Up to this time, only contracts have appeared in the market; but actual wheat moves to the miller on April 1.

Let us consider what will happen if the broker does not hedge; and if between September and April the price of wheat rises from $1 to $1.10. When April 1 comes, he will have to go into the cash market and buy 5,000 bushels of wheat for delivery to the miller. For this he must pay the prevailing price of $1.10 per bushel and must fulfill the contract with the miller by delivering wheat, the total cost of which is $5,500. As he is to receive but $5,000 from the miller, according to contract, the broker loses $500. If he hedges he will neither gain nor lose. Where then is the profit in the transaction? There is none. The broker makes his money through the commission he receives for the work of carrying on the transaction for the miller.

However, there is a form of hedging known as *speculative hedging*, where the broker can make a profit. Let us assume that the broker makes a contract with the miller exactly as in the last illustration for delivery April 1 at $1 per bushel. The broker observes that there is every probability that the price of wheat will be higher on April 1 and that it will continue to rise for some time thereafter. In other words he sees that the wheat market will be a rising market for some time. When he buys his futures contract from the

elevator company, he makes it out to be delivered May 1, since he believes prices will continue to rise at least that long. Now when April 1 comes, he goes into the cash market and buys 5,000 bushels to fill his contract with the miller. Prices have risen by April 1 to $1.05 so he must pay $5,250 for the wheat and receives from the miller but $5,000. Here is a temporary loss of $250. However, he has a futures contract calling for delivery of 5,000 bushels of wheat May 1 for which he has paid but $5,000 since the contract was made in September at September prices. He can, if he wishes, sell his contract April 1 and just come out even, but if he wishes to speculate he may hold it until May 1 when, we assume, the price will go to $1.10 per bushel. Remember the broker paid only $5,000 for this futures contract and he sells it for $5,000. He lost $250 in filling his contract with the miller but covers that loss and makes a clear profit of $250 when he sells his futures contract with the elevator company. This is a speculation. As in the first illustration, where no speculation took place, he earns his commission when selling to the miller, but in this case the broker makes a profit as well. *Hedging*, then, is a means used by dealers to protect themselves from loss.

3. Eliminating Risk. There is still another method of dealing with risks. Assume that a farmer has a corn-cutting machine which is so constructed that in feeding corn into it there are many accidents to the hands of the men who do the work. The farmer finds that an appliance has been patented which, when attached to the machine, protects the hands of the workmen. This may be called *eliminating risk*, a method much used in all types of industry.

4. Forecasting. In these days when technical training is necessary in business, a man who hopes to become an enterpriser must be trained to forecast what will probably happen in the market. This, too, can be considered a method of dealing with risks, as such an enterpriser will curtail output when prices are beginning to fall and demand is beginning to drop, and *vice versa.*

KEY POINTS IN UNIT 7

1. Few activities in life are entirely free from risks; for example, crossing a city street.

2. Any business enterprise involves a variety of risks. The uncertainty that arises in the financial world in the so-called *roundabout* method of production is perhaps one of the largest elements of risk that society has to consider.

3. The enterpriser who organizes and manages the various factors of a going business concern is the one who assumes the greatest burden of the risk involved in that particular business. In case he must borrow money for financing the enterprise, the bank or agent that lends the money also shares in the risk. The employees likewise share in the risks; they risk the loss of their jobs or loss in wages through curtailment of the business, or they may be deprived of work through the invention of some labor-saving machinery, such as the cotton picker; or they may risk their health by working in certain industries, such as a Portland-cement factory; or they may risk bodily injury if working with dangerous machinery, such as engines.

4. The enterpriser may protect himself against risk to some extent by insurance, or by shifting the risk to a middleman, or by hedging.

5. *Hedging* simply means the shifting of risk to a terminal market. This process may be defined as the making of two contracts at the same time: one to sell, the other to buy. In such an instance the enterpriser is endeavoring to offset gains and losses by counterbalancing transactions. In such a case there is no expectation of profit, although the broker receives a commission on the sale. However, there is a speculative type of hedging employed by brokers who buy on the assumption of a rising future price.

6. Eliminating risk of injury to workers is another form of protection; this the enterpriser can provide by the installation of machinery which will prevent accidents.

7. In these days of specialized technical schooling, the business man is trained to forecast probabilities of the market.

8. A technically trained enterpriser, then, will tend to curtail output when prices are beginning to fall and demand is beginning to drop, and *vice versa.*

Unit 8. Different Types of Cost in Industry

A. Demand.
B. Supply.
C. Items in Cost.
D. Fixed and Variable Costs.
E. Value of Such Tables to the Enterpriser.
F. Overhead Costs.
G. Variable Costs.

A. Demand. In analyzing our economic life it is necessary to remember that there are two forces at work, *supply* and *demand.* On one side of the market is *demand*, the consumer and the income he is able to expend. His income determines the amount of goods he will purchase. The principle of diminishing utility and its marginal utility will determine the demand for a good. This demand side of the market represents the part played by the buyer or the consumer in setting the price that will be paid for a commodity in the market.

B. Supply. The other side of the market is the *supply* side, for which the producers are responsible. Here the principle of diminishing returns, already discussed, plays its part. It is this principle that aids in determining how scarce a commodity will be. The important thing on this side of the market will be the cost to the producer. At this point a sharp line must be drawn between *cost* and *price. Cost* is the expense to the enterpriser of producing a unit of his product; *price* is the amount that is paid by a consumer to secure possession of a unit. *Price* is sometimes said to be *value*, which is power in exchange expressed in terms of money.

Price is established in the market. Cost includes all the expenses that the enterpriser must pay in order to bring his commodity to completion. His costs will include the wages of labor he has used, probably a rent on land, and the expense of various materials. The commodity will not be sold at a price less than its cost per unit, and probably not at a price greatly above such cost.

C. Items in Cost. In considering all the factors that enter into cost, assume that a man has decided to produce a certain type of radio. He has some capital, but not enough to finance the business. As the enterpriser in this business he will borrow from the bank, since he has sufficient securities to enable him to get a loan. Then he must obtain the land on which to build a plant. Land, one of the factors of production, is absolutely essential for the undertaking, as it provides space for location. He purchased the land, although he might have decided to lease it for a term of years and agreed to pay a yearly rent.

The next step in the enterprise is to construct the buildings for the plant and, having done that, he secures the machinery and materials necessary for making the radios. He now has the capital goods to aid labor in the undertaking. While the buildings were in the process of construction and the machinery was being installed in the factory, labor was necessary. Labor always accompanies capital; that is, labor and machinery and raw materials are all necessary in carrying on the process of production. Machinery has already been called *capital goods*, but we must now include under *capital goods* the raw materials that are necessary in the productive process.

D. Fixed and Variable Costs. To the cost of each radio, as a part of the cost of production, are added the amounts that the enterpriser has had to pay for the use of land, capital, labor, and an enterpriser's wage for himself. The fixed costs include the costs of the plant; that is, the rent on the land, the interest on the money invested in the buildings and machinery, and the enterpriser's wages. All these will remain the same no matter whether the plant produces 1,000 or 1,500 radios. The amount of fixed cost for each unit of output decreases as the number of units produced increases. To find the amount of fixed cost in each unit, the total fixed cost is divided by the number of units produced at any given time.

Variable costs vary directly with the output. They are such costs as the amount of raw material, the power used, and the unskilled and skilled labor. As the number of radios produced changes, these costs change and therefore are known as variable costs. These terms are not new to us: this is simply carrying a

little farther the principles learned by studying Table I. That table, however, does not show the average variable cost which would be obtained by dividing the total variable cost by the number of units produced. Since the principle of diminishing returns will set in at some point, the average variable cost per unit will at first decrease; but when the point of diminishing returns is reached, the average total cost per unit will begin to increase. Table II and Fig. 15 show these various costs and cost curves for the radio business under consideration.

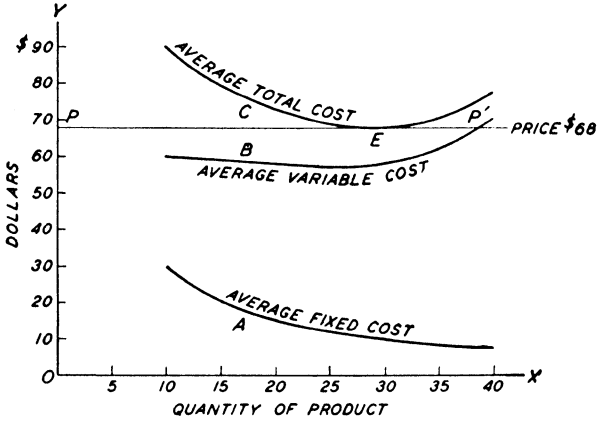


Fig. 15. Graph of Various Types of Costs

In Table II, the first column of figures represents the total output in the radio business. To produce 10 units the total fixed cost is $300, shown in column (2); the total variable cost is $600, column (3). These are arbitrary figures taken to represent the problem, but, in actual business, figures can be obtained from the accountants. The total cost for 10 units is $900, shown in column (4). However, the average costs are the most important because it is the total average cost that will tell the enterpriser when he has reached the point of least cost per unit. If we divide the figures in column (2), (3), and (4) respectively by those in column (1) this gives us the average fixed cost, column (5), the average variable cost, column (6), and the average total cost, column (7).

Examine Fig. 15, the graph which illustrates Table II. Along the line OY, we measure cost, or price, or profit, or loss; that is,

TABLE II—VARIOUS TYPES OF COSTS

Total Output (1)	Total Fixed Cost (2)	Total Variable Cost (3)	Total Cost (4)	Average Fixed Cost (5)	Average Variable Cost (6)	Average Total Cost (7)
10	$300	$600	$900	$30	$60	$90
15	300	885	1185	20	59	79
20	300	1160	1460	15	58	73
25	300	1425	1725	12	57	69
30	300	1740	2040	10	58	68
35	300	2180	2480	8.5	62	70+
40	300	2800	3100	7.5	70	77+

factors that can be measured in monetary units. Along the line OX, quantities are measured, either the amount produced or the quantity sold, anything that can be measured as to size, number of units, length, or area. To measure monetary units we begin at O and move upward toward Y, and to measure quantity we begin at O and move to the right along the line toward X. The cost of $68, shown at E, is the least cost per unit, and since the line PP' is labeled *Price $68*, it is assumed that the radio is sold at a price that will just cover the lowest cost. This means that Table II describes the business of a marginal enterpriser, one who is making no profit and who will probably not remain in this business for long. Remembering that *fixed cost* added to variable cost gives us *total cost*, note that the curve A plus curve B gives curve C.

E. Value of Such Tables to the Enterpriser. Under free competition, determining costs requires considerable study and skilful management on the part of enterprisers. In this discussion producers are classified as either *marginal enterprisers* or *superior enterprisers*. The *marginal enterpriser* is so-called because he produces at a cost just covered by the selling price; therefore, he is the first to leave the industry when prices begin to fall. Table II and diagram, Fig. 15, illustrate the marginal enterpriser. His lowest total average cost is $68 shown at E on Fig. 15. When the price falls to $68 as shown in Fig. 15 rather than take the risk of operating at a loss, the marginal enterpriser will leave the industry, because he prefers to

use his capital in a line where future prospects offer a larger return on his investment.

So many variable factors and conditions enter into the cost of production and the forecasting of business trends that it is difficult to draw a clear-cut line between the marginal enterpriser and the superior enterpriser. Table I illustrates the superior enterpriser. Unlike the marginal enterpriser who leaves the industry when prices fall, the so-called *superior enterpriser* hangs on even in spite of falling prices and smaller returns on his investment. He does not hold production at the point of lowest cost per unit, but continues to expand production to the point where the cost of the marginal unit is just covered by selling price. A study of Table I shows that when the cost of the marginal unit is 50 cents and the selling price is 50 cents, the superior enterpriser will make his greatest profit, or $22. If he had stopped production at the least cost per unit combination he would have received a profit of only $20; instead, he kept on, increasing production at a satisfactory profit.

A study of the tables and graphs is important because large business today and even a small efficient business must have a cost-accounting system. It must be possible for the management to tell at any time through the cost department how much of the cost is fixed and how much is variable. This knowledge will enable the enterpriser to make fairly accurate estimates as to the amount he should expand either one or both of these costs, and will also enable him to direct the production in his plant intelligently rather than by guesswork.

F. Overhead Costs. Overhead costs are *fixed costs*. Suppose you are planning the construction of a plant for the production of radios. What size should it be? The construction material and the equipment of the buildings with machinery will constitute a large part of the overhead costs. The number of radios that will be produced within some specified period of time must be carefully estimated in relation to the amount of land to be acquired, the size and construction of the building, and the machinery needed. It must be remembered that after the plant is constructed to produce a certain quantity of output, the overhead costs involved will continue whether or not any radios are produced. Even if the plant is

idle, interest must be reckoned on the money. If the plant were closed, temporarily, interest would still go on, insurance costs would go on, and probably at least a part of the administrative salaries.

If money (capital value) has been invested in a plant to make radios, the money is sunk in capital goods. The plant cannot be turned over immediately to the production of pianos or of any other commodity without considerable change in machinery. If you wish to find the average overhead cost of any radio, you must divide the total overhead or fixed cost by the number of radios that have actually been produced.

G. Variable Costs. The *variable costs* include raw material, skilled and unskilled labor that will change as output changes, variations in the amount of power used (if electric power is utilized), also heat and light. (To find the *total variable cost* multiply the variable cost per unit by the actual number of units produced.) The *average variable cost* is found by dividing the *total variable cost* by the actual number of units produced. If we add the *total overhead cost* and the *total variable cost* and then divide by the number of units produced, we have the *average total cost* per unit. If we take one total cost and subtract from it the total cost that precedes it, we have what is known as the *marginal cost*, meaning the increase in total cost that would result from the last increase in the quantity produced.

In conducting a business, we can understand why it is necessary to have some idea of the *average overhead cost*, the *average variable cost*, and the *average total cost*. It is not so clear why we should have to consider the *marginal cost*. It is important to know that if a business is to operate at a profit the enterpriser must stop increasing production at the point where the cost of the marginal output will just be covered by the selling price he can get for that marginal output. This is shown in Table I in line six; here the 20 marginal units cost \$10 to produce, and they sell for \$10. This is also the point where the net profit will be largest, \$22, as shown in column (13).

If the fixed costs form a large part of the total costs in an industry, it is best to run the plant, as nearly as possible, at full capacity. The plant cannot run unless the price is at least equal to the average variable cost. Raw material must be bought and the wages of men must be paid.

KEY POINTS IN UNIT 8

1. When analyzing our economic forces it is necessary to remember there are two factors at work—*supply* and *demand.*

2. Demand for a good is determined by operation of the principle of diminishing utility and marginal utility. This has been illustrated by a boy eating apples to his complete satisfaction. After eating each apple his desire for apples diminished, so that apples reached their marginal utility after the third apple. For that day, his *demand* ended at three apples.

3. Producers are responsible for the supply of goods on the market, and here is where the principle of diminishing returns operates. The important factor on the supply side of the market is the cost to the producer. For example, let us assume a truck farmer raised 1,000 bushels of potatoes on a given piece of land at an average cost of 25 cents per bushel. In normal years he sold his potatoes for 50 cents per bushel; in a depression year the demand for potatoes began to drop and the price fell to 35 cents per bushel. The farmer's return on this piece of land was diminished. Next year the farmer again raised 1,000 bushels on the land at a cost of 25 cents per bushel, but the demand had further decreased and potatoes sold for 25 cents per bushel. The farmer's profits were zero.

4. A sharp distinction should be made between *cost* and *price.* Cost is the expense to the enterpriser of producing a unit of his product; *price* is its value or power in exchange in terms of money. Or *price* may be defined as the amount paid by a consumer to secure possession of a unit.

5. Items in cost of production of commodities involve land, capital, and labor. *Fixed costs* include rent for building or land, capital invested, and enterpriser's wages. *Variable costs* involve raw material, power used, and labor—either skilled or unskilled; these vary directly with the output.

6. *Marginal enterprisers*, that is, those operating at the margin of production, exert great influence upon supply since they withdraw when cost of operation begins to rise or prices fall. Their withdrawal reduces the supply of the product they have been producing, thus a shortage is created and this eventually results in a long-time competitive price.

7. *Superior enterprisers* continue producing until the cost of the marginal unit is just covered by the selling price.

8. The term *overhead* is often applied to fixed costs. When an enterpriser wishes to make an estimate of his probable returns on a business venture, he should first consider what his fixed costs will be; that is, how much money is to be invested in land, either bought or rented, how much in building and equipment, and how much for operating expenses—power and office or management personnel.

9. *Marginal cost* is the cost that results from production of the last unit of the quantity actually produced, and is the difference between two successive total unit costs.

Unit 9. Costs to Producers in Different Kinds of Industries and in Different Stages of Industry

A. Kinds of Cost:
   1. Supply Schedule.
   2. Increasing-Cost Industries.
   3. Decreasing-Cost Industries.
   4. Stages in Cost.

A. Kinds of Cost. Having discussed demand and what is meant by *demand schedule*, we now turn to supply and a *supply schedule*.

1. Supply Schedule. A *supply schedule* shows the quantities that producers will bring to market at different prices. The following is a supply schedule.

Price	Quantity
$1	100
2	200
3	300
4	400

This schedule is shown in graph form in Fig. 16.

In a demand schedule it was noted (see Fig. 6) that, as the price lowered, the quantity taken increased, and *vice versa*. Exactly the opposite takes place in the supply schedule. When the price is rising, the producer will bring more to the market to sell, and when it is falling, he will bring less to the market. A buyer wishes to get possession of goods at a price as low as possible; a seller wishes to dispose of goods at the highest price possible.

In the supply-schedule curve, represented in Fig. 16 by SS', both price and quantity move in the same direction; that is, either away from O or toward O. The supply-schedule curve does not show how much the commodity costs the producer to produce it, but shows only the price at which he is willing to sell it. It is important to keep this clearly in mind in order to distinguish a supply-schedule curve from a cost-supply curve.

2. Increasing-Cost Industries. Table I and Fig. 13 show there is a period, illustrated by the curve from *.30* to *.35*, when output is increasing; this would be called a period of decreasing costs. However, the curve from *.35* to *.50* shows a stage of diminishing returns and that means it is a period of increasing costs. Fig. 13, then, is a cost-supply curve indicating different stages of production. A cost-supply curve shows the changes in the cost of production to the enterpriser as he brings a larger and larger number of units onto the market. Notice here the important words are *cost of production.* A *cost-supply curve* must be distinguished from a supply-schedule curve, which (see Fig. 16) indicates price instead of cost.

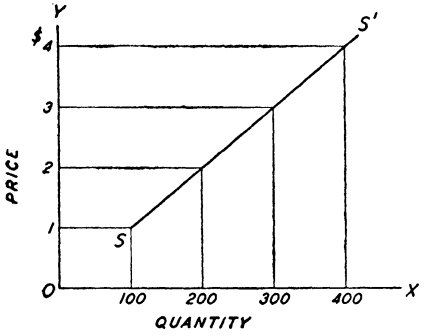


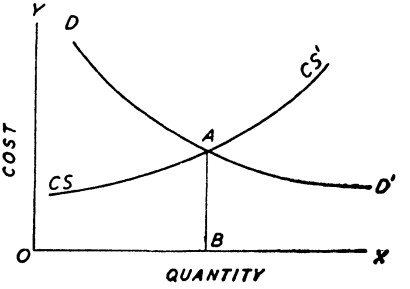
Fig. 16. Supply Schedule

As mentioned before, there are certain industries, such as in mining and agriculture, in which diminishing returns set in early. These industries are spoken of as increasing-cost industries, meaning that the greater the number of units produced, the greater is the cost of each unit. This situation is shown in Fig. 17, which represents costs of an industry in the stage of increasing cost. Perhaps at one time, that is, in a previous stage, its costs were decreasing, but in this stage cost is increasing, as indicated by the line *CS–CS'*. It must also be pointed out that this increasing cost-supply curve runs in the same direction as a supply-schedule curve but, according to the definitions already given, this latter applies to price instead of cost.

3. Decreasing-Cost Industries. Turn now to another group of industries where the principle of diminishing returns does not set in for some time, such as manufacturing, especially large-scale manufacturing where all manner of aids in reducing unit costs can be worked out. Here the cost-supply curve runs as shown in Fig. 18. This, like Fig. 17, shows a cost curve, but in this case, instead of each unit costing the producer more, it costs him less, therefore the line *CS–CS'* slopes down. This type of industry is known as a

decreasing-cost industry and is a form of industry that may easily lead to monopoly.

In Fig. 18 the cost-supply curve declines to the right, indicating that the cost per unit falls as the quantity produced increases. This is a situation that every producer strives for, to reduce his costs; he would also like to expand his output and sell to a continuously increasing number of buyers.



OY, monetary scale line; *OX*, quantity scale line; *DD'*, demand curve; *CS–CS'*, cost supply curve; *AB*, long-run price where demand and cost are in equilibrium, meaning that the amount brought to market *OB* is equal to the amount taken from the market which is also *OB*

Fig. 17. Increasing-Cost Industry

4. Stages in Cost. When the life history of an extractive industry like forestry is traced, it is generally found that in its early development it worked under decreasing cost because there would be a period of increasing returns if it were a new virgin forest; but as the forest became more and more cut away, the point would come when diminishing returns would set in and increasing costs would begin. This means that the cost curve, which in the beginning was sloping down, turns upward. The business has left the stage of decreasing cost and increasing returns and entered the stage of increasing costs and diminishing returns.

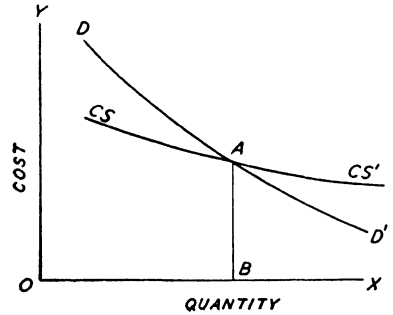
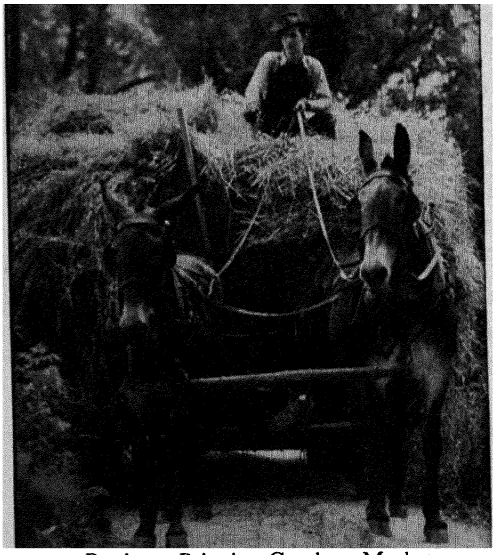


Fig. 18. Decreasing-Cost Industry

Turning now to a manufacturing industry, assume that at the beginning its costs were decreasing and then suddenly the raw material needed, such as raw rubber in rubber tires, became scarce and expensive. This would perhaps turn the industry from a decreasing-cost industry to an increasing-cost industry until somehow the cost of the raw material could be reduced. An excellent illustration of this is the great demand for raw rubber in the early days of automobile building. The raw rubber came largely from the wild

rubber trees in the Congo and the Amazon. The price became almost prohibitive. This caused the investments in the rubber plantations in the East Indies and the cost of rubber went down.

Attention should be called to the fact that in studying the curves in Figs. 17 and 18, each may be considered as one of the possible stages in an industry. Either one of these curves could be a part of a larger curve if more of the history of the business were shown. However, we should remember the statement much used by economists, and already stressed, that extractive industries like agriculture are usually increasing-cost industries while manufacturing industries are usually decreasing-cost industries.



Producer Bringing Goods to Market

KEY POINTS IN UNIT 9

1. Costs of production vary according to the type of industry concerned; even within the same industry, costs may vary at different stages of production.

2. A demand schedule demonstrates that when prices fall, the quantity of goods bought will increase; when prices rise, the quantity of goods bought will decrease.

3. A *supply schedule* is just the opposite of a demand schedule; when prices rise, the producers bring more goods to the market; when prices fall, production decreases and smaller quantities of goods are marketed.

4. Extractive industries, such as mining and agriculture, in which diminishing returns begin early, are known as *increasing-cost industries.*

5. Large-scale manufacturing industries, where many devices aid in reducing unit costs, are known as *decreasing-cost industries.*

6. The ambition of every producer is to reduce cost of production, expand output, and sell to a continually increasing number of buyers.

7. Various stages in cost of production may be shown by one curve.

For example, an industry begins with a fairly high cost per unit of production. These costs may even be decreased for some time, then raw material may become scarce, the cost of production turns, and the cost per unit rises. Automobile tires are such a product.

8. An important fact worth remembering is that extractive industries, such as mining, are usually increasing-cost industries while manufacturing is usually a decreasing-cost industry.

Unit 10. Production of Services

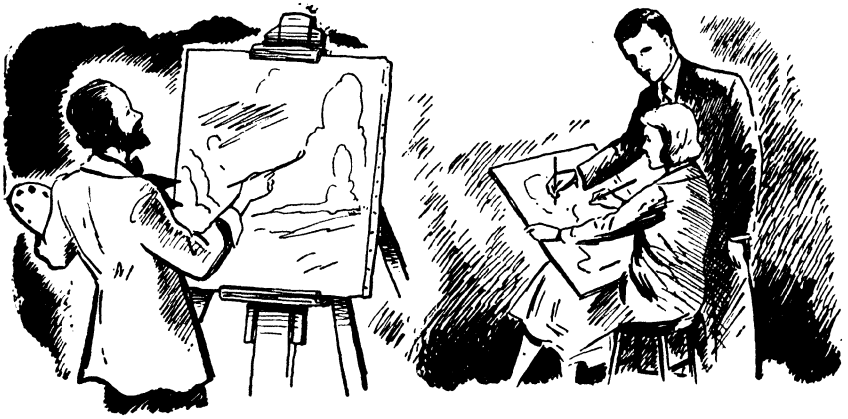
A. Other Services Distinguished from Commodity Production.
B. Immaterial Service a Productive Activity.

A. Other Services Distinguished from Commodity Production. So far our study has been concerned entirely with the production of commodities, that is material objects such as cars, books, and radios. It has been pointed out that economic goods consist not only of concrete material objects but of services as well. These are nonmaterial and consist of such services as those rendered by a teacher of economics in imparting knowledge of a new subject to students, or a program rendered by a grand-opera company to satisfy the desire of an audience to hear beautiful and harmonious sounds.

These services are transferable. A physician cannot transfer his skill. That is not an economic good for it is not external to the physician, but he can use his skill to transfer a service to his patient in the relief of pain. What he produces is an economic good but it is not wealth, since the thing he transfers lacks materiality. As society grows more and more complex and moves away from primitive conditions, more types of economic goods are in the form of services; such as those rendered by actors, servants, and lawyers, and the vast number of services rendered by the Government in providing police service, court service, fire service, and in maintaining the Army and Navy.

Unlike commodities, services render their utility at the time of performance. For example, a piano may be produced and remain

in the hands of the factory that manufactured it for six months or a year, and then pass through the hands of several music dealers before it reaches the ultimate consumer, the person who is to use it. This is not true of services. A service passes directly from the person who renders it to the person who receives it. For example, a hair dresser performs his service directly for the person who desires to have her hair dressed. Therefore, these services are not something that can be stored up like suits of clothes but, like a doctor's service in removing an appendix, must be performed directly on the person who needs the service.



The Artist Produces an Economic Good and the Art Teacher Produces an Immaterial Economic Good

B. Immaterial Service a Productive Activity. In 1776, Adam Smith wrote *Wealth of Nations*, in which a distinction is made between productive and unproductive labor. For labor to be productive, Smith held that it must produce something that is material like a table or a hat, and that all labor that does not result in a material object is unproductive. This forced him to classify all activities of physicians, lawyers, teachers, and house servants as *unproductive.*

As society has advanced and as larger and larger proportions of the population are engaged in producing services, it has been necessary for the economists to go more carefully into this subject and classify services as *immaterial economic goods*, for which, in society

today, considerable prices are paid. Economists have decided, at least many of them, that since these services satisfy a desire, they are a productive activity. These personal services are frequently aided by the use of various kinds of equipment; for example, the dentist uses various types of apparatus.

It would be difficult to name any considerable part of those whose work could be classified as producing services, since the number has become so large; however, we can point out that teachers, lawyers, physicians, preachers, actors, insurance men, and Government officials like the President, all belong to this class. Further, they belong here because they create utilities to satisfy desires, and these utilities are embodied in services.

As already pointed out, the organized economic activity of America consists in obtaining the daily living of more than 133,000,000 people. This means that farmers are busy raising food and raw materials, miners are getting ore and coal, industrial workers are changing raw materials into completed commodities, and the great numbers of wholesale and retail dealers are helping to get goods to the consumers. All of these and many others are performing various tasks connected with carrying on our vast national economic system.

KEY POINTS IN UNIT 10

1. Economic services which are not material may be classified as *immaterial economic services.* These include such services as those of a physician, a teacher, a lawyer, or an administrative executive.

2. Economic goods which consist of material objects are transferable; services which are not concrete are likewise transferable. A physician cannot transfer his skill to his patient, but he can use his skill to transfer a service to the patient.

3. Unlike material commodities, immaterial services are a utility at the time of performance, but cannot be stored up for future use as commodities are often stored.

4. In the early stages of economic development, Adam Smith classified professional skill as *unproductive service;* more recent writers on the subject do not accept this classification as strictly correct, but refer to such services as *immaterial economic goods.*

5. Since immaterial services also satisfy human desires or wants, they can properly be classified as *economic services.*

Unit 11. Creating Time and Place Utilities

A. Distribution as a Problem in Production:
   1. Distribution Defined.
   2. Functions of Wholesalers.
   3. Retail Distribution.
   4. Transportation Agencies.
   5. Storage and Warehouse Facilities.
   6. Comparative Efficiency in Creating Form Utility and in Creating Time and Place Utilities.

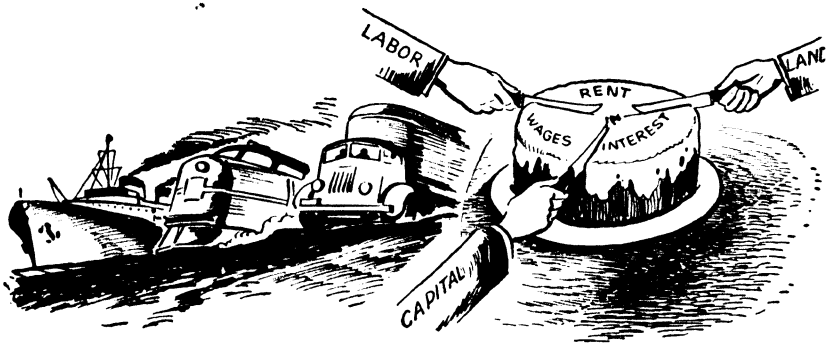
A. Distribution as a Problem in Production. There is considerable doubt in the minds of a number of economists as to where to place the subject sometimes called *distribution.*

1. Distribution Defined. Unfortunately, the word *distribution* has come to have two entirely different meanings in economics. At this point in our discussion it means the moving of goods from place to place at different times. Farther along in this text *distribution* deals with rent, wages, interest, and profits. It is evident at once that this is an entirely different viewpoint and must under no circumstances be confused with the meaning given in this unit.

Economists believe there are at least three types of utilities that can be given to goods: namely, *form*, *time*, and *place*. It is claimed by some that giving form utility should be treated under the head of *Production* and that giving time and place utility should be discussed under the head of *Distribution* (as used in this unit). Not a great deal has been written on this type of distribution in general works on economics, and the problem is: where should it be treated? Some have treated it under the head of *Production.* Others mention it slightly under the head of *Exchange.* It seems advisable to place it in this text as a unit following *Production of Services.* A recent excellent work on this subject, and almost the only one of general interest, is: *Does Distribution Cost Too Much?* This is the result of research by the Twentieth Century Fund staff; it was published in 1939.

The movement of goods from raw material to manufacturer, to retail stores, to consumers, has been discussed. However, merely

naming these three stages fails to describe what really takes place. There are numerous intervening steps in many industries. In getting the raw material from the producer to the manufacturer, intermediary agents of middlemen may enter in; in fact they usually do, and transportation or place utility usually has to be added several times. Even the passing of the raw material through the hands of manufacturers may be but a part of the process. For example, wool from the farm must be shipped to mills to be prepared for the spinners, then the yarn is passed on to weavers of men's suitings. But we cannot stop at yard goods; it must go on to the tailor shops, and again middlemen may enter in and usually



Distribution Has Two Meanings: (1) Transportation; (2) Division of Income

some change of place will occur; after men's suits have been made, these may finally go to a retailer for sale to a consumer. Some of these steps may be omitted and others may be added, but at least it is evident that a number of agencies may enter in between the producer of raw material and the consumer.

2. *Functions of Wholesalers.* The functions of the wholesaler are to buy goods from the producers, transport them, perhaps store them for a time, and finally sell and ship them to retailers. Do not make the mistake of thinking that the first wholesaler to handle the goods necessarily sells directly to a retailer. On the contrary he may sell to another wholesaler as happens often in sugar and tobacco industries. In fact, before a good reaches the retailer, it may be sold several times; for example, raw material or a partly finished good or the completed good ready for the consumer.

On the other hand, some manufacturers sell their goods directly to the retailers or even to the consumer, cutting out all wholesalers, or they may even operate their own retail stores. There is no uniform pattern in this matter. In the study by the Twentieth Century Fund staff it was found that, in 1935, wholesalers accounted for 39 per cent of all intermediary sales, manufacturers' sales branches accounted for 24 per cent, and agents and brokers for 19 per cent. The costs of these various handlings of goods at different stages also have been carefully dealt with in that study.

3. Retail Distribution. The primary function of the retail dealer is to transfer the ownership of goods from himself to the consumer. It is his function, as a storekeeper, to have stocks of goods on hand when they are wanted and to sell in the quantities and form that the customer desires. Ordinarily the retailer delivers the goods at the time and place the customer directs and often he exchanges unsatisfactory goods. The retailer also does some processing such as grinding coffee or refitting dresses and suits when purchased by a customer. Often he does a great amount of advertising, especially in communities where competition is strong, in order to draw customers to the particular brand he handles or to make known some special service he renders.

It is estimated that in 1929 consumers bought directly: from retailers about $44,500,000,000 worth of goods; from farmers $1,000,000,000 worth; and about $2,200,000,000 worth from manufacturers and wholesalers. This makes the entire amount spent for goods by consumers in 1929 about $48,000,000,000. It gives a fair idea of the amount of goods that passed through the hands of the retailers to the consumers in proportion to the amount purchased by the consumers from other sources.

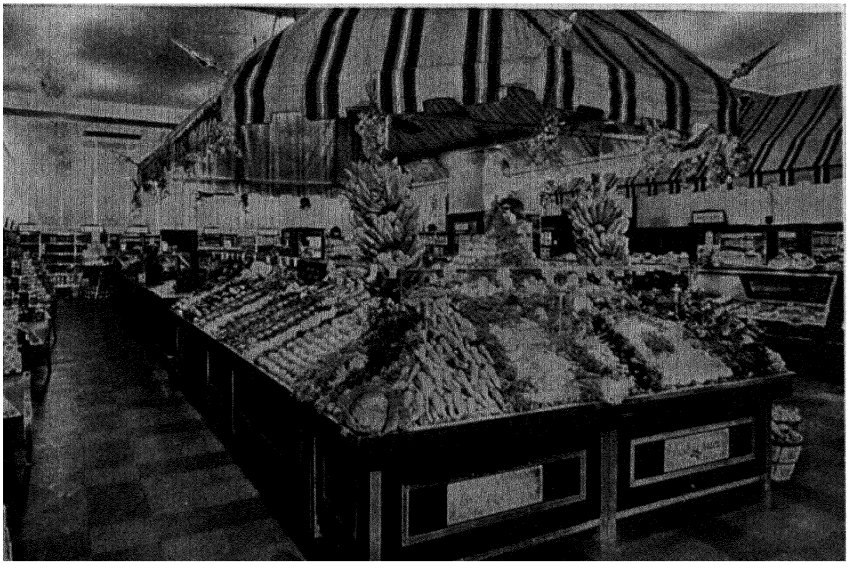
There are several types of retailers: the independent dealers, the chain stores, the co-operatives, and the super markets. The independent merchant is the dominant type in the field of retailing. He handles his entire business, financing and managing it. In 1935, the independent merchants operated about 86 per cent of the stores and did about 65 per cent of the retail volume of trade in the United States. These figures are of single stores only and do not include chain stores of two or more owned by one merchant. The

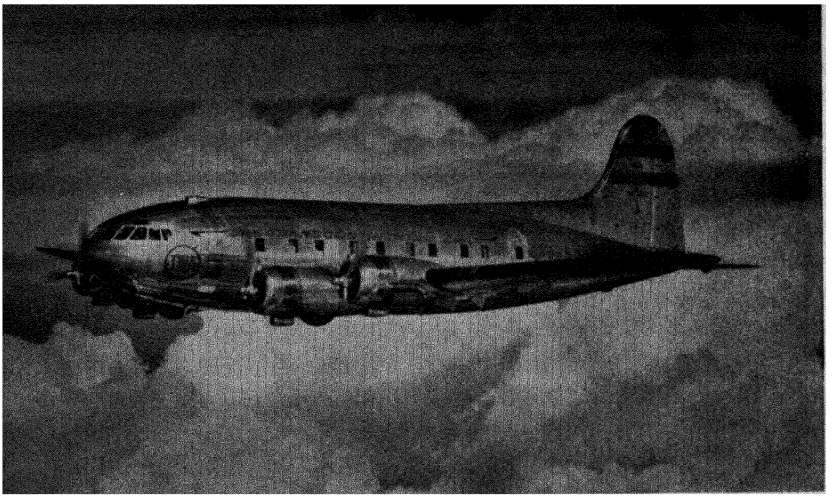
amount of business transacted by independent dealers differs considerably for different types of goods. Some of the industries that show high percentages handled by independent retail dealers are jewelry, motor vehicles, furniture, radios, and drug products.

If two or more stores are operated under one ownership and management, they constitute a chain. In 1935, although only about one out of twelve of the 1,500,000 retail stores were chain stores, they handled about 23 per cent of all the retail trade. Chain stores consist of a number of retail establishments owned and managed by one company, with each unit entirely separate from every other unit, but conducted from a central office. In food, 29 per cent of the total retail sales were handled by chain stores; in apparel, 28 per cent; and in general merchandise, 33 per cent.

These stores have some advantages in bargaining because of their larger buying power and central management. The managers seek good locations for new stores and use effective operating methods. They provide little service and thus can sell at somewhat lower prices than a one-store competitor. Finally, they maintain a high degree of cleanliness.

Retail Store Showing Consumer Goods *Underwood & U*





ner, an Important Means of Transportation

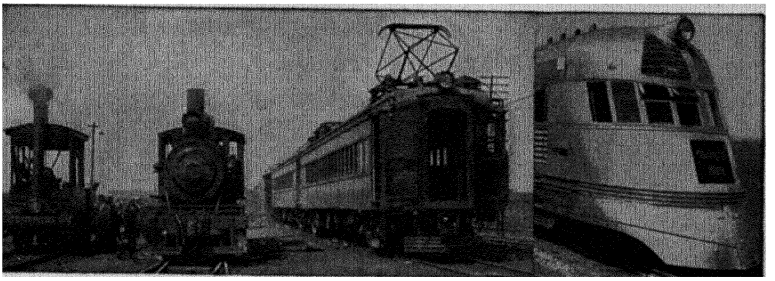
Courtesy Transcontinental Western Air, Inc.

There are some disadvantages the chain stores must overcome: the strong opposition from independents, the competition with other chains, and opposing legislation. The Robinson-Patman Act (1936) was such a piece of legislation. The original object of the Act was to prevent chain stores and other big buyers, through their larger purchasing power, from obtaining an undue advantage over small dealers. The supporters of this bill based their arguments on the prevention of unfair competition.

In discussing retail business, some attention must be given to the consumers' co-operatives. Their ownership is vested in the hands of the consumers who are customers of the store. Such stores are generally incorporated. The profits distributed to the stockholders are based on the amount purchased, not on the number of shares of stock held. The object of the co-operatives is to save the costs of distribution and to distribute the resulting profits to the consumers. These organizations have shown a fairly steady increase since 1919 in retail lines, farm supplies, and petroleum products. It is evident also that the organizations are beginning to feel the need of much more education in efficient management, better merchandising methods, and far better accounting systems. These defects are being remedied.

The super markets are more recent in development and have moved along many different lines so that it is not yet possible to make any definite statement as to their general characteristics.

4. Transportation Agencies. Transportation lines are important in providing the place and time utilities. Under the head of *Transportation Agencies* may be included railroads, electric lines, trucks, air transport, waterways, and pipe lines. Of these, the railroads still lead in the amount of interstate traffic they handle, 65 per cent of such traffic being handled by them. There are certain commodities that will, no doubt, always depend on the railroads for transport; for example, coal and mineral ores, and timber and lumber in



Improvements in Railroad Transportation Facilities Developed in Less Than a Century

Left to right—old wood-burning steam engine, coal burner, electric-powered train, and the Diesel Electric

various stages of completion. The problem of railroads alone forms a whole field in economics; it is sufficient to point out here that many serious problems face the railroads, such as heavy overhead costs, cross hauling, empty-car movements, all of which require much attention.

The use of waterways has come into consideration within recent years. It has been possible to work out quite accurately the cost of original construction and maintenance of such waterways. Summarized, it amounts to this: the cost of original construction is high. The present Erie Canal cost about $370,000 per mile while the construction of a railroad in the same locality was but $188,000 per mile. The conclusion is that the railroads are more efficient than either the best canals or canalized rivers if the costs of construction are taken into account. Accounting also shows that maintenance is

higher for the canals than for railroads. The cost of transporting per ton mile on the improved Ohio River is estimated at 18.84 mills and on the railroad of the same area 6.84 mills.

The number of motor trucks increased to over 4,000,000 in operation in 1937. This figure does not mean that any such number are engaged in public trucking, for it includes also those owned by farmers and businesses. It is estimated that only about 200,000 are engaged as public carriers.

5. Storage and Warehouse Facilities. While the transporting agencies provide primarily a place utility and secondarily a time utility, there are agencies that can be considered as created essentially to provide time utility: these are storage and warehousing facilities. In 1935, warehouses had an income of $79,000,000. Of this amount farm products paid $23,000,000, cold storage $27,000,000, and general merchandise $29,000,000. This last item, general merchandise, includes goods stored by manufacturers and dealers.

6. Comparative Efficiency in Creating Form Utility and in Creating Time and Place Utilities. It is important to raise the question as to whether the efficiency shown and the improvements made in the field of distribution have equaled or been as great as those in the field of production. Have the improvements in technique in creating form utilities been greater or less than those in creating time and place utilities? It can be answered quite definitely that the improvements in form production have far exceeded those in time and place utility creation. There is little doubt the greater efficiency was due to the use of improved machinery in the field of production. Between the years 1870 and 1930, the increase in workers engaged in securing raw material and in manufacturing finished products was much smaller in proportion than the increase in workers engaged in the distribution of these goods. In other words, the production of goods increased 800 per cent between 1870 and 1930; the labor power to produce these goods increased only 250 per cent, while employment in distribution of the goods increased 777 per cent. It must be pointed out that the problems were not the same in the two fields; while machinery was enabling production to be carried on more effectively, the field of distribution was being considerably expanded, becoming national or world-wide.

KEY POINTS IN UNIT 11

1. Certain utilities can be created for commodities by distribution.

2. *Distribution* has two distinct meanings in economic discussions. In this unit *distribution* means the moving of economic goods from one locality to another. These goods may be either raw materials to be used in manufacturing processes, or they may be consumers' goods. Farther along in this text *distribution* deals with rent, wages, interest, and profit.

3. The term *distribution*, in this unit, applies to moving economic goods from one place to another in order to create for them economic utilities, such as form, time, place, and ownership.

4. Economists especially emphasize three types of utilities—form, time, and place. Sometimes, certain factors are combined to create form, time, or place utility for economic goods. Both time and place utility are created for ice cream through distribution from the manufacturing plant to the retail dealer, who delivers it to a housewife at the proper time for a dinner party.

5. Form and place utilities are created through distribution channels for cotton grown in the South. The cotton is first taken to a cotton gin for removal of seeds; then it is shipped to a textile firm in New England; next form utility is added when it is made into garments; finally, through distribution by wholesale and retail stores, the cotton garments are sold to consumers in the Middle West.

6. In the process of converting raw materials into consumers' goods, it is evident that distribution enters into various stages of production by creating form, time, and place utilities.

7. Place utility is created for tropical fruits by distribution. Because abundant where grown, the fruits have little utility in their natural habitat; but when shipped to a region where there is a great demand for such fruit, place utility adds value to the product.

8. In this distribution process, the function of the wholesaler is to buy goods from the producer and distribute them to the retailers, who, either directly or indirectly, distribute them to the consumers.

9. Retail distribution, then, creates time and place utilities for consumers' goods. These goods may be handled in various ways: by chain stores, large department stores, or small retail stores.

10. It is easy to understand why transportation systems are important factors in creating form, time, and place utilities. These distribution facilities include railroads, electric lines, trucks, airplanes, waterways, and pipe lines.

11. Serious problems are still to be solved by the administrative executives of all these transportation factors. Railroads carry the heaviest burden since they transport 65 per cent of all interstate traffic in economic commodities.

12. Present economic conditions indicate that transportation facilities, which lie at the basis of distribution, still lag behind production in efficiency.

Unit 12. Methods and Research Aiding Production

A. Statistics.
B. Commercial and Industrial Research.
C. Standardization.

A. Statistics. There are few business men who do not recognize, today, how decidedly helpful statistics are in the operation of business. In fact statistics have become a necessity to the present-day business man.

The two major objectives of statistics are: (1) to furnish, as nearly as possible, equal knowledge of the basic industrial facts to all those engaged in an industry; (2) to enable each concern to regulate its prices and also its sales and production policies in harmony with economic conditions.

A man who is well informed as to the basic facts of his industry can proceed with more confidence in ordering the daily affairs of his business; he can follow a policy of continuity, fully recognizing the fact that he must from time to time feel his way and reverse himself.

It is not easy to measure the monetary value of the use of statistics, but some illustrations will serve to show how statistics are used. A certain cement dealer saved several thousand dollars on cement purchases by watching the cement and transportation statistics to determine the proper price at which to buy. Knowledge of market conditions through statistics enabled a firm of leather exporters to save from 2 to 4 cents a foot on leather for five years, besides saving a great deal of time.

The particular statistical items to be gathered will vary greatly with different industries. Statistics of value to one line of industry

may be of no value to another. All this must be decided by statistical experts fully acquainted with the details of the business.

The compilation of price statistics should be watched with particular care. They can be so collected and tabulated that they will produce no unlawful results. Knowledge of the prices at which sales have been made is an element in the equipment of a firm to enable it to meet competition intelligently. As past events such prices are one of the most important factors in business.

B. Commercial and Industrial Research. Industry finds itself continuously compelled to meet new situations, to work out methods for improving its products, and discover ways in which it can use its materials to the best advantage. This work comes in the field of research. In the physical sciences, chemistry and physics are probably the two that contribute most to the work. The question is, then: Shall the research be done by each plant separately or what is the best method? There are several methods, some of which will fit into one situation better than another.

One method is through co-operation with government laboratories by the research associate plan. By this plan, research associates are placed in government laboratories. These associates are scientific or technical graduates and are qualified to initiate and conduct research.

Another method is to arrange with a commercial laboratory to place several of their personnel to work on certain industrial problems. Still a third method is to establish fellowships in universities or other educational institutions. Finally, the industry may establish a laboratory of its own. If the industry is a member of a trade association, the research will be done in the laboratories that are usually maintained by all well-organized trade associations. Among the trade associations that have done much research work in their own laboratories are the Laundryowners' National Association, the National Fertilizer Association, and the Technical Association of the Pulp and Paper Industry.

C. Standardization. In economics, *standardization* means the adoption of an established uniformity in the measurement of quality and durability of an economic good. Important developments have been made in industrial standardization in mining, electrical,

mechanical, and other types of engineering, and standardization has been extended through the activities of professional, industrial, and trade associations. The process of standardization involves the singling out of certain products and materials and determining dimensions and performance properties for them in order to ensure their greatest possible industrial efficiency.

Standardization means the establishment of the following: first, definition of technical terms used in specifications and contracts and also technical abbreviations and symbols; second, specifications of composition, form, and structure for materials and equipment to be used; third, uniformity in dimensions necessary to secure interchangeability of parts and supplies; fourth, methods of test to determine standards of quality and performance; fifth, ratings of machinery and apparatus to be used under specific conditions; sixth, safety provisions and rules for the operation of apparatus and machinery in industrial establishments, safety codes, and standards of practice.

Standardization may be developed by an individual firm, by societies and associations, on a national scale, or on an international scale. Some of the advantages to be derived from standardization are: aids in stabilizing production and employment since it makes it safe for a manufacturer to produce stocks during slack periods, which he could not do safely with unstandardized articles; it lowers unit prices for the public by making mass production possible. This is illustrated in incandescent lamps and in automobiles. Since large stocks can be held by manufacturers, they can make deliveries more quickly and prices are lower. It decreases indecision both in producing and using a commodity and in this way lessens both inefficiency and waste. Standardization is also one of the principal means of adopting the results of research into use in the industries.

The Federal Government is interested in industrial standardization; first, as a purchaser it is interested in a wide range of specifications for materials and apparatus; second, in its large research bureaus it is interested in many problems in relation to standards.

The Bureau of Standards of the Department of Commerce is a national agency for standardization and industrial research. Articles that bear the Government approval are often those that the

public is most willing to accept. For example, the American Hotel Association accepted certain tests made by this bureau as the basis of their specifications for tableware.

There are two departments of the Government in which especially large quantities of commodities are standardized; that is, in the Army and the Navy Departments. The Government normally buys more than $1,000,000 worth of electric lamps per year made to specifications based on the Bureau of Standards' tests.

In private industry some of the fields in which standardization plays a large part are the automotive industry and the entire electrical field. In the electrical field all types of electrical machinery and apparatus are included, and also the manufacture, test, and performance of electrical generators and motors, mining and industrial locomotives, storage batteries, switchboards, and control equipment. In the automotive industry not far from 1,000 standards have been formulated and widely adopted, applying to engines, electrical systems, parts and fittings, materials, and so forth. This industry has two standards set up: the production standards and the replacement of parts and service standards.

In dealing with international standardization, it is impossible to make any definite statements. Before World War II, practically all the European countries had national standardizing bodies. The United States and Canada also had advanced far in the direction of national standardization. In South America, conferences had been held fostering such standardization for the whole Western Hemisphere.

KEY POINTS IN UNIT 12

1. A knowledge of statistics has become a necessity to the present-day business man.

2. Gathering statistics has two major objectives: (1) knowledge concerning basic industrial facts available on an equal basis to everyone engaged in industry; (2) regulation by each concern of its sales and production policy in harmony with existing economic conditions, and the setting of prices on its own products.

3. A business man well informed in the basic facts of his field can proceed to plan the organization and policy of his firm with more confidence because he knows the statistics concerning his own industry.

4. Statistical items to be gathered vary in different industries. Statistics of value to one industry may be of little or no value to a different

type of industry. For example, statistics valuable to a cement dealer would be of no value to a leather dealer.

5. Compiling of price statistics should be watched with particular care. Prices at which sales are made in a competitive market are important factors in business.

6. New adjustments to meet new situations must be made continually by industry; and new methods must be found to utilize materials to the best possible advantage.

7. Utilizing materials to the best advantage involves commercial and industrial research, which raises the question as to where the research should be done.

8. One workable method of research is co-operation with Government laboratories by the research associate plan. By this plan, associates are placed in Government laboratories. These associates may be scientific or technical graduates qualified to initiate and conduct research.

9. Another method of commercial research is for a concern to arrange with a commercial laboratory to put several of its personnel to work on certain industrial problems.

10. A third research method is for a concern to establish fellowships in universities and make facilities available for student research. This plan has been effective in the discovery of certain valuable vitamins.

11. Some industries maintain their own research departments. Examples are: the Laundryowners' National Association, the National Fertilizer Association, and the Pulp and Paper Industry Association.

12. An important factor in the development of improved methods of producing economic goods has been standardization of methods. By *standardization* is meant the adoption of established uniformity in the measurement of quality and durability of goods.

13. Standardization may be developed by an individual firm, by societies, or by trade associations on a national or international scale.

14. The standardization system makes it possible for a manufacturer to produce goods during a slack season. This he could not safely do without established standards.

15. A national agency for standardization and industrial research is maintained by the Bureau of Standards of the Department of Commerce of the United States Government.

16. Examples of standardization advantageous to both producers and consumers are those for the automotive industry and all types of electrical machinery.

QUIZ QUESTIONS ON CHAPTER IV

1. *Define* production. *Why is production important in a study of economics?*

2. *What is meant by the* machine age? *What important event marked the beginning of the machine age?*

3. How does the modern or roundabout method of production differ from the method used in the handicraft stage of industry?

4. Explain the meaning of capitalistic system.

5. What are some of the advantages of the capitalistic system and roundabout methods in the process of production?

6. Name four factors of individual exchange.

7. Name our national resources. How many of these are fundamental factors of production? Which two are the most essential?

8. What are the capital resources of a country?

9. In what ways is man power important to the economic strength of a country?

10. Has technology proved to be an advantage or disadvantage in the process of production? In the long run, is it detrimental to the wage earner?

11. Give an example showing that personal skill alone will not assure productivity.

12. Explain what is meant by the principle of diminishing returns. *Give an illustration of this principle.*

13. Name three important combinations or corollaries of productive and monetary units involved in the principle of diminishing returns.

14. Explain how elevators in a seventy-story building illustrate the principle of diminishing returns.

15. Name the two types of production. What raw materials and products are examples of these two types of production?

16. What are some of the most important raw materials produced in the Southern States? The Middle Atlantic States? The Middle West?

17. Is there an economic reason why manufacturing plants should be located near the source of supply? Give an outstanding example of manufacturing plants being far removed from the source of supply of raw materials.

18. What are some of the important influences which weld industry into a single national economy? What is the basis of all production?

19. Name three different forms of administration in industry.

20. How does a corporation differ from a partnership?

21. Explain the difference between stockholders *and* bondholders. *In times of depression, members of which group sometimes transfer their holdings in an attempt to avoid loss?*

22. In what way has power-driven machinery affected our economic development?

23. Of all our small unit industries, which is the most important?

24. Why is a study of risk *important in an economic discussion?*

25. Name three ways in which an enterpriser may protect himself against loss. How will a technically trained business man attempt to forestall losses in times of falling prices?

26. Define the terms supply *and* demand. *In our economic system, why are these important factors?*

27. Distinguish between cost *and* price. *What is meant by* fixed costs? Variable costs?

28. What items of expense are included in the term overhead?

29. What is shown by a demand schedule? *By a* supply schedule?

30. The attainment of what three achievements is the ambition of every producer?

31. Give an example of an increasing-cost industry; a decreasing-cost industry.

32. Was Adam Smith correct in classifying professional skill as unproductive?

33. Give two meanings for distribution *as used by economists.*

34. How may utilities be created for commodities? Give examples of how form, time, and place utilities may be created.

35. What part does the wholesaler *play in the economic process?*

36. At the present time, which is more efficient in our economic system, distribution *or* production?

37. Why are statistical data important to the present-day business man? What is meant by standardization?

38. What three different methods of commercial research are available to the industrialists at the present time?

39. What national agency is maintained for the benefit of industry?

40. In what industries is standardization of particular advantage to both producer and consumer?

Chapter V

EXCHANGE OF COMMODITIES AND SERVICES

OBJECTIVE: Importance of exchange as an economic process involving commodities, services, markets, money, banks, and foreign trade.

PREVIEW: *Many factors are involved in the exchange of commodities and services. Among the most important of these factors are markets, money, banks, and foreign trade. One of the oldest economic institutions in existence is the market. In this study of exchange, the development of the market is traced through various stages of its history from the barter between two frontiersmen in an early American trading post to our present-day complicated banking system. As population increased and towns were organized, trading posts were gradually replaced by more permanent markets where pioneer men and women met to exchange hand-made goods produced in their own homes. Thus the market became a place where constantly increasing numbers of traders met. In the process of exchanging commodities, values were determined and prices agreed upon by the parties concerned. In the course of time, with the increasing expansion of trade, the term "market" took on new meanings. For example, today we may speak of the Chicago market for fresh strawberries or the New York market for celery. In such a case, the producers and buyers are miles distant from one another. Markets may be highly organized; for example, the stock exchanges and boards of trade. In present-day markets, prominent roles are played by supply and demand. A market may be local, or national, or world-wide in extent.*

In the early days of our country, when goods were exchanged by bartering, it was sometimes difficult for a person who had one type of goods to find a trader who wanted these goods and had a kind of goods needed by the first person mentioned. Before white men appeared on the American scene, the Indians had recognized the inconvenience of the barter method and had worked out a means of exchange with wampum, which was a crude form of money. The Indian's use of wampum was a forerunner of our present monetary system. In a broad sense, currency may include checks, bank notes, drafts, or any commodity acceptable as a medium of exchange when passed from one person to another. Currency consists chiefly, then, of money and

bank deposits against which checks can be drawn. Money is any form of goods adopted as a monetary unit and which will be accepted in exchange for other goods. Each country has its own particular form of currency. The founders of the United States Government adopted the dollar as the standard monetary unit for our country. We now have three distinct forms of money—paper, metallic, and subsidiary coins.

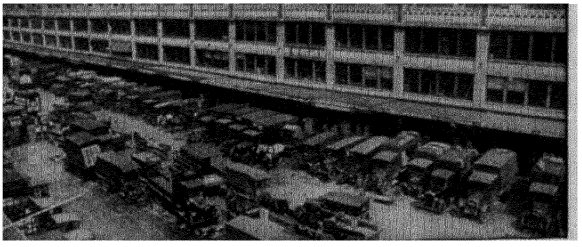
The adoption of money as a means of exchange created great possibilities for trading on a large scale. Closely associated with this economic expansion was the development of our banking system. The average person is apt to think of a bank in a limited sense, such as the place where he cashes his checks or maintains a savings account. However, banks use many forms of commercial paper, which tends to facilitate greatly the numerous processes involved in the exchange of commodities and services. The First United States Bank was established in 1791. The ever increasing development of our national resources created a demand for more banking facilities from time to time, and in 1863 the National Banking System was established. Then, in 1914, the Federal Reserve System was inaugurated to supply deficiencies of the National Banking System. Under the Federal Reserve System, which still prevails, the country is divided into twelve Federal Reserve Districts, with a Federal Reserve Bank located in each of these districts. These banks are widely distributed, extending from Boston, Massachusetts, to San Francisco, California. Today, banks are important factors in our national life, since they handle credit and other matters relating to exchange, especially foreign trade. However, in all our study of exchange we must not forget that, just as human desires are the basis of all production, in the same way human desires are the foundation of all exchange. This chapter deals primarily with exchange of commodities and services, emphasizing the various roles played by markets, money, and banks.

Unit 1. The Market

A. The Market Defined.
B. Types of Markets:
   1. Competitive Market.
   2. Monopolistic Market.
   3. Monopolistic-Competitive Market.

A. The Market Defined. In order to define *market* a number of uses of the word must be included. Primarily a market is the place

where buyers and sellers exchange goods. They also exchange title to the goods. It is assumed that there is an accurate knowledge on the part of the buyers and sellers, of conditions in the market, as, for example, the amount of the supply and the probable demand. A market may be local, or national, or world-wide in extent. It may handle perishable goods or durable goods, tangible property such as cattle, or intangible property such as shares of stock in a corporation. A *market*, then, is an area within which demand and supply meet to establish a price; it is the place where buyers and sellers meet each other and where, since exchanges take place, values are established and, therefore, prices are agreed upon by the parties concerned.



Chicago Produce Market, Said To Be the Largest in the World, Accommodates about 500 Different Concerns

Markets are among the oldest economic institutions in existence. In the early days of our country men and women who produced goods at home by the hand process brought these goods, oftentimes over long distances, to the market to trade them for other goods. In Europe, the markets were frequently called *fairs*. Some of these fairs on the continent of Europe were located at Lyons, in France; Novgorod in Russia; and Leipzig in Germany.

The market may be considered from the point of view of the product. Wheat is sold in a world market. It is produced on every continent, and the quantities planted, harvested, bought, and sold are watched in every wheat-growing country. In peacetimes the most commonly quoted wheat price is the one given out at Liverpool. There is a market for radios, another market for secondhand cars, and so on; in each case the market is considered entirely with reference to the commodity dealt with.

The market may be considered, also, from the point of view of the geographical area, as the Chicago market for fresh strawberries, or the New York City market for celery. If we are considering the market geographically, it may be an area as limited as a small town or as extensive as the world. Markets may be highly organized, as for example the stock exchanges and the boards of trade, or may be in no way centralized as in the case of the great mass-production industries.

B. Types of Markets. Regardless of whether a market is local, national, or world-wide in extent, the type of control under which it operates is highly important.

1. The Competitive Market. What is known as a purely *competitive market* is a market in which buyers and sellers are trading in a homogeneous commodity; that is, a commodity in which all units of the goods are as nearly as possible identical. There must be, also, a large number of both buyers and sellers engaged in trading. This will assure those concerned that no single buyer or seller will have any considerable influence on the price in the market.

This may be illustrated by the fact that in certain years as much as 700,000,000 bushels of wheat are produced in the United States. If a certain farmer should raise 1,000 bushels of wheat, this quantity would be so small, in comparison with the entire amount on the market, that it would not affect the price of wheat, whether or not the farmer brought it to the market.

The third condition necessary in the perfectly competitive market is that the buyers and sellers should be entirely free to make their decisions; that is, they should be able to choose voluntarily without any form of intimidation. Moreover, there should be extensive knowledge on the part of the buyers and sellers as to the conditions of the market, such as the quantities on hand and the movement of prices.

There are, of course, few commodities that can be sold under these conditions. Perhaps the best examples of such a market are the grain and agricultural markets. The competitive market is best illustrated by the commodity exchanges and boards of trade.

A further question concerning the competitive market is: Exactly how does it work? In a *competition* two or more persons or

organizations are striving with each other to secure the same object or end. Of course, this word is not confined to economics; for instance, six boys may all be striving for the opportunity to take part in an oratorical contest. This is competition because all the boys are working for the same end.

Take an example in economics: assume that many farmers have been harvesting their potatoes and bringing them to market. Competition exists among these farmers because each of them wishes to dispose of all his potatoes. If there are few potatoes on the market, the price may already have been set at 40 cents per bushel. The buyers will also compete with each other to secure potatoes. The more potatoes brought to market, the lower the price may fall in the long run. If a buyer meets a seller face to face a transaction called *bargaining* will probably begin. Competition takes place only among those who wish the same thing, hence in this case it may take place among the buyers, for they all wish to gain possession of potatoes; or competition may also take place among the sellers because they all wish to dispose of their potatoes; but *bargaining* takes place between buyers and sellers since they are the groups with opposing desires, one group wishing to buy, the other group wishing to sell.

It is assumed that because of this process of competition on both sides of the market and also because of any bargaining which may take place, the *long-run price* arrived at in the competitive market is a price that will just cover the cost of producing the last unit of the good sold in the market.

Since the organized markets come so near being purely competitive markets, they have been used here as illustrations of such markets. Of the organized markets, take first the boards of trade. At present, various grains, sugar, cotton, copper, and other commodities that can be graded are handled on the boards of trade. Tobacco is now so handled, but, owing to the difficulty in grading, it was comparatively late in being bought and sold on the boards of trade. On the boards of trade are members who both buy and sell contracts for the commodities being handled. For example, suppose that a manufacturer of flour, a miller, finds that at a certain date he must have wheat to be converted into 5,000 sacks of flour. He

knows the grade of wheat he needs and communicates with a dealer on the board of trade, asking him to arrange for the delivery of the necessary quantity of wheat at a given date. The dealer takes the order and sells to the miller and, at approximately the same time, buys the quantity desired from a farmer or at a grain elevator. The relation of this transaction to the process of hedging is at once apparent. The dealer acts as a middleman, both selling and buying. A producer, for example, a wheat farmer, is ready to sell to the dealer or an elevator company, while those who wish to utilize the goods in manufacturing processes stand ready to buy the raw materials they need.

Besides the boards of trade, which deal in commodities, there are the stock exchanges, which deal in securities such as stocks and bonds. A stock exchange, as in the case of the board of trade, has a fixed place of meeting and there are brokers and dealers who handle the buying and selling; that is, members of the stock exchange operate on the floor of the exchange. There are two functions of members of the exchange—brokerage and trading. A member may choose to act in either capacity, but not in both in the same deal. The broker buys and sells securities for someone else, on a commission; the trader, or dealer, acts as his own agent, buying and selling only for himself and depending entirely on making profits. All

York Curb Exchange

Photo by Acme Newspictures, Inc.

bonds of a certain issue will be homogeneous and, therefore, will be considered as something that can be handled in a purely competitive market.

The same is true of a block of the common stock of a given issue being marketed on a stock exchange. Again let us analyze what happens. There is a man who has saved $1,000 which he wishes to invest in the stock of a certain company. He arranges with a broker to buy 10 shares of stock at $100 each for delivery to himself. The broker is a middleman and the buyer is an investor. The broker may secure the stock from the company which issues it or from some other broker who has it on hand. The ultimate buyer is the man who saved $1,000 to invest; the ultimate seller is the company who issued the bonds; between them stands the broker as a middleman who does the selling and buying in this transaction. The two largest stock exchanges in the world are those of New York City and London.

In a purely competitive market, prices are set in accordance with the supply and demand for a certain type of goods. If the supply of goods and the demand for goods were equal in amount, the price that reflects such a condition is known as *equilibrium price.* It is a price that clears the market, and the buyer of the last unit pays a price that will cover the cost of that final unit produced. But if constant changes of supply and demand are going on, there must be a constant readjustment of price and also a constant adjustment of consumption and production to the changes in the price.

In Fig. 19, OY is the scale line on which to measure price, cost, or profit; OX is the scale line for measuring the quantity of the commodity. DD' is the demand curve and CS–$C'S'$ is the cost-supply curve. These two lines cross at the point A. This is the point of equilibrium where the amount brought to the market equals the amount taken from the market; that is, at the point A the amount brought to market (along the line CS–$C'S'$) is shown on the quantity line, OX, to be OB; at the point A the demand (along the line DD') is also shown to be OB on the quantity line OX. Then $OB = OB$, which indicates that the supply equals the demand and a state of equilibrium exists. Moreover, the line AB represents the *equilibrium price* because it represents the *cost* at A on the cost-supply line CS–

$C'S'$ and it also represents the *price* at A along the demand line DD'. Therefore, the line AB represents the price that the last buyer pays and the cost of the last article sold. This is the point to which pure competition would always, in the long run, drive the price; a point where there is little or no profit.

Now, looking at Fig. 19, assume that only ON units are put on the market; here, demand would be willing to pay PN for the last unit of the commodity located at N. Since it cost only NK to produce that unit, it would be sold at a profit of PK. As there are many producers, they will expand their production in order to get the

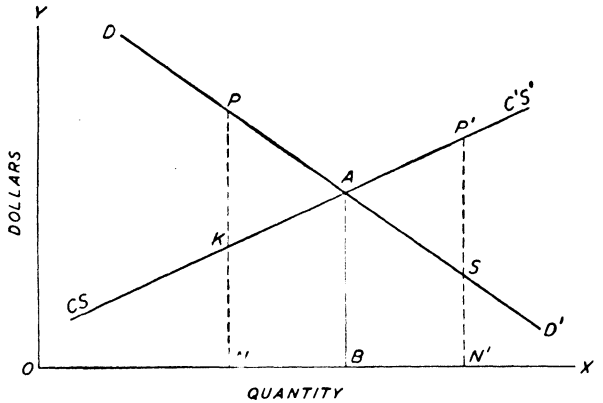


Fig. 19. Equilibrium Price under Pure Competition

advantage of this high profit, but their competition with each other will in the long run pull prices down from P to A; that is, prices will move toward equilibrium. Assume now that the producers go on producing beyond B toward N'. Now the cost per unit has risen to $P'N'$, but the buyers are willing to pay only SN' for the unit at N'. That unit is sold at a loss of $P'S$ and now there will be a tendency for some producers to curtail production, and perhaps the marginal producers will leave the business; the quantity will move back toward B and the price will come again in the long run to AB.

2. *The Monopolistic Market. Monopoly*, at least so-called *pure monopoly*, means that the producer of a good has control of the quantity produced and the price that is charged for it. As is the case with pure competition, there are comparatively few examples of

pure monopoly. Perhaps the anthracite coal industry is as near such a monopoly as any in America. A monopoly assumes that there is but one seller in the market, that there are no substitutes that might displace the article, that other firms cannot succeed in getting started and so begin competition, and, finally, that the Government does not step in and regulate the price of the commodity.

There are certain types of monopolies to be considered. Patents or copyrights granted by the Government are sometimes spoken of as social monopolies or general welfare monopolies. The person holding such a patent or copyright has the control for a limited time over the quantity produced and the price at which it sells.

Perhaps the most important of the monopolies is the group known as *natural monopolies*. These include telegraph and telephone, electric lighting, gas, railroads, and street railways. In all of these the monopoly element is determined by the nature of the business. In the early days of the telephone, many business houses used lines of two or three companies. Each company served a limited number of subscribers. Today, there is but one great company, with lines that reach every village and a vast number of the homes of the nation. Through this means, a convenient, wider, and more accurate service has been secured to the public.

In most cities but one franchise is granted to a gas or electric-light company. It is no longer thinkable that several companies, for instance, should be given the right by a city to put pipes under the street, or that several companies should set up telephone poles over the same route to serve the public. Such an arrangement would mean poor service and a great waste of energy and materials. The post offices and the public schools may also be considered as monopolies. This is due to their nature and the fact that they come under a single control, in this case the Government. Post offices are under the Federal Government; the schools, under various local governments.

The significance of monopolies to the public should be considered. The monopoly is usually a large-scale industry that has had the advantage of research and all the other methods that large-scale industry can use to bring about lower unit costs. As a rule such industries can, if they wish, give better service than a small indus-

try; the difficulty lies in the fact that when the monopoly controls the entire output of goods and the price, the monopolist may charge a price considerably above cost unless there is some regulation of its market by the Government. While under competition some regulation may be exercised by other competitors in the market, there is no competition for the monopolists. The great benefits resulting from large-scale production, if passed on to the consumer and not absorbed by the monopoly by charging the public high prices, would result in improved conditions for the consumer. We know that there are great wastes in competition, but the benefits of the large-scale production of a monopoly will probably not be passed on

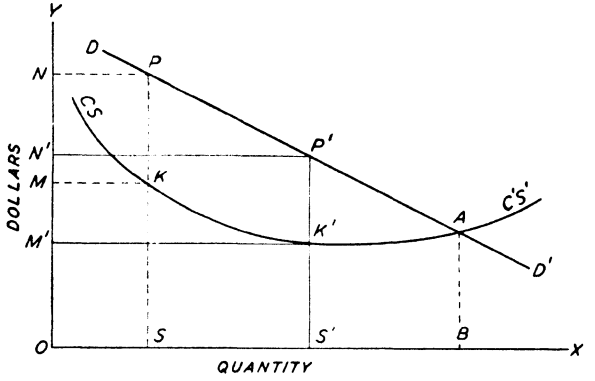


Fig. 20. Price Determination under Pure Monopoly

to the purchasers unless this is brought about by Government control. It would be well before leaving this subject of monopoly to show by a simple diagram, Fig. 20, how prices may be set under conditions of uncontrolled monopoly.

As usual, along OX quantity is indicated, and along OY, price or cost or profit. DD' is the demand curve and CS–$C'S'$ is the cost-supply curve. If this were a competitive industry, the price in the long run would be AB, and quantity of goods the public would get would be OB. But this is a diagram of a monopoly. The monopolist will set his price and limit his output at the place that will give him the largest monopoly profit. Suppose the quantity OS sold at the price PS. This means that his output OS cost him only SK per unit and that OS units as a whole cost him $OSKM$, the total cost being

thus represented by a rectangle. Then the total selling price of OS is $OSPN$ and the total monopoly profit would be $MKPN$ or the difference between $OSPN$ and $OSKM$. He would never sell at AB price, for that would not give him any profit. However, he might sell OS' units at $P'S'$ price. This quantity sold at this price seems by inspection to give a larger rectangle of profit $M'K'P'N'$ than the profit derived if only OS units were sold. At any rate he will try to get the largest monopoly profit. (A more complicated diagram might be drawn to show, theoretically, where he would stop production.)

3. Monopolistic-Competitive Market. The following is a brief review of market conditions which led to the development of the monopolistic-competitive market. As outlined in this text, the competitive market before 1933, though not perfectly or purely competitive, was accepted by many economists as the prevailing and desirable situation for exchange of commodities. These economists believed this type of system made possible the operation of free enterprise. While many admitted that a perfectly competitive market was rare, it was assumed that such a situation was the proper theoretical foundation from which to work. The competitive-market theory embraces the idea that competition is a force that regulates output and prices and thus gives the public the best services that can be secured. Moreover, such a system enables small producers to survive.

The advocates of the competitive type of market claim that it does not need regulation by the Government; they maintain that if prices go too high on the market, buyers will decrease in number, the demand will fall off and gradually the price will fall; then those who supply the commodity will bring less to the market, and the demand will begin to rise. This theory predominated throughout most of the nineteenth century. To be sure a number of writers in economics began to recognize that strong elements of monopoly were beginning to grow up. Then political interest developed, based on opposition to the growth of monopoly. Antitrust laws were passed, and an effort was made through the Sherman Antitrust Act (1890) to stop any restraint of trade. This did not succeed to any great extent. Industries went on expanding. Six years after the passing of the Act, Justice Oliver Wendell Holmes, in a court decision in 1896, said:

It is plain from the slightest consideration of practical affairs, or the most superficial reading of industrial history, that free competition means combination, and that the organization of the world, now going on so fast, means an ever-increasing might and scope of combination. It seems to me futile to set our faces against this tendency. Whether beneficial on the whole, as I think it, or detrimental, it is inevitable unless the fundamental conditions of life are to be changed.

From 1936 into 1941, a committee called the *Temporary National Economic Committee* made an investigation of the concentration of economic power. Several large industries were investigated, including iron and steel, petroleum, life insurance, and milk. The inquiry revealed an increasing tendency toward the growth of large-scale industry. The final report of the committee took the position that American industry "is committed to the policy of free enterprise; tradition, common sense, and the antitrust laws concur to impose a competitive pattern upon American industries." The conclusion was reached by the committee that "Once it is realized that business monopoly in America paralyzes the system of free enterprise on which it is grafted . . . action by the Government to eliminate these restraints will be welcomed by industry throughout the nation." When the committee uses the expression "by industry throughout the nation," it leaves the impression that all industries in the country wish to see free and unrestrained competiton return. Is this true of the large industries that have grown great and powerful through the elimination of many competitors? It would be true among the small industries.

It may be stated here that the conclusion of the committee is accepted by many economists but not by others. The latter group of economists claim that it is useless to attempt to destroy the large-scale industry from which much of competition has disappeared, such elimination being welcomed by the large producer. These economists hold that an effort to restore competition would simply mean the restoration of wasteful and inefficient methods, and that the policy to be used is that of some regulation of large industries by the Government, such as that exercised over railroads.

In 1933, two books were published. The title of one is *The Theory of Monopolistic Competiton* by Edward Chamberlin of Harvard University; the other is *Economics of Imperfect Competition* by Joan Robinson of Cambridge, England. Both authors set forth a new

theory called *monopolistic competition.* It assumes that there are many producers of a given article, not just one as in monopoly. This theory also differs from competition in that there is a difference in the units of the product. That is, there are many producers, but their products are not homogeneous as it was assumed they must be in pure competition.

To illustrate: suppose you have been accustomed to using Glisterine as a mouthwash and will buy no other. There is but one company that can produce Glisterine, only one company that has the right to use this name for its brand of mouthwash. Since there is but one company that can produce Glisterine, there is a monopoly element in its production. In other words, it is produced under monopolistic conditions since only one company provides the public with Glisterine. However, when it comes into the hands of the retail druggist, there are several brands of mouthwash on the shelves, all competing with each other. Here is where the competitive element enters into the market, and such a market can be called a *monopolistic-competitive market.*

The outstanding characteristics that distinguish monopolistic competition are: the various products manufactured to satisfy the same want or desire are different; that is, they are not identical; also, there are a large number of sellers as well as buyers. To illustrate this still further, suppose that there are a dozen different producers of automobiles. Those manufactured by one company are called *X autos*, another company produces automobiles known as *M autos*, and so on. Each of these types of automobiles is produced by only one company; this is the monopoly element. But each type has certain gadgets or certain details of construction that differ from the other types. Each company tries to impress the consuming public with the importance of these special features of its car. Here is the element of competition: X car has a market and M car has a market, and these with all other cars are competing in the market to secure as many buyers as possible.

The new group of economists, who are emphasizing the monopolistic-competitive analysis of the market, hold that it is more nearly true to the actual conditions that exist, that pure or perfect competition and pure monopoly never exist to any considerable

extent, and therefore, being little more than hypothesis or theory not representing facts, cannot be used as accurate interpretations of actual conditions.

On the other hand, those who hold to the theoretical positions involving pure competition and pure monopoly point out that their work is necessary in order to analyze the more complex theory of monopolistic-competitive economists, and that the latter have had to use the work of their predecessors as a foundation for much of their analysis. It is true that the monopolistic-competitive economists do usually begin their analysis with the assumption of pure monopoly. But they do not stop there; they proceed to show how competition and monopoly, neither one of them pure, interact with each other in actual society to determine prices and affect production. Economists of this new school of economic thought, which we have called *monopolistic-competitive economists*, lay much emphasis on mathematics and statistics.

KEY POINTS IN UNIT 1

1. In order to define a *market*, several meanings of the word must be considered: (1) A *market* is primarily a place where buyers and sellers meet to exchange goods. (2) It is an area within which demand and supply meet to establish a single price. Since goods are exchanged, values are determined and prices agreed upon by the parties concerned. (3) *Market* may also mean the circumstances under which goods are exchanged.

2. A market may be local, national, or world-wide in extent.

3. The type of control over a market is important. There are three types of markets: competitive, monopolistic, and monopolistic-competitive markets.

4. A *competitive market* is one in which a large number of buyers and sellers meet to exchange commodities of the same kind; that is, one in which all the units are as nearly identical as possible. In a competitive market, buyers and sellers must be free to make decisions without any form of intimidation.

5. A *monopolistic market* is one in which the producer of a particular good is the only seller in the market, there is no substitute for the good, other firms cannot begin competition, and the Government does not regulate the price. There are few markets which are purely monopolistic. The anthracite coal industry approaches this type.

6. The most important of the so-called monopolies are those known as *natural monopolies*. These include the utilities, such as electric lighting, gas, telegraph and telephone, railroads, and street railways.

7. Economists admit that pure competition is rare, but pure monopoly is likewise rare. It is generally accepted, in theory at least, that these two types interact with each other in actual society to determine prices.

8. In recent years, a committee called the *Temporary National Economic Committee*, after investigation of economic power reported as follows: American industry is committed to the policy of free enterprise; tradition, common sense, and the antitrust laws concur to impose a competitive pattern upon American industries.

9. A *monopolistic-competitive market* is one where there are many producers; each has a monopoly of his good, but this good is in competition with similar goods produced by other enterprisers.

Unit 2. Money

A. Money Defined.
B. Types of Money:
   1. Metallic Money.
   2. Paper Money.
   3. Subsidiary Money.
C. Fundamental Monetary Concepts.
   1. A Monetary System.
   2. Coinage.
   3. Legal Tender.
   4. Bimetallism.
   5. Gresham's Law.
   6. The Value of Money.
D. The Work Money Performs:
   1. Aids in Making Exchanges of Goods.
   2. Measure of Value and Common Denominator of Value.
   3. Standard of Deferred Payment.
   4. A Method of Saving.

A. Money Defined. In the markets of our country in early days, when men came together to trade goods these exchanges were made through the *barter* method. Barter was a form of trading; one kind of goods was exchanged directly for another type of goods. It was not always an easy matter for a person who had one type of goods to find someone who wanted these goods and, at the same time, had a kind of goods that the first person wanted. The use of money changed the method of exchange. Instead of exchanging one

type of goods directly for another type of goods, something was selected, a certain quantity of which could be exchanged for a certain quantity of another commodity. For example, the Indians used *wampum*—beads made from shells. Instead of trading corn for furs, they exchanged a certain amount of wampum for furs, and the seller of furs could then exchange this wampum for corn. Wampum was a crude form of money. Today, broadly speaking, *money* is any commodity which passes freely from one person to another in making exchanges.

B. Types of Money. In studying the different kinds of money, it is well to separate it into the three general divisions: metallic, paper money, and subsidiary coins.

Wampum

1. Metallic Money. The different types of money in circulation in the United States are shown in Table III, which has been brought up to August, 1940. This table shows the effect of all monetary legislation in the United States up to that date. In addition to the kinds of money, Table III shows: (1) the amount of money in circulation in August, 1940, compared with the amount in circulation in 1932 when the country was experiencing a low point in the depression; (2) the table indicates by what governmental agency the different types of money were issued; (3) the security which backs any kind of money is shown; (4) its legal tender status is given, also. Since the passing of the Emergency Banking Act on March 6, 1933, there have been no gold coins in circulation. Silver dollars and the subsidiary coins—half dollars, quarters, dimes, nickels, and pennies—are the only metallic money in circulation. After the Emergency Act of 1933, paper money could no longer be converted into gold on demand. Gold coins have been largely reduced to gold bullion which is held in the United States Treasury. In 1934 the Gold Reserve Act was passed allowing the President to reduce the weight of gold in a dollar by not less than 40 per cent and not more than 50 per cent. A dollar had formerly contained 25.8 grains of gold, nine-tenths fine, but under this law the dollar was reduced to $15\frac{5}{21}$ grains, nine-tenths fine. The Silver

TABLE III—CIRCULATION STATEMENT, AMERICAN MONETARY SYSTEM

September, 1932, and August, 1940

Kind of Money	Amount in Circulation (in Thousands)		Issuing Agency	Security or Backing	Legal Tender Qualities in 1932*
	Sept. 1932	Aug. 1940			
Gold Coin and Bullion	$ 444,942	.....	Federal Government	.....	Full — for all debts
Gold Certificates	644,253	$ 66,121	Federal Government	In 1932, Gold Coin; Bullion in 1940	Full
Standard Silver Dollars	29,421	47,174	Federal Government	.....	Full
Silver Certificates	358,631	1,604,915	Federal Government	Silver coin or bullion	Not legal but receivable for all gov't dues
Treasury Notes of 1890	1,219	1,162	Federal Government	(See U.S. notes)	Full
Subsidiary Silver	256,660	389,183	Federal Government	.....	Up to $10 only
Minor Coin	112,851	174,265	Federal Government	.....	Up to 25c only
Greenbacks or United States Notes	286,066	257,706	Federal Government	$156,000,000 in gold back of greenbacks and treasury notes of 1890	Full except on import duties and interest on public debt
Federal Reserve Notes	2,731,360	5,334,203	12 Federal Reserve Banks	40% gold and remaining 60% in gold, com'l paper, or U.S. securities	Not legal tender but receivable for all gov't dues
Federal Reserve Bank Notes	2,691	21,937	Federal Government	Gov't bonds or lawful money	Same as Fed. res. notes
National Bank Notes†	785,256	162,314	National Banks	Gov't bonds or lawful money	Same as greenbacks
TOTALS....	$5,653,350	$8,058,981			

Metallic Monetary Stock held in the United States Treasury:

Year	1932	1940
Gold‡	$3,026,536	$20,912,755
Silver bullion	.....	1,368,289
Standard silver dollars	501,081	472,430

Gold has been nationalized; neither gold nor gold certificates may be used as media of exchange except between the U. S. Treasury and the Federal Reserve Banks.

*All money became full legal tender by law of 1934.
†National bank notes were retired, law of 1935.
‡Gold valued at $20.67 per ounce in 1932; by law of 1934, rose to $35 per ounce.

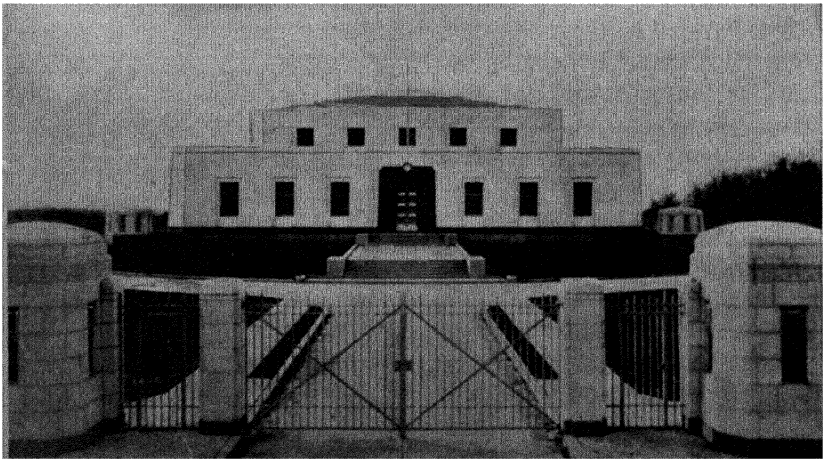
Purchase Act of 1934 provided for the purchase by the United States of silver to increase the monetary store of the country until it should be 25 per cent silver; in other words, it should consist of one part silver to three parts gold. All silver not used in the arts and in industry belongs to the Government, since silver was nationalized in 1934. Both gold coins and gold certificates were taken out of circulation in 1934. As already stated, the gold coins are held in the United States Treasury; the gold certificates are handled only between the Federal reserve banks and the Federal Treasury.

2. Paper Money. There are several kinds of paper money in circulation. Bank notes appear in three different forms: the Federal reserve note, the Federal reserve bank note, and the national bank note. The Federal reserve notes are to all intents and purposes bank notes, although they are an obligation of the United States Government.

The national bank notes were created at the time of the Civil War by the National Bank Act of 1863, with the provision that the national banks issuing such notes could circulate an amount equal to the deposit of United States Government bonds which the bank had made with the Treasurer of the United States.

The Federal reserve bank notes were created by the Federal Reserve Act of 1913. There was a wish to retire the national bank notes and if in the process of retiring these it seemed necessary to

Depository—Fort Knox, Kentucky *Underwood & Underwood*



maintain the circulation of money at a certain point, the Federal reserve bank notes were to be used to hold the circulation at the necessary point while the national bank notes were retired. Twice only have the Federal reserve bank notes been issued in considerable numbers; first, when it seemed necessary to increase circulation during World War I; second, in 1933 during the period of depression. In both cases the notes were shortly retired when they had served their purpose. The notes were issued under the authority of the Federal Reserve Board.

Like the Federal reserve bank notes, the Federal reserve notes are issued under the authority of the Federal Reserve Board by the Federal reserve banks when the bankers find there is a shortage of money in circulation.

The *greenbacks* or United States notes were provided for in 1863 as a part of the Civil-War financing. Since these notes were not redeemable in gold or silver, and were secured only by the credit of the Government, they were never popular with the people, who considered the notes as merely *fiat money*. However, in 1879, when the Federal Government created a metallic reserve and arranged for the redemption of the greenbacks in gold, the confidence of the people was restored. Since that time these notes have circulated on a par with other currency. The Thomas amendment to the Agricultural Adjustment Act, passed in 1933, provided for the issuance of United States notes to an aggregate sum of $3,000,000,000.

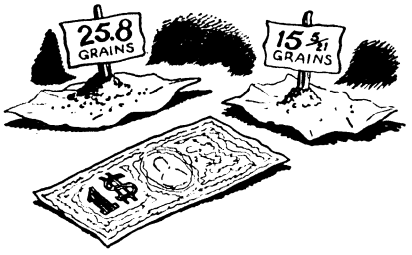
A small amount of paper money is in the form of Treasury notes of 1890, called the *Sherman notes*. As indicated in Table III, they have been full legal tender from the beginning.

The only other forms of paper money are the gold and silver certificates. The former were taken out of circulation among individuals in 1933 and pass only between the United States Treasury and the Federal reserve banks. The silver certificates originated in 1878. They are redeemable in silver coin and are thus backed either by silver coin or silver bullion, dollar for dollar. Up to 1933 they were not legal tender but were then made legal tender by the Act of 1933.

3. Subsidiary Money. The so-called subsidiary coins are half dollars, quarters, ten- and five-cent pieces, and pennies. These

either contain less money metal than the value at which they circulate or are made of cheap metal. These coins are also known as *token money*. Quantities of subsidiary coins issued are limited to what are considered necessary amounts.

C. Fundamental Monetary Concepts. Before beginning a discussion of any monetary system, it is necessary to understand the meaning of the terms commonly used. These are: *standard* and *monetary unit*. In the United States, the Mint Act of 1792 established the dollar as our *standard monetary unit*. Standard money contains bullion the value of which is exactly equal to the value of the money. The Gold Standard Act of 1900 fixed a definite weight for our unit of value, the dollar, at 25.8 grains of gold. Nine-tenths of this weight was to be pure gold, the remainder was to be alloy to insure durability. From 1900 to the spring of 1933 our country was on a gold standard.



Effect of Gold Reserve Act on Gold Content of the Dollar

1. A Monetary System. Some monetary experts describe the condition created by the Gold Reserve Act of 1934, as a *gold-bullion standard*. The original gold dollar contained 25.8 grains of gold, but by the Gold Reserve Act (1934) the President was allowed to lower the amount of gold in the dollar to $15\frac{5}{21}$ grains. Following the passage of this Act, neither gold coin, gold certificates, nor gold bullion were permitted to circulate. While there is no standard money in circulation, the United States Treasury contains a large stock of gold. The unit for our currency is the dollar.

2. Coinage. *Coinage* refers only to metallic money which now consists of silver dollars and the *subsidiary coins*. In connection with coinage, there are certain monetary terms which must be kept in mind. One is *free coinage*, another is *brassage*, and still another is *seigniorage*. Under *free coinage* a person could take metal to the mint and have it changed into coins. Between 1900 and 1933, gold was the only kind of money that was coined freely in the United States. There was only a limited coinage of silver. The Government pur-

chased the silver bullion and was responsible for the amount coined. When the Government coined metal into money for individuals, a charge called *brassage* was made. This charge was just enough to meet the cost involved. *Seigniorage* means the coining of metal into money by the Government for an individual when the charge more than covers costs of coinage and thus a profit is made on minting of the money.

3. Legal Tender. An expression widely used in connection with money is *legal tender*, which means money that must be accepted by a creditor when offered to him by a debtor. In 1933, Congress granted legal-tender power to all coins and currencies of the United States, including the notes of the Federal reserve and national banks. The expression *lawful money* is sometimes used in place of legal tender and it is entirely correct to use the two terms interchangeably.

4. Bimetallism. A condition in which a country allows two metals to be used as a standard is referred to as *bimetallism*. These two metals are coined freely in relation to each other, that relation being a fixed ratio.

5. Gresham's Law. When a country is minting two metals, the one that is overvalued at the mint will be brought in larger quantities for mintage than the other metal. That is, if the metals are gold and silver, there will be more silver minted than gold. This brings into operation what is known as Gresham's law, which states that when two types of standard coins are used in circulation at the same time, the cheaper money will stay in circulation because the debtors will pay with the cheaper money. However, this will happen only when coinage of both metals is unlimited and free and when both are full legal tender. In such a case, the amount of the overvalued money in circulation must be sufficient for business requirements.

6. Value of Money. The value of money means the quantity of goods money will exchange for at a given price level. To illustrate, when we say *prices are high* we mean that in the market a dollar buys less than it did formerly. For instance, during wartime a steak may sell for seventy-five cents per pound, although a few months before the war a similar steak could be bought for fifty cents per pound. A pair of shoes that sold for $4 before the war may cost $5 or more

during wartime. In both of these cases the value of money has fallen since each dollar buys less goods than formerly, and each dollar buys less because the prices for goods and services have risen. The economist will say the purchasing power of the dollar has fallen since each dollar buys less goods. All this becomes clear when we remember that the value of any dollar is measured by the goods or services it will exchange for at any time or place.

D. The Work Money Performs. Trading or exchange of goods involved many difficulties when men depended entirely upon the barter method. If one man had an article he wished to trade, it was often hard for him to find another person who had something that could be traded exactly for his article.

1. Aids in Making Exchanges of Goods. As markets increased in size and traders began to exchange goods produced in widely separated areas, to be delivered at different times, it became necessary to find some better means for making these exchanges. For example, assume that a person who can produce hats needs a pair of shoes. How can he get his shoes? He sells his labor to a hat factory where he works and which pays him a wage; this wage being paid in money, he can exchange a part of it for a pair of shoes.

Another instance, a shoe factory may sell its shoes to a shoe dealer and for the exchange receive money. Hundreds of customers come to the store with money they have earned in various ways and spend a part of it for shoes. The money enables these exchanges to be made readily. Therefore, money fosters division of labor. Today, men do not produce much for their own use, but they work for wages in order to obtain money that gives them purchasing power, so they can buy the various articles they desire.

2. Measure of Value and Common Denominator of Value. Another important function of money is to measure the value of goods or services. Imagine there is no such thing as money in the country in which you live. Assume that you go into a store and see a sweater you want. For what would you ask? You cannot ask its price, for *price* is value expressed in terms of money. If there is no money, what would you carry into the store to exchange for the sweater? You cannot take a pig, for you do not know the value of the pig because there is no money to represent its value; moreover you are

not sure that the man who owns the store wants to take a pig in exchange for a sweater.

If you are studying arithmetic and are asked to add one-half and one-third, the first step in the process is to reduce both fractions to the common denominator, *six*. One-half is changed to three-sixths and one-third to two-sixths. Then adding the numerators of these fractions gives five-sixths. So money acts as a common denominator of value. The price of cloth, quoted by a merchant as 10 cents per yard, gives the measure of value for a yard length. For five yards, then, the cost will be 50 cents. A student wishes to work to pay his room rent. The landlady tells him the room is $4 per week, and he charges $1 per day for the work he is to do. Work and room have been reduced to the common denominator of dollars. It is then possible to tell how many days per week the student must work to pay his room rent for one week.

3. Standard of Deferred Payment. A farmer is in need of money to build a new silo on his farm. The bank where he does business is willing to lend him money enough to build the silo, with the understanding that he will pay the full amount, plus interest, in six months. If there were no such thing as money, the farmer could not determine how much of anything he needed, and the banker would not know what to expect in six months. With a monetary standard the farmer can give the banker a note, expressed in terms of dollars, to run for six months; at the end of that time he can give him back his money, together with the interest due. Such a transaction is one that represents a *deferred payment*. If you buy a book at a bookstore and pay for it at the time of purchase, the transaction is known as an *immediate payment*. If you ask for credit and pay for the book at the end of the month, the transaction is called a *deferred payment*.

Deferred payments are closely related to the value of money. Due to a change in the price level, the value of money at the time of a transaction may be quite different than the value it has six months later when the debt is paid. The value of money when borrowed may be great; that is, its power of exchange for goods may be great at the time of the transaction because the price level is low; but if the price level has risen before the money is paid to the creditor six

months later, the money has a lower purchasing power than it had when borrowed.

4. Method of Saving. Assume a country that has no money. What would its people save? If it were a cold, uncivilized community the inhabitants might save furs. In a more civilized society there might be considerable saving of objects of art, paintings, statuary and pottery. But under most conditions this is undesirable. Most people save today so that they can have something in the future that they can exchange; hence they save in terms of money. In early days, people did not use banks as much as they do today; they protected their savings by hiding them in various places. After the beginning of the depression in 1929, the American people were afraid to deposit hard-earned savings in banks, since so many had failed; they began again to protect their savings by converting them into gold, which they placed in safety deposit boxes or some similar place of safety. But savings are not usually hoarded; wherever possible, they are invested so they may earn some returns for their owners. All Government bonds bought represent a saving on the part of the investors. It would be impossible to carry on business today where savings and loans are made in great numbers if we had no money to represent the amount of these savings. Money, then, is an important device for aiding the processes of exchange. Money acts as a common denominator; not only does it establish a relation of value between two articles, but it also makes the exchange of these articles comparatively easy.

Hiding Savings

KEY POINTS IN UNIT 2

1. Money defined. In a restricted sense, *money* includes only coins, Government currency, and bank notes, which pass freely from hand to hand and are acceptable as a medium of exchange. *Money* includes any commodity which passes from one person to another in making exchanges.

2. There are two distinct kinds of money in circulation in the United States—metallic and paper.

3. *Metallic money* includes: silver dollars and subsidiary coins (also

called *token money*). Since the passing of the Gold Reserve Act in 1934, gold coins have been withdrawn from circulation.

4. *Paper money* includes: bank notes which are in three different forms: Federal reserve notes, Federal reserve bank notes, and national bank notes; *greenbacks*, which are going out of circulation as they are being gradually retired; Treasury notes of 1890, called *Sherman notes*, which are also being retired; and silver certificates. Gold certificates do not circulate at the present time.

5. Fundamental monetary concepts include: a monetary system, coinage, legal tender, bimetallism, Gresham's law, and the value of money.

6. In the United States the dollar was established as the monetary unit of our national currency by the Mint Act of 1792.

7. The value of commodities is measured by a definite unit. Today, the dollar is used as a standard, in terms of which the value of various commodities can be expressed.

8. The *standard money* of a country depends upon the monetary system adopted. Standard money is given value by the metal from which it is made. Gold is a precious metal greatly desired by great numbers of people. When a country adopts a gold standard, gold gives value to the standard money.

9. By a *monetary system* we mean the method adopted by the people of a community or country for the exchange of goods.

10. *Coinage* refers only to metallic money. Government mintage without charge is known as *free coinage;* a charge known as *brassage* is made when the cost of coinage is just covered by the charge; *seigniorage* is a charge in excess of the cost of mintage of money for any individual. This allows a profit for the Government.

11. *Legal tender* is money which must be accepted by a creditor when offered to him by a debtor. In 1933, Congress granted legal-tender power to all coins and currencies of the United States, including Federal reserve notes and national bank notes. The term *lawful money* may be used also when speaking of legal tender as the two terms are interchangeable in meaning.

12. The term *bimetallism* is used when a country has two metals which are coined freely in relation to each other.

13. Gresham's law states that when two metals of unequal value are minted the one with the greatest intrinsic value will be withheld from circulation while the one of less value will be used for paying debts; that is, the "bad money drives out the good."

14. By the *value of money* we mean the quantity of goods money will exchange for at a given price level; that is, the value of any dollar is measured by the amount of goods or services it will exchange for at any time or place. For example, when prices are high the economists say, "money is cheap."

15. The work performed by money makes it possible for an easy exchange of goods that are produced in one section of the country and sold in another section—perhaps miles distant from the production center.

16. Money is also a measure of value of a good or service. The barter method proved unsatisfactory even to the simple life of American Indians, who, before the coming of the white man to this country, resorted to wampum as a medium of exchange.

17. Money has another use as an aid in transactions involving *deferred payments*. A farmer may borrow money from a bank to buy seed for planting his crop, also for producing and harvesting the crop. At the end of the season when the crop is harvested and sold, the farmer pays back to the banker the money he had borrowed, together with interest charged by the banker for use of his money during the time of deferred payment.

18. Many people, especially the more thrifty, save a part of their income if possible, to be used in some future emergency or as a means of support when retiring from active life. This saving is accomplished in terms of money. Certain forms of currency may be kept in some safe place such as a safety box, a service provided by a bank, or savings may be kept in a savings account in a bank providing such service.

Unit 3. Banks and Banking

A. History of the American Banking System:
   1. First Bank of the United States.
   2. Second Bank of the United States.
   3. From the Second United States Bank to the Civil War.
   4. National Banks.
   5. Federal Reserve System.

B. Organization and Functions of Federal Reserve System:
   1. Organization.
   2. Functions.

C. Types of Banks:
   1. Commercial Banks.
   2. Savings Banks.
   3. Investment Banks.

D. Bank Statements.

E. Equation of Exchange.

A. History of the American Banking System. The banking system of the United States was the outgrowth of a definite need. Under the Constitution, Congress is given the power to coin money

and regulate its value. In general principles, banks throughout the world are similar, but each country modifies the system to meet its own needs.

1. First Bank of the United States. The First Bank of the United States was established under a Federal charter in 1791. The main office was in Philadelphia, Pennsylvania, but the bank operated throughout the United States, having eight offices located in the territory that extended from New Orleans, Louisiana, to Boston, Massachusetts. The First Bank of the United States handled commercial affairs of an extremely guarded character and also performed the function of acting as the *fiscal agent* of the Federal Government.

At that time there was little speculation and all banking business was handled with an exceedingly careful policy. By 1800, the expansion of settlement and the utilization of the rich resources of the country began to have a decided reaction on the banks. In order to utilize the country's resources, capital was necessary. The country still had only a limited amount of capital and all of this could be used advantageously in safe commercial undertakings near the seaboard.

With the movement of the population westward, the demand for loans from the banks increased. The difficulties of the eastern conservative banks in meeting these demands likewise increased, and the result was the creating of a greater number of banks farther west. From 1800 to 1811 the number of these banks grew from 28 to 88. In 1836 they had increased to 713. Many of these banks had only small capital, they were poorly managed, and because of their difficulties considerable antagonism developed against the First Bank of the United States and its branches. Since the First Bank of the United States dealt in commercial matters, it was also opposed by many of the commercial banks along the seaboard; and so the First Bank of the United States failed to secure a renewal of its charter in 1811.

2. Second Bank of the United States. In the early part of the nineteenth century many charters had been granted by the states to banks that were weak and incompetent. During the War of 1812 it was found that these banks were unable to act as fiscal agents for the Federal Government and to perform the work that had been done

by the First Bank of the United States up to 1812. These banks could not finance the war. As a result, within four years after the first bank was closed, a Second Bank of the United States was chartered. Its policy was similar to that of the first bank. However, the second bank aroused opposition, partially for the same reasons which had made the First Bank of the United States unpopular, and because certain political factions opposed it. In 1836 the second bank failed to secure the renewal of its charter.

3. From the Second United States Bank to the Civil War. During the period between 1836 and the Civil War, the banking of the country was handled by state and private banks, chartered in the most lenient manner and lacking adequate bank inspection. The banks multiplied in numbers until in 1861 at the opening of the Civil War there were 1,600 in the country. Although there was widespread discontent with the banking situation, neither the Government nor any group of citizens seemed to understand the question adequately or to be able to cope with it. During this entire time, every period of business depression was marked by the failure of a considerable number of banks. The banks issued notes and, because of the great number of different kinds of notes issued, there was much opportunity for counterfeiters to operate and vast numbers of counterfeit notes circulated freely throughout the country. Almost unrestricted granting of charters to banks continued up to the close of this period, in 1863.

4. National Banks. The National Bank Act was passed in 1863. Its requirements were somewhat more stringent than the state laws for incorporating banks, but still were of a general character. There was one point of much importance connected with the National Bank Act. A tax of 10 per cent was laid on bank notes issued by the state and private banks. This greatly decreased the number of different kinds of bank notes circulating, since the tax was so high that state banks could not issue notes. This Act was passed at the time when the country was going through the Civil War and the problem of financing the war was before the Government. It was necessary for the Government to sell its bonds for this purpose. The Act required that each national bank should invest at least one-third of its capital in government bonds.

There is a further point to keep in mind concerning the national bank notes, not only were they uniform, but they were now so adequately backed by Government bonds that the holder of such a note had confidence in it because of the fact that the notes were protected to their full value through the bank's deposit of Government bonds with the Treasury of the United States.

The National Bank Act did not, however, result in any great decrease in bank failures, and the number of bank charters continued to grow until by 1920 there were about 30,000 banks doing business in the United States. It is claimed by the banking authority, Professor O. M. W. Sprague of Harvard University, that between 1836 (when the charter of the Second Bank of the United States expired) and 1914 (when the Federal reserve banks were put in operation) there had been no real advance in banking in the United States. Moreover, during this long period of about eighty years the Federal Government had been forced to operate without any real fiscal agent.

5. Federal Reserve System. The national banking system had some outstanding defects; perhaps the most important of these was the lack of elasticity of the currency. To illustrate, when crops were being planted or harvested in rural districts, it frequently occurred that loans needed by farmers could not be secured from the banks to the extent necessary. This was because the banks were short of funds and there was no method by which they could expand their cash until loans they had previously made became due and were paid. Moreover, when taxes were being paid, there was considerable money withdrawn from the banks for payment to the United States Treasury.

It was for the purpose of remedying this inelasticity of currency that the Federal Reserve System was proposed. The System was put into operation in 1914. It was also hoped, at the time, that the System would assist in at least lessening the severity of depressions, since currency and credit could be regulated somewhat. It was also recognized that it was a step toward regional centralization of the banking organization.

B. Organization and Functions of Federal Reserve System. At the head of the Federal Reserve System (since 1935) is the Board

of Governors, which has seven members appointed by the President and confirmed by the Senate.

1. Organization. In 1914 twelve Federal reserve districts were organized in the United States. In each of these districts is located a Federal reserve bank, and in some districts branch banks of the Federal reserve bank have been organized. Following are the Federal reserve cities, and where branch banks have been organized, this has been indicated.

FEDERAL RESERVE BANKS

Boston, no branches	Chicago, branches
New York, branches	St. Louis, branches
Philadelphia, no branches	Minneapolis, branches
Cleveland, branches	Kansas City, Mo., branches
Richmond, Va., branches	Dallas, branches
Atlanta, branches	San Francisco, branches

The original Act creating the Reserve System required all national banks to become members of the System and permitted other banks to become members if the requirements of a member bank were fully met. The banks that become members must subscribe 6 per cent of their capital and surplus to the stock of the Federal reserve bank of which they are members. Each reserve bank is controlled by a Board of Directors of nine members appointed because of their ability to represent the business interest of the district. The Federal reserve banks are spoken of as *bankers' banks* because they do practically all their business with their member banks, who are their owners and also their customers.

2. Functions. One of the first functions of the Federal reserve bank in connection with its member banks is that of rediscounting. Under the national banking system, before the Federal reserve was created, an individual bank had great difficulty if there was a need for increasing its ready funds. The currency was inelastic; that is, there was no way to expand the bank's funds when such expansion was necessary. Under the new system, a member bank can increase its circulating medium to meet the needs of its community by taking commercial paper out of the bank's resources and presenting this at the reserve bank. If the paper is acceptable and is approved by the Board of Governors, the member bank may receive an amount

equal to the value of the commercial instrument it presents for rediscount, minus a fairly small discount. This is known as *rediscounting*, since the commercial paper has probably been previously discounted when the member bank made a loan to one of its customers. Now the member bank may take the money or it may leave it on deposit to its credit in the reserve bank. This system of rediscounting was the special measure instituted to get rid of the inelasticity of currency that existed under the old national banking system.

A second important function of the Federal reserve banks is to hold the reserves of the member banks. The reserve banks hold deposits for the United States Government, which deposits its funds with them; it also holds certain required reserves for the member banks. The member banks are required to hold 22¾ per cent, 17½ per cent, and 12 per cent to back up their demand deposits, and 5 per cent to back their time deposits. This amount is held for the member banks by the reserve bank of the district.

A third function of the reserve banks in their relation to their member banks is to issue notes. Federal reserve notes are issued by the reserve banks, but they must have, back of the issue, 40 per cent of their value in gold certificates and 60 per cent in well-secured commercial paper. When business is prosperous and many loans are wanted there will be a large amount of Federal reserve notes in circulation, but when a depression is setting in just the opposite will be the case.

Besides being a bankers' bank, the reserve bank has at least two other functions to perform. First, it acts as the fiscal agent for the Federal Government. The Government loans and certificates of indebtedness must be handled. This is done by the Federal banks where the distribution, sale, and redemption of bonds and certificates of indebtedness are handled. These banks also collect bond and certificate payments and retain these funds until called for by the Treasury. The banks attend to coupons due, and to thrift and defense stamps. The reserve banks are also a source from which, in times of depression or defense, the Government may borrow funds when needed.

Finally, as to functions, there are the *open-market operations*. In open-market operations the Federal reserve banks are allowed, by

the Federal Reserve Act creating the System, to buy and sell Government securities, bankers' acceptances and bills of exchange, of the dates of maturity and kinds made eligible by the Act.

Open-market operations are carried on mostly by the New York and Boston banks. The importance of these operations lies for one thing in their effect on the amount of money in circulation. If the Federal reserve banks buy heavily, the amount of money in circulation is increased, since the securities must be paid for with money that is not yet in circulation; when on the other hand the banks sell securities, it means that the amount of money in circulation is decreased.

There is still another effect of the open-market operation. The stock of the Federal reserve banks is owned by the member banks. Dividends should be paid on this stock. If the Federal reserve banks depend only on the rediscounting they do for the member banks, their earnings will be small; but if they buy securities in the open market, these securities are a source of income for them because this has enabled them to put their surplus money to earning.

C. Types of Banks. There are three principal types of banks which may be classified according to the functions they perform. These are commercial banks, savings banks, and investment banks.

1. Commercial Banks. Commercial banks have a great deal to do with *credit*. *Credit* is the relationship that exists between a *debtor* (one who owes) and a *creditor* (one to whom some amount is owed). *Credit*, then, is deferred payment. If a debtor who is able to pay refuses to do so, the law supports the creditor. Credit is ultimately based on concrete wealth. Suppose a man goes to a bank to secure a loan; he proposes to give a mortgage on his farm as the security for his loan. Wealth in the form of his farm is behind this credit. Or assume that a man goes for a loan and gives the bank a *promissory note* signed by himself (a property holder) and another man (also a property holder). There is concrete wealth behind this credit, also. Still another example: you might go into the office of a broker and buy an industrial bond that has been issued by a steel company. Why did the company issue the bond? Money was needed for expanding the plant. The company became a debtor to the extent of

the amount of the bond. You are a creditor of the steel company for you have paid for a bond that will be paid for by the company in perhaps ten years. Behind this bond is wealth in the form of the property of the steel company.

There are several types of credit—*personal credit*, *bank credit*, and *Government credit*—and there are therefore many kinds of credit instruments. Promissory notes have been mentioned; there are also *book credit*, *drafts*, *checks*, *bonds*, *bank notes*, and *acceptances*. All of these are evidences that the relation of debtor and creditor exists.

The two most common forms of personal credit are *book credit* and *promissory notes*. *Book credit* is involved when a customer opens a charge account in a local store and arranges to pay for goods purchased at some specified time. Usually book credits are understood to be payable at the end of each month. A *promissory note* is a promise, drawn up by a borrower, to pay a certain amount to a lender on a given date, probably with a specified amount of interest. Promissory notes are a common use of credit and the transaction is easy to handle. Sometimes the borrower is required by the lender to secure a second person to sign the note with him to increase the security of the lender. Such a note can then be called a *two-name paper*, for if one of the signers fails to meet the obligation the other will have to pay the note.

Bank credit is connected especially with commercial banks. The three most common methods of extending credit are by deposits, notes, and acceptances. Assume that a customer of a bank comes to the bank and secures a loan. He asks that the amount of the loan, minus the discount or interest, be credited to him as a deposit account. The bank does this and it gives the customer the right to draw checks against the bank and thus pay outstanding bills that he may have. The credit of the individual, which could not be circulated widely, has been converted into bank credit through the loan and deposit, and the circulation of the customer's checks on the bank has increased, at least among those with whom he does business. Commercial banks are assumed to use good judgment in deciding to whom they will make loans, in order that the bank may not incur losses; these banks are thus supposed to put the funds of the country to productive uses.

Besides lending its credit by creating deposits as just described, the commercial bank may also issue bank notes which pass freely in the payment of debts. Acceptances have been mentioned; a *banker's acceptance*, known as *acceptance credit*, is a draft drawn on a bank and accepted by it. To illustrate: suppose a bank has a customer who does not want to take out a loan and have a deposit created as previously described. Instead, the customer, in doing business with a third party, makes an arrangement so that the third party can draw drafts on the bank (made payable at some future date) and the bank will accept these drafts. To do this, the bank

Savings Entrusted to a Savings Bank

issues to its customer a *letter of credit* providing that the third party may draw drafts against the bank and that it will accept and pay these drafts when they become due. But the customer must pay the bank the amount of these drafts on or before the date on which they are due.

2. Savings Banks. Another type of bank is the *savings* bank, which lays emphasis on time deposits. By means of these time deposits the bank is able to make long-term loans. Since the banks are responsible to a large number of people who have placed savings in their care, they are required to be especially careful as to their investments. Savings banks are financial institutions that add greatly to the thrift of a country. They assemble funds for the purchase of securities. As a rule the amount of interest paid by savings banks is not large, but the low interest is acceptable to many of the deposi-

tors because of their belief that their money is safe. Many commercial banks also run a savings department.

3. Investment Banks. Investment banks promote investments. To illustrate this: suppose a large business concern wishes a long-term loan. An investment house is asked to secure the loan as an underwriter. The investment house carefully examines into the standing of the business and its probable future. If the loan is approved and the investment house decides to underwrite it, the house will agree to market the bonds, this being the form in which the long-term loan is to be made. The term *underwrite* means that the bank agrees to sell the securities and guarantees to sell them at a certain price and by a certain day. Often an investment bank informs its customers, who are likely to be looking for good investments, that these bonds are coming on the market at a certain time. As a result it may happen that an entire bond issue is sold out at once, enough orders being in the hands of the investment house to absorb all the bonds by the time they are on sale.

D. Bank Statements. A bank is a corporation; as such it is spoken of as a *fictitious person.* The liability side of a bank statement includes items, all of which belong either to the stockholders, the depositors, or the note holders.

Examine briefly the following bank statement:

Assets		*Liabilities*	
Loans and discounts	$160,000	Capital stock	$100,000
Investments, stocks and bonds	191,000	Surplus	50,000
Buildings, real estate	8,000	Undivided profits	45,000
Cash and due from other banks	27,000	Deposits	180,000
Federal reserve stock	9,000	Notes	20,000
Total	$395,000	Total	$395,000

It will be seen at once that the two sides of the statement exactly balance. All that the bank shows on the asset side belongs to the three parties indicated: stockholder, note holder, and depositor.

Analyze the items statement: first, *loans and discounts.* Assume that a business man comes to this bank to secure a discounted loan for $3,000 for 60 days at 6 per cent. He proposes to leave the pro-

ceeds in the bank as a deposit. He will not receive credit for $3,000, but for $2,970, since $30 will be held by the bank to pay the discount or interest. *Discount* is the amount the bank charges for the use of its credit; in other words it is interest. What changes would this transaction make in the bank statement if the customer should decide he wants $1,000 in cash and will leave the remaining $1,970 on deposit?

Let us follow the plan of putting the plus sign in front of any item in the bank statement that is increased through this transaction and the minus sign before any item that is decreased. Then we will add each side algebraically and both sides should be the same.

Note changes made by the foregoing transaction:

Assets		*Liabilities*	
Loans and discounts	+$3,000	Undivided profits	+$ 30
Cash	− 1,000	Deposits	+ 1,970
	+$2,000		+$2,000

If these changes were applied to the proper items in the complete foregoing statement, the statement would show an increase of $2,000 on each side. Every transaction must balance. The earnings of the bank go into undivided profits.

Since a bank is in business to make money, it endeavors to keep as much as possible of its money working to earn interest. Therefore, the bank will make such investments as it will consider safe and profitable. The purchase of stocks and bonds will come under the head of *investments*. Its item *cash and due from other banks*, if this is a bank of the 12 per cent class, must be at least 12 per cent of the deposits, in this case $21,600.

Assuming that the bank under discussion is a member of the Federal Reserve System, it must hold Federal reserve stock in the reserve bank of its district equal to 6 per cent of the sum of its capital stock plus its surplus, in this case $9,000. On the liabilities side, *capital stock* is the amount paid in by the stockholders when the bank was incorporated. In order to increase a bank's strength, a surplus is frequently established at the time the bank is organized. This comes out of the money paid in by the stockholders and may from time to time be increased by money voted into it, by the board

of stockholders, from the undivided profits. Therefore the first three items, *capital stock*, *profits*, and *undivided surplus* are all the property of stockholders. The *deposit* item belongs to the various customers of the bank who have deposits in the bank, and the *notes* are owed to whomsoever has a circulating note in his possession. A bank's statement is changed by every transaction, but discussion of those problems belongs to a more advanced treatment of banking.

E. Equation of Exchange. *The quantity theory of money* once advocated by economists can be stated thus: a change in the quantity of money is accompanied by a change in the price level in the same direction and a change in the value of money in the opposite direction. That would mean that if the quantity of money in a country doubled, the price level would double and the buying power of money would be cut one-half. There might be some truth in this if no other change occurred except that in the quantity of money. But it has been found that a number of other factors may change at the same time, such as the turnover of money and the number of transactions. These too have an effect on the price level.

Over a period of years, Irving Fisher, professor of political economy at Yale University, accumulated the facts concerning the changes in quantity of money, prices, and transactions. Finally, he formulated an equation and then continued to study the facts. When he found exceptions he recorded them. As additional data are collected, other modifications may be necessary. Stated in its complete form as presented by Professor Irving Fisher, the *Equation of Exchange* is:

$$MV+M'V'=PT$$

Each of the letters in the equation, when taken separately, has a definite meaning.

M = all the money in circulation at a given time; that figure can be obtained from the United States Treasury Department.

V = the number of times a dollar is turned over or is spent in a given time, for example, one year. If a dollar bill is used to pay for a package of envelopes, that is one turnover for that dollar. Every time the dollar is used, the transaction is counted as one turnover.

M' = the amount on deposit in banks against which checks can be drawn; it does not, therefore, include savings accounts.

V' = the number of times these deposits are turned over through the use of checks.

P = price level.

T = the total number of transactions that take place, again within a given period, for example, one year. That is, T represents the total number of bushels of corn, barrels of potatoes, yards of cloth, pairs of shoes, and so on, including all the commodities exchanged.

MV is called *the money side of the equation;* PT, the right-hand side, is called *the goods side of the equation.* If, then, the money side

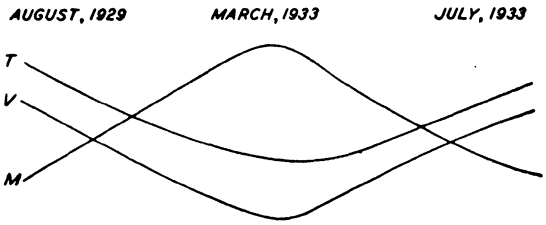


Fig. 21. Movements of Magnitude Counteracting Each Other

MV is \$4,000,000, the goods side, or PT (the amount of goods times the money for which it is exchanged) must also be equal to \$4,000,000.

Three rules may be stated which show how changes are reflected in the Equation of Exchange. Putting them in compact form, they are as follows:

Rule 1. *All other factors remaining the same,* a change in M is accompanied by a change in P in the same direction and usually in M' in the same direction.

Rule 2. A change in V, *all other factors remaining the same,* is accompanied by a change in P in the same direction and no other change.

Rule 3. A change in T is accompanied by a change in P in the opposite direction if V and M do not change.

To illustrate these rules, take the simple form:

$$MV = PT$$
$$(2M)V = (2P)\ T, \text{ rule one}$$
$$M(2V) = (2P)\ T, \text{ rule two}$$

Allowing two magnitudes to change at the same time,

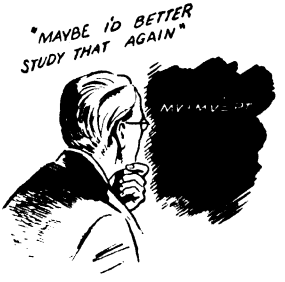
$$(2M)\ \frac{V}{2} = PT$$

Here, doubling M counteracts cutting V in half, and P remains unchanged.

$$MV = \frac{P}{2}\ (2T), \text{ rule three}$$

Since a change in transactions has no effect on M or V, the effect is taken out on the price level, or P.

We are interested especially in the effect which any of these magnitudes has on price level, P, and it is clear that if two of them or all of them changed at the same time this might have complicated effects on P. Such a situation developed during the last depression. Through open-market operations, M was increased between August 1929 and March 1933. This should have increased prices but it did not. T was decreased; this also should have increased prices but it did not. Gold and gold certificates were being hoarded and this decreased V to such an extent that it counteracted M and T and prices went down. An unscaled diagram, Fig. 21, shows this situation roughly.



This discussion of the Equation of Exchange, though brief, shows that it is an excellent example of the way in which the *inductive* and *deductive* methods can be used in economics. This is one way in which knowledge can be acquired.

KEY POINTS IN UNIT 3

1. One of the first problems which had to be solved by the founders of our nation was that of establishing a banking system. Like other economic institutions the banking system of the United States developed in

accordance with a definite need for some uniform method of handling the expanding financial affairs of the country.

2. The Constitution gives Congress power to coin money and regulate its value.

3. The First Bank of the United States was chartered by Congress in 1791, for a period of twenty years. Increasing demands for capital to finance new settlements and utilize the country's resources overtaxed the banking facilities of the nation. Because of the inability of the first bank to meet these new demands satisfactorily, it became unpopular and consequently failed to secure a renewal of its charter, which expired in 1811.

4. The War of 1812 created additional difficulties for the new country and in 1816 Congress chartered the Second Bank of the United States for a period of twenty years. Since the charter expired in 1836 and was not renewed, the country's banking business was carried on by the states from 1836 to 1863. During this time the banks were charged with many evils, and the existing banking institutions proved inadequate for financing the Civil War.

5. To meet the urgent war needs of the country, Congress established the National Banking System in 1863. This system, also, contained many defects which became more and more evident with the passing of years, and in 1913 the Federal Reserve System, which still prevails, was established.

6. The purpose of the Federal Reserve System was to correct the evils of the National Banking System and to stabilize and improve it. Another aim of this system was to supply a more elastic currency and to provide for an effective distribution and regulation of reserve funds held in reserve in the various banks of the country. The Federal Reserve System includes all the National banks of the country as well as the state banks wishing to join and which can meet the requirements of the system.

7. Under the Federal Reserve System, the country is divided into twelve Federal Reserve Districts, with one Federal reserve bank in each district. In some districts there are several branches; for example, the Federal Reserve Bank of New York has twenty-five branches. The Federal Reserve System is supervised and controlled by a Board of Governors with offices in Washington, D.C. The board consists of seven members appointed by the President.

8. The Federal reserve banks have several functions: (1) rediscounting, the special measure instituted to make currency more elastic. In order to provide funds to meet an urgent need, commercial paper held by a member bank may be presented to a Federal reserve bank for rediscounting to provide the needed funds to meet an emergency; (2) to hold reserves of member banks, also to hold deposits of the United States Government, which deposits funds in these banks; (3) to issue Federal reserve notes. These notes must be backed by 40 per cent in gold.

9. In 1933, Congress passed the Emergency Banking Act, which granted power of legal tender to all currencies of the United States.

10. The following year (1934) the Gold Reserve Act was passed. This provided for a gold bullion standard for the United States. Gold coins and gold certificates were then withdrawn from circulation, gold passing only between the United States Treasury and the Federal reserve banks.

11. In June of the same year (1934) the Silver Purchase Act was passed. This provided for the purchase of silver until the proportion of gold and silver in our monetary stock should be 25 per cent silver and 75 per cent gold.

12. In 1933, the Federal Deposit Insurance Corporation was created to provide security for deposits in member banks. In 1935, this type of insurance was made permanent and deposits up to the amount of $5,000 are insured.

13. Banks may be classified according to the functions they perform: (1) commercial banks handle credits, especially short-term loans to business men; (2) savings banks handle long-term investments with personal savings of small amounts and tend to encourage thrift; (3) investment banks deal entirely in securities and selling of stocks and bonds.

14. Since a bank is a corporation, one of its important duties is the preparation of statements which must be presented to the stockholders at regular intervals of time. These statements are published in the local papers and are important because they reveal the financial condition of the banks. The statement must show the assets and liabilities of the bank at the time the statement is made.

15. The *quantity theory* may be stated as follows: a change in the quantity of money is accompanied by a change in the price level in the same direction with a change of value of money in the opposite direction.

16. The equation of exchange has been reduced to an algebraic formula by Irving Fisher, authority in political economy: $MV+M'V'=PT$.

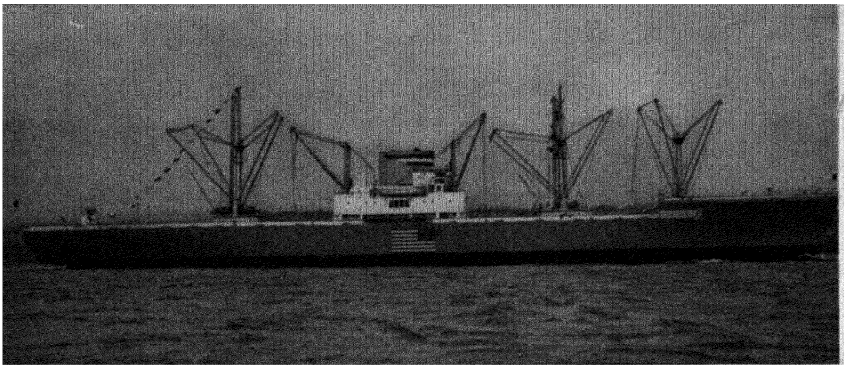
Unit 4. Foreign Trade

A. How International Settlements Can Be Made.
B. The Rate of Exchange.
C. Invisible Items of Trade.
D. Absolute and Comparative Advantages.
E. The Tariff:
   1. Early Attitude toward Tariff.
   2. Arguments for the Tariff.
   3. Home-Industry Argument.
   4. Foreign-Trade Policies.
   5. Tariff for Revenue.
   6. Reciprocal Tariff Act of 1934.
F. Conclusion of Exchange.

A. How International Settlements Can Be Made. In practically every country, a considerable amount of attention is given to the exchange of commodities and services that have to do with foreign countries. In almost every country in the world there is a demand for some goods that cannot be made at home and, therefore, must be procured from other countries; then there are still other countries seeking to buy goods produced by our country and offering a good market for our products, sometimes at a better price than can be secured at home.

How such an exchange may be made, and one of the ways in which it can be settled, are illustrated here, step by step. Fig. 22 will help to make this clear.

Assume you are a New York exporter A and you are selling $10,000 worth of cotton to a London importer B. He is a man with whom you have done business for many years, you know him well and he asks you for 60 days credit which you grant. You put the cotton on ship board for transport to England. When the cotton is placed on the ship the steamship company gives you a bill of lading, which is in fact a *receipt.* A *bill of lading* is a receipt given by a transport company to a shipper saying that a certain amount of goods has been turned over to the company for transport to a certain party. It does not differ in character from a receipt you would ob-



The Robin Locksley, a Modern Ocean-Going Freighter Built Shortly Before World Wa

tain from the Railway Express Company for a package to be delivered to Mr. X in Omaha, Nebraska.

While you have told Mr. B in London that he need not pay for 60 days, it is assumed that you would like your money immediately. Fortunately, there is a way you can get it on the same day you put the cotton on the steamship. You are a customer of bank C and well

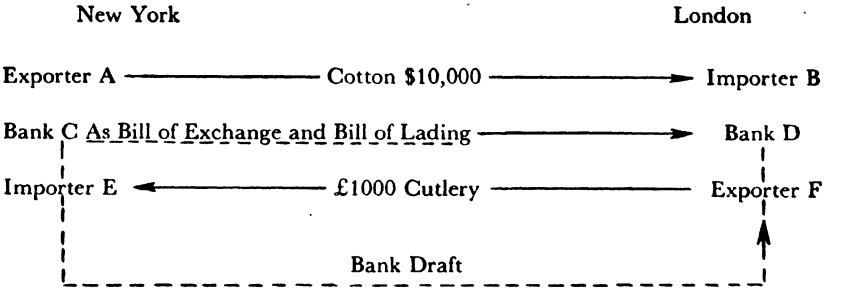


Fig. 22. Foreign Trade Transaction

known there. With your bill of lading you can go to the bank and draw up a bill of exchange, see Fig. 23A. In a simplified form a bill of exchange reads as follows:

A bill of exchange must not be confused with a bill of lading. A *bill of exchange* is an order drawn by an exporter on an importer, ordering the importer to pay the amount of the bill, usually to a bank or the order of a bank, on the date indicated.

You, as exporter A, ask bank C to discount the bill of exchange which you have drawn up on importer B and pay you the proceeds.

You will receive payment for your cotton, the $10,000, less the discount for the 60 days that the bank will have to wait until importer B pays his bill.

Bank C will have in its possession the bill of exchange you draw up and probably your bill of lading. These it can put immediately into the mail and send to bank D in London, called its *correspondent bank*, because it is the bank with which bank C deals in London.

When the bill of exchange and bill of lading arrive at bank D in London, importer B can be asked to go to the bank at once. When he arrives and is shown the bill of exchange drawn on him by exporter A, he will be asked to accept it. After reading it carefully, if

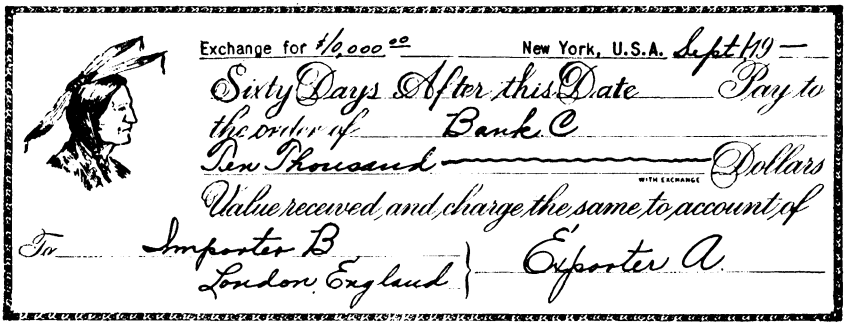


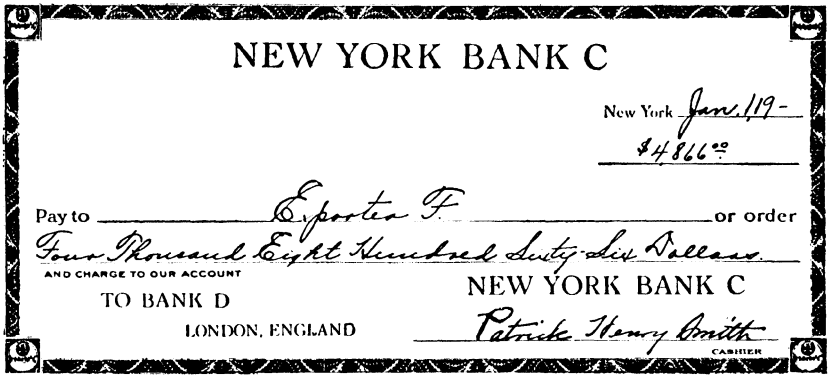
Fig. 23A. Simplified Bill of Exchange

he finds it is correct he will write the word "Accepted" across the front and sign the name of his firm. This bill of exchange, through this process, becomes one form of an acceptance. Bank D now turns over to importer B the bill of lading. On presenting this to the transport company, B can get his cotton. On the day B signs the bill of exchange and thereby makes it an acceptance, the books of the London bank (D) show that this bank credits the account of the New York bank with the amount of the bill.

When the end of the 60 days of credit for B comes, he goes to the London bank and pays the full $10,000. The bank in London must receive the full amount, for it has waited 60 days before getting the money. The New York bank received a credit of $10,000 when the bill of exchange was accepted. It is the exporter A who received $10,000 minus the discount for 60 days.

You may wonder how sending goods abroad will affect us. This is one of the outstanding problems in our economic life and should be far better understood than it has been heretofore. If we export commodities it builds up or increases our credit abroad. By increasing credit in this manner, we increase our right to secure either money, goods, or services from the country to which we have shipped goods, in repayment for our exports to them.

Let us consider a case in which the importer E is in New York and the exporter F is in London. See Fig. 22. F sends cutlery valued at 1,000 pounds to E. In this case the payment is to be made as soon as the goods are received. It may be done as follows: Importer E,


NEW YORK BANK C

New York Jan. 19-

$4866.00

Pay to Exporter F or order

Four Thousand Eight Hundred Sixty-Six Dollars.

AND CHARGE TO OUR ACCOUNT

TO BANK D

LONDON, ENGLAND

NEW YORK BANK C

Patrick Henry Smith

CASHIER

Fig. 23B. Bank Draft

who is a customer of bank C, goes to the bank where he has a checking account. He hands the bank a check for $4,866. (We are assuming that the value of an English pound is $4.866 in American dollars.) He asks the bank to give him a draft drawn on London and payable to exporter F; this is worded about as shown in Fig. 23B.

A *bank draft* is an order drawn by one bank on another bank ordering the second bank to pay the amount of the draft to a third party. In this case the draft is drawn by bank C in New York on bank D in London ordering that bank to pay the amount of the draft to exporter F in London. The draft is given by the New York bank to importer E who places it in the mail addressed to exporter F in London. On receipt of the draft, F presents it at the London bank and receives his pay for his cutlery.

The cases cited are only two of many methods for settling an international transaction, one in which a time element is involved and one where payment is to be made immediately. When we import goods, the result to our credit abroad is exactly the opposite to that which results when we export. When we send a bank draft drawn on London abroad, that means that the credit this country had in the London bank, bank D, is reduced by the amount of the draft. In other words, the importing of goods by citizens of the United States gives the country, from which we import, the right to expect goods, money, or services in return. It decreases our credit abroad.

B. The Rate of Exchange. Since the various countries with which we deal have different currencies than ours (our unit being the *dollar*, the English the *pound*, the French the *franc* and the German the *mark*) it means that when a bill has to be paid there must be some way to compare the value of the two monetary units. Since we have been using England in our illustration, let us proceed with that. England is off the gold standard and we are on what may be called a *gold-bullion standard*, so in our illustration let us use the value of the dollar and the pound as they were when both countries were on the gold standard. Then, one English pound equaled $4.866 in gold of the same degree of fineness. Exchange values may be found by examining the financial page of a newspaper.

When both countries were on a gold standard and an English pound exchanged for just $4.866 it was said the pound and dollar *exchanged at par*, for they exchanged in exactly the ratio of gold in one pound to gold in $4.866. Money then is exchanging at par when the standard unit of money in one country exchanges for the standard unit of another country according to the gold in each. But money does not always exchange at par, and changes in the rate of exchange may be brought about by imports and exports. Turn again to the diagram, Fig. 22, then refer to Fig. 24A. If we had only this situation to deal with, there would be a demand in London to buy foreign exchange in order to pay this debt. The debtor in London must pay his bill due in New York. That means he must buy foreign exchange in London in terms of American dollars and pay for it in terms of English pounds. By buying foreign exchange

we mean the buying of any instrument such as a draft or a bill of exchange used to pay a debt in a foreign country. If there is a demand in London to buy dollars to pay a bill in New York the value of an American dollar, in terms of English pounds, will rise. If there is an increase in the demand for shoes the price of shoes will rise. The same happens to dollars because of the increase in demand for them to be used in paying debts. If the relative value of one pound and a dollar should change so that one pound equaled $4.84, then only 484 pennies would be required to buy a pound, whereas it formerly required 486 pennies when the pound and dollar were at par. This means that the value of the dollar is higher and the rate of exchange is in our favor. Therefore, exportation of goods from this

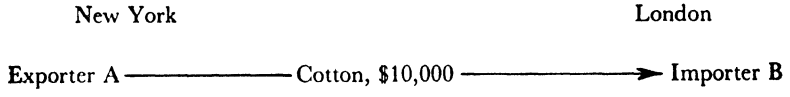


Fig. 24A. Effect of Commodity Export on Rate of Exchange

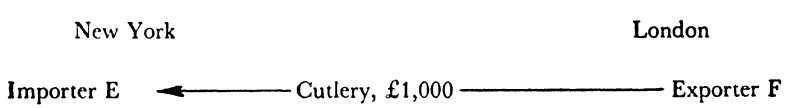


Fig. 24B. Effect of Commodity Import on Rate of Exchange

country means that American credit is built up, the value of our money is increased, and the rate of exchange is in our favor.

When we have bought goods from abroad, see Fig. 24B, if we send a draft to pay for them, it means that our credit there is decreased. Foreign exchange in terms of English pounds is then wanted in New York and must be paid for in American dollars. That means an increase in the demand for pounds, which will raise the value of the pound, and we may find that one pound now equals $4.88 or a pound costs more in American dollars than it did before. If we import, then, it decreases our credit abroad, lowers the value of our money in relation to the money of the country we trade with, and turns the balance of trade against us.

C. Invisible Items of Trade. In addition to actual commodities, or what are known as the *visible items of trade*, there are many so-called *invisible items* that must be considered here.

These invisible items may be in the form of services. For example, an American purchases a steamship ticket on a British liner and the steamship transports the person to England. That is a service performed by a British company for an American citizen. It would mean that, to settle this transaction, American money would have to move toward England in exactly the same way in which it would move if we imported goods. A service performed for us by another country is the same as an item of import for us, for it would call for money to move toward the foreign country.

Now suppose the American traveler carries $3,000 worth of travelers' checks. These might be banker's checks drawn on some London bank requesting the London bank to pay this amount to the American traveler. It is at once evident that this decreases the credit we have in the London bank and that the results are exactly the same as though we had imported goods from England.

Still another example: a young English immigrant in New York wishes to send money to his mother in London. He goes to an American bank and buys from the bank a draft on a London bank. This draft directs the London bank to pay the amount of the draft to the mother. Again this decreases American credit in the London bank and the results are the same as though we had imported goods. This, like the two examples that preceded it, are invisible items of import for the United States.

Another problem: an American goes to a bank in New York and asks the bank to buy a $1,000 bond on the London and Midland Railway. The bank replies that it will have the bond ready to deliver in about three weeks. The New York bank may cable to the bank with which it does business in London and ask them to send the bond and charge it to the New York bank's account. This is done and the bond arrives in New York and is paid for by the customer who ordered it. He may pay the New York bank with a check or with cash. Meanwhile the London bank has deducted $1,000 from the credits that the New York bank had with them, and this transaction, from the point of view of international trade, has been an invisible import.

An English insurance company writes an insurance policy for an American woman to cover the loss of her fur coat. The woman pays

the price of the policy. A service has been performed by an English company for an American and appears in the international balance of trade as an item of import for us.

During World War I the United States did not possess a sufficient number of ships to transport its own soldiers to France. They were carried in English ships. This Government paid for that service. Again, this represented an invisible item of import for us, invisible, as already explained, because it is not a material concrete commodity like cotton or cutlery, but a service. Performed by Americans for the English, any one of these invisible items of import would become an item of export for us. For example, if we carried English passengers on American boats, or English tourists came to this country and brought drafts drawn on American banks, spending money that they secured in this way for board, rooms, and travel in America, these would then constitute invisible items of export for us.

D. Absolute and Comparative Advantages. Two terms used extensively in connection with foreign trade are *absolute advantage* and *comparative advantage*. Let us consider two countries, Brazil and the United States. Brazil grows coffee, we do not. We make excellent steam engines. We may say that Brazil has an *absolute advantage* in the production of coffee and that since we do not grow coffee at all we must buy from Brazil; even if Brazil could make a few steam engines we have so great an advantage in producing them we may say we have an absolute advantage in producing steam engines and Brazil would be wise if she bought them of us. This illustrates the principle of absolute advantage in foreign trade.

As an example of comparative advantage: suppose that England can produce both printed cottons and woolen broadcloth, assume that the United States can also produce both of these articles. But the United States has an advantage over England in the production of printed cottons and England has the advantage over the United States in the production of woolen broadcloth. Then it would be best for England to buy printed cottons from the United States and the United States to buy broadcloth from England. In other words, each country should specialize in the goods which it can produce at the lowest comparative cost.

E. The Tariff. Tariff is a tax imposed by a government on imported goods. When Adam Smith wrote his *Wealth of Nations*, in 1776, the trading world was just passing out of the stage known as *mercantilism*, a system in which all trade was strictly regulated by the government and by the guilds. Every effort was made to sell as much as possible and to buy as little as possible and to secure the difference in money. Of course, it is evident that such a system could not work out with every nation, for someone had to buy if anyone sold. With the coming of the *Industrial Revolution*, at the beginning of which Smith wrote, there developed an entirely different attitude in relation to industry. Large factories were built and gradually duties on the importing and exporting of goods began to disappear. The *laissez-faire* attitude, or let-alone policy, developed. Enterprise was free from any regulation. The government was to keep hands off.

1. Early Attitude toward Tariff. The laissez-faire point of view prevailed in England, but in the United States a different attitude developed. America was starting her *infant industries*, especially steel and textiles. England had a considerable start in these fields and could produce goods cheaper and thus undersell the industries in the new country. As a result, there began a strong demand on the part of the manufacturers in the United States that everything should be laissez faire except foreign trade, but that there should be a tariff to stop competition from foreign goods. So in 1816 a protective-tariff law for the protection of iron and steel was passed, and since then America has maintained a tariff, sometimes low, but usually comparatively high.

2. Arguments for the Tariff. Among the arguments that have been used in favor of protective tariff, is the *infant-industry* argument. That is, if a country is beginning an industry it may meet many difficulties at the start, difficulties in getting trained workmen, in securing capital to equip plants in the best manner possible, difficulties in getting goods on the markets that may already be well supplied with goods from other countries. Hence, in order to give the new industry a start, it is necessary to stop the sale of foreign competitive goods in the home market. It is recognized that this will probably mean that domestic consumers may have to pay higher

prices than if foreign goods, produced more cheaply, came in to compete with the home product.

This position is based on the argument that the standard of living in the competing countries is lower than in the United States and that bringing in goods produced with low labor costs to compete with goods produced in the United States will result in a lowering of the wage scale in America; hence, it is claimed that the wages of the workmen in tariff-protected countries will be higher. However, wages in protected industries are not higher than wages in unprotected industries.

3. Home-Industry Argument. It has been argued in favor of the tariff that it helps to build up home industries and makes a nation self-sufficient. It is claimed that only a small part of what we produce goes into foreign trade and that our markets are able to take all we produce. First, recall the discussion of comparative and absolute advantages between two countries. There are certain products we cannot or do not raise, certain other products that we cannot produce except at a high comparative cost. However, statistics show that in normal times about 6,000,000 people would be jobless if the foreign markets that take our goods were cut off. In 1939 we shipped abroad about 50 per cent of all the cotton we grew, 20 per cent of the agricultural machinery, 40 per cent of tobacco, 30 per cent of lard, and 35 per cent of copper. To be sure, the *home-industry* argument is merely another angle of the *diversified-industry* argument which holds that by means of the tariff we can build up a large variety of industries and become nearly self-sufficient. This is also closely associated with the *infant-industry* argument.

4. Foreign-Trade Policies. It is necessary to distinguish between the various outstanding policies that may be adopted toward foreign trade.

Four of these policies are: so-called *free trade*, *protective tariff*, *tariff for revenue only*, and *reciprocal trade agreements*. England was formerly what is known as a *free-trade country*. After the repeal of the corn laws in 1846, England more or less consistently admitted goods with little or no tariff. It should be remembered that *corn* in England usually refers to wheat and an import duty had for sometime existed on this important foodstuff. It had been put on wheat

in order to protect the English farmer and enable him to get a fairly high price for his grain. The repeal of the corn laws resulted in cheaper bread for the working people of England. Between 1846 and 1849 England removed the duties on about 200 articles and thus gave up the old policy of trade restriction of which the *Navigation Acts*, known to every well-informed American, were a part. They were abolished in 1849. England only modified her free-trade position after World War I.

The arguments for free trade have been largely those centering around territorial division of labor. If goods can be secured from one world area at less cost than from the home area, it is better to take advantage of the comparatively lower foreign cost and buy abroad. This leaves the home country free to produce and export more of those goods in which it possesses either a comparative or absolute advantage. *Free trade* may then be defined as unrestricted trade; goods go into and leave a country without any control being exercised.

Protective tariff has as its purpose the protection of the industries of the country from competition of foreign-produced goods of the same type. For example, assume that American producers of broadcloth for men's dinner suits can produce the cloth that can be sold at $3 per yard, but English broadcloth of equal quality can be sold in this country for $2.75. This would mean that the American manufacturer would attempt to secure a tariff that would amount to at least 25 cents on each yard of incoming British broadcloth. A United States Tariff Commission in Washington is engaged in making studies of the cost in the foreign countries of the articles we import. It is thought that such a study may result in establishing fair tariffs. An industry protected by a protective tariff finds itself in a more favorable position than that enjoyed by industries having no protection whatever. After over a hundred years of protection, the so-called *infant-industry* argument is still repeated although some of the industries first protected in the early nineteenth century have now become the largest of their kind in the world.

Some criticisms of the protective tariff have already been named. There have been statements to the effect that the tariff is the mother of monopoly. Some critics claim it enables industries to charge the

consumer high prices and as a result builds up large surpluses, since it cuts out all foreign competition. Those who consider the large-scale industry, the trust, or the monopoly, a desirable thing would consider the tariff also as desirable. One's opinion on the tariff will be determined largely by the attitude taken on some other problems in economics. Some industries might be ruined if the tariff were abolished immediately; others have grown to such proportions that they no longer need the protection of a tariff.

5. Tariff for Revenue. Tariff for revenue only might be laid, in our case, on articles that are not grown in the country, such as tea or coffee. It should also be an article widely used so that the demand for it is inelastic as in the case of tea and coffee. A country operating under free trade would permit these articles to enter without a tax of course; but if a country thought to add to its revenue for government expenses, it might impose a small tax on an article used by the majority of its population. Inelasticity of demand is important, as this means that a small increase in the price caused by the addition of the tariff will make practically no decrease in the demand.

There are two kinds of tariff taxes, one called *specific* and one *ad valorum.* The first is a tax on measurement, bales of cotton, yards of cloth, or square feet of lumber. The second is a tax on the value of certain articles such as French perfumes, jeweled cuff links, and oriental rugs.

Protective tariff and revenue tariff have been the dominant forms in the United States. The highest protective tariff was passed in 1930 and is known as the *Smoot-Hawley Act.* Before this the highest tariffs had been provided by the passing of the *Fordney-McCumber Act* in 1922.

6. Reciprocal Tariff Act of 1934. A modification of our tariff policy was introduced in 1934 when the *Reciprocal Tariff Act* was passed. This policy is one based on the principle that a country cannot long sell to other countries unless it buys from them. It provides that the Executive branch of the Government can make reciprocal-trade agreements with other countries. The nation making the agreement is to admit certain products from the other nation, either duty free or at a lower rate. Tariffs set by the Smoot-Hawley Act may be

lowered by as much as 50 per cent providing the country with which we are making the treaty will take our products under favorable terms. Before World War II, Cuba, Belgium, Brazil, Canada, Switzerland, Sweden, Colombia, the Netherlands, Honduras, and Haiti had signed up such treaties with us.

It has been generally agreed that the tariff of 1930 was perhaps one of the most disastrous events that has ever happened in the economic world. Trade between this country and other countries was pretty effectually blocked, and other countries also set up tariff barriers that added still more to the world dilemma. The Reciprocal Trade Act met with much opposition when brought up for passage and in the early period after it went into action, but as time passed and no disasters seemed to befall any of our industries, and instead, a steady volume of trade began to flow between ourselves and the countries with whom we had made these treaties, the Act was looked on more favorably. The lumber and cattle men were among those who made protests at first, but later saw that in the long run this opening of some of our markets benefited not only the country but themselves as well.

We have for sometime recognized that there are certain substances and commodities that cannot be found in all parts of the world, but that with our intricate complex industrial organization, now world-wide in extent, all countries need access to most of these substances. So the possibility of trading freely with each other is essential to an economically organized world community.

F. Conclusion of Exchange. In discussing the exchange of commodities and services we have traced the development of the market from an exchange between two frontiersmen, through the increasing of population towns, to exchanges between countries, and finally to the world market. We have indicated the various influences that have prevailed and still prevail in the markets, from competition to monopoly and monopolistic competition.

The early markets could depend on barter for exchanges, a process requiring that two persons, each of whom possessed something the other wanted, should come together. But this was always a difficult matter and even the American Indian, with his wampum, had worked out a method of exchange approaching the use of

money. Finally, when money as a means of exchange was adopted, great possibilities for trade opened up.

Associated with the bank as an economic institution is the subject of credit. Today widespread exchanges extend all over the world and personal credit, in the form of promissory notes or book credit, plays only a limited part. The largest element in credit is bank credit, either in the form of notes or *created deposits.* A *created deposit* is made by the customer when he goes to the bank and secures a discounted l· .ı which he leaves in the bank in the form of a deposit. This enables the customer to use the bank's credit since he can draw checks on the deposit, which when endorsed can pass to a limited extent among people who are well acquainted with each other. A further discussion in connection with banks concerned the different types—saving, commercial, and investment banks—and the different functions each type performs. The type of work that each bank assumes is the result of a long period of development.

Finally, it was shown that banks as institutions are important in handling credit and other matters relating to exchanges, together with foreign trade. However, just as desires are the basis of production, in the same way desires are also the foundation of exchange. Not only must there be a desire for the goods, but the person desiring goods must possess some article that can be exchanged for the goods whether it is money that can pass freely from hand to hand or another commodity that can be bartered. We must remember that it is in the process of exchange in the markets that value is determined and prices are set.

KEY POINTS IN UNIT 4

1. Settlement for exchange of commodities between people of different countries can be made without much trouble, by the use of bills of lading, bills of exchange, and bank drafts.

2. A *bill of lading* is a receipt given by a transport company to a shipper, stating that a certain amount of goods has been accepted for transportation to some point named in the bill.

3. A *bill of exchange* is an order drawn by an exporter to pay the amount of the bill.

4. A *bank draft* is an order drawn by one bank on another bank ordering the second bank to pay the amount of the draft to a certain party.

5. Different countries dealing in international trade have different kinds of currencies and monetary units different from our dollar. Mexico has the *peso*, England the *pound*, Germany the *mark*, and other countries have still other types of monetary units.

6. Because of the difference in monetary units of the countries involved in international trade, some method had to be devised to compare the two monetary units of the countries concerned in a transaction. This method of comparison of monetary units is known as a *rate of exchange.*

7. Up to this point in our discussion of foreign trade we have considered only visible commodities, such as wheat, radios, and other similar objects. There is also an exchange of so-called *invisible items* of foreign trade; these include services, or such items as traveler's checks, or any other item of exchange which does not have to do with purely visible items.

8. The principles of foreign trade involve two terms—*absolute advantage* and *comparative advantage.*

9. When one country buys goods from another country, if the commodity is not produced in the country buying, the country which sells is said to have an *absolute advantage* over the buyer. If the commodity is produced by both countries but because of particular advantages of production in one country it produces a better item or a cheaper item, the country is said to have a *comparative advantage.*

10. *Tariff* is a tax or duty paid on imported goods.

11. In the early days of our country, tariff was placed on imported goods in order to protect the new or "infant" industries of our country. The older countries had well-developed industries with which the new industries of our country could not compete advantageously.

12. In some cases tariffs are placed on imported goods for revenue as well as for protection of industry.

13. The Reciprocal Tariff Act in 1934 was a modification of our previous tariff policy.

14. In any transaction between our country and other countries the services furnished by our banks is highly important.

QUIZ QUESTIONS ON CHAPTER V

1. Name three factors involved in the economic process of exchange of commodities or services.

2. Give one fundamental difference between the markets of pioneer days in America and the present-day markets of our country.

3. What is a competitive market? Give an example.

4. Are there any purely monopolistic markets in America?

5. Is a market always local in character? Give an example to prove either that it is, or is not.

6. Before money came into use as a medium of exchange, what method was commonly used when exchange of commodities was made?

7. *What is the meaning of* wampum? *In what country was it used?*

8. *How many kinds of money do we have in the United States? Give an example of each kind.*

9. *What are the* subsidiary coins?

10. *Define each of the following terms:* free coinage, brassage, *and* seigniorage.

11. *What is the meaning of* legal tender? *Is all currency of the United States legal tender?*

12. *Explain the meaning of a* money standard *and* monetary unit.

13. *When was the Gold Reserve Act passed? What change did this law make in our money standard?*

14. *What is Gresham's law? Give an example of the operation of Gresham's law in recent years.*

15. *What is meant by the* value of money? *What gives value to money?*

16. *What is the monetary unit of the United States? Of Mexico?*

17. *Show how the value of money is important in transactions of deferred payment.*

18. *When was the first bank established in the United States?*

19. *When was the Federal Reserve System adopted? What are the chief functions of the Federal Reserve System?*

20. *Name three different types of banks now in operation in the United States. Give one function of each type.*

21. *Define each of the following:* bill of lading, bill of exchange, bank draft, rate of exchange, *and* invisible items of trade.

22. *What is meant by* tariff for revenue only? *Why did the pioneer settlers of America believe we should have a tariff on imported goods?*

23. *When was the Reciprocal Tariff Act passed? State main features of the Act.*

24. *What is the meaning of* absolute advantage *in foreign trade?*

25. *Give an example of a* comparative advantage *in foreign trade.*

Chapter VI

PRICE DETERMINATION

OBJECTIVE: The place of demand and supply in the determination of prices in markets that are competitive, monopolistic, or monopolistic-competitive.

PREVIEW: *In the first five chapters of this text the discussions deal with the historical background of our economic system and the fundamental concepts of economics, including: economic goods, wealth, utility, property, value, and price. Human desires are stressed as the basis of all consumption. The factors of production—land, labor, capital, and enterpriser—are discussed, and it is shown that human desires are also the basis of production. In this chapter which deals with price determination, again the importance of the part played by human desires is seen in the forces controlling supply and demand in markets where economic goods are exchanged.*

In all economic transactions, supply and demand are two important factors always present. In a competitive market only the most efficient producers can survive in a time of depression or over a long period of time. In a monopolistic market the administrative body of a corporation can set its own price on its products, and the buyers will be compelled to pay that price, do without the goods, or take a substitute. In a purely monopolistic market the commodity sold may be of an inferior quality since the producers have no competitors. The law of supply and demand does not operate freely in such a case, and the producer may bring only a limited supply to market, regardless of how great the demand may be for his particular type of goods. The monopolist may charge an exorbitant price and thus receive more money for a small quantity of goods than he would receive for a much larger quantity, the production of which would cost more in time, energy, and money. However, it has been pointed out that practically no purely monopolistic markets exist in the United States under peacetime conditions. Under wartime conditions, the usual economic principles do not operate because of Government regulation for an emergency program. However, the Government may regulate prices in peacetimes, also. This chapter deals primarily with price determination in markets where economic goods are exchanged under peacetime conditions.

Unit 1. Price in a Competitive Market

A. Influence of Supply and Demand.
B. Process of Determining Price in a Competitive Market.

A. Influence of Supply and Demand. In all economic transactions there must be two factors—supply and demand. *Supply* is affected largely by the principle of diminishing returns, which exerts influence by affecting scarcity. An important influence on supply is the cost per unit for the output. The other factor of a transaction, *demand*, is affected by utility or desirability, which involves the principles of *diminishing utility* and *marginal utility*. Diminishing utility affects the amount of a commodity desired and eventually demanded. The price the purchaser will pay is also an important influence on demand. Price is determined not only by diminishing utility but by the purchaser's income, or ability to pay.

Not Much Ability to Pay

From the standpoint of society as a whole, the demand curve DD' shows that as the price falls, the quantity of a commodity taken will increase, or when the price rises the quantity taken will decrease. Fig. 25 illustrates the social demand curve.

The supply-schedule curve[1] (see SS' of Fig. 26) shows that, as the price rises, the amount brought to market to be sold will increase.

Where these two curves cross each other, supply and demand are in equilibrium; that is, the amount brought to market is just equal to the amount taken from the market. The price of the article then is determined at this point of intersection if the article is produced and marketed under conditions of competition where there are many buyers and many sellers. Fig. 27 shows the supply and demand curves crossing each other; their intersection at P represents price. The quantity brought to market is ON and the quantity

[1]See *Dictionary of Economic Terms.*

taken from the market is also ON. Their intersection at P is at a price of $2, which is what it must be according to the two preceding diagrams.

Assume now that the article being discussed is wheat and that the demand for it is suddenly increased. This would be illustrated

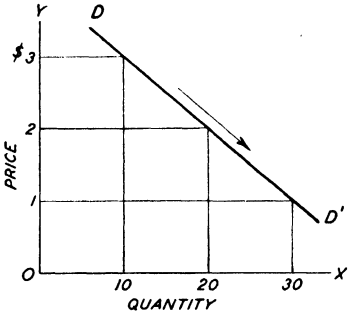


Fig. 25. Social Demand Curve

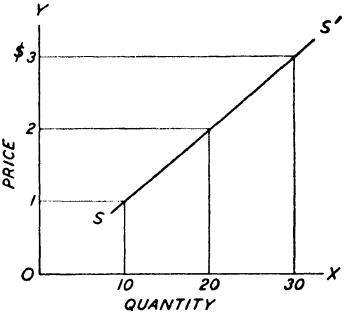


Fig. 26. Social Supply Curve

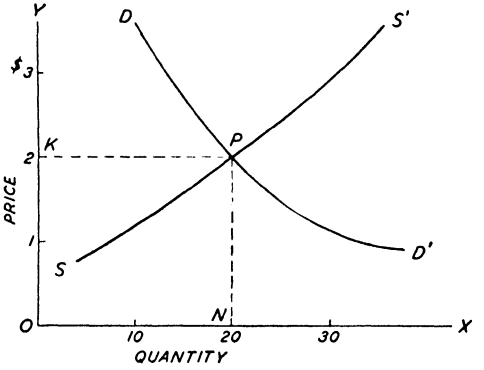


Fig. 27. Equilibrium of Supply and Demand

by a new demand curve lying to the right of the former demand curve; that is, farther away from O on the OX axis. Fig. 28 illustrates such a situation; in quantity it has changed from 10 to 20 and in price from P to P' or K to K'.

Fig. 28 and Fig. 29 both represent changes of demand in the schedule sense, but while Fig. 28 illustrates an increase in demand, Fig. 29 illustrates a decrease in demand and the quantity changes from 10 to 5 and the price from P to P''.

If the demand remains unchanged and the supply is increased, the quantity is increasing from 10 to 20 as shown in Fig. 30, the price changes from P to P'''. If the supply should be decreased in

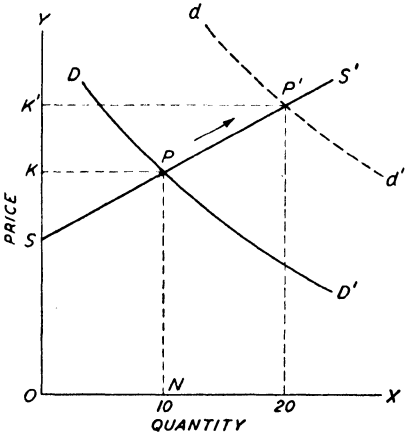


Fig. 28. Changes Due to Increase in Demand in Schedule Sense

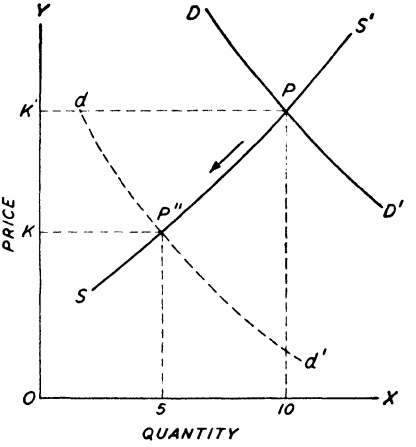


Fig. 29. Changes Due to Decrease in Demand in Schedule Sense

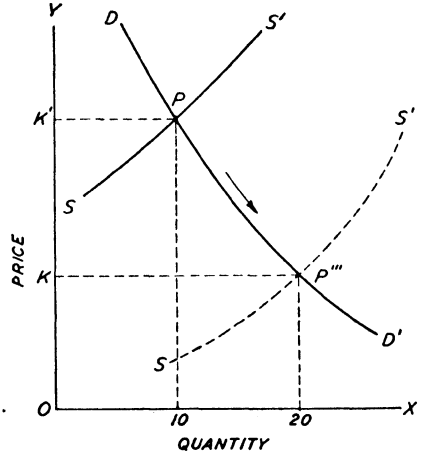


Fig. 30. Changes Due to Increased Supply in Schedule Sense

the schedule sense, just the reverse would take place from that illustrated in Fig. 30. In these diagrams, price is measured on the line OY as a scale line and is the point on that line just opposite P, P', P'',

and P'''. For example, in Fig. 28 price is represented by the line PN; measured on OY this is equal to KO. The same is true in the other diagrams.

B. Process of Determining Price in a Competitive Market. Producers of a commodity sold in a competitive market, for instance wheat, have marketing problems. There may be many producers (that is sellers) and many buyers. The individual producer has no influence in determining the price of wheat, for the quantity he produces is too small to have any effect on the price of all the wheat produced. The United States alone produces as much as 700,000,000 bushels of wheat in one year. The producer can bring his wheat to the market and sell it at the price that has already been set in the world market or he can withhold it from the market. It is not at all likely he will do the latter. The wheat farmer now faces the question as to how much wheat he should sell on the market. He can sell until the price offered in the market just covers the cost of the last or marginal bushel he offers for sale. Fig. 31 makes this clear.

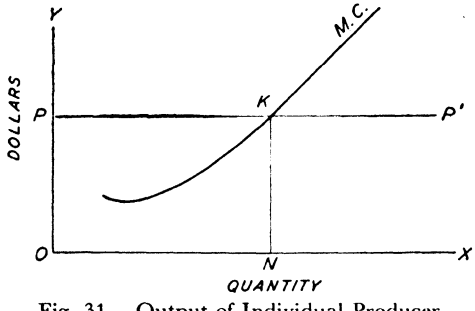


Fig. 31. Output of Individual Producer under Pure Competition

The price line PP' is horizontal, indicating that the price of all wheat (represented by OP) has been set by the point of intersection of the demand and supply curves. Such an intersection is shown where DD' and SS' cross in Fig. 27. This point P, where the supply and demand curves meet, is known as the *equilibrium point.* In Fig. 27, PN (measured on OY as KO) is the price; in Fig. 31, OP is the price. Therefore, PP' is drawn horizontal and is parallel to OX, the quantity line, because all of the wheat will sell at this price. The farmer must decide how much he will sell at this price. The amount will be ON, N being determined by the point K where the marginal-cost curve $M.C.$ cuts the PP' line. A perpendicular dropped from K determines N.

The terms *short run* and *long run* are used continually in connec-

tion with establishing prices. According to P. F. Gemmill,[2] *short run* represents a period of time in which a given stock of economic goods is available for sale. This stock is fixed for this period of time. Taking wheat again as an illustration, each year after the wheat in the northern hemisphere has been harvested there is a definite period during which the quantity cannot be increased. The stock is therefore fixed, and this period during which no additions are being made to the stock is known as the *short run*. The short run of wheat will of course be complicated somewhat by the fact that the southern hemisphere also grows wheat and its harvest time comes beween the successive harvests in the northern hemisphere. However, other products than grain might be used to illustrate short-run or temporarily fixed stock. Many things are manufactured by the roundabout method from the raw material to the finished article, and the supply of such a good cannot be increased quickly since it requires some time to produce the commodity.

Price, then, is set under competition in the short run. First, assume many sellers and many buyers; second, assume that competition is taking place among the buyers to get possession of the goods; third, assume that competition is going on among sellers who wish to dispose of their goods. Price is determined in the short run during the process of bargaining between buyers and sellers.

It must be borne in mind that this is a theory coming down through the classical economists of the middle and later nineteenth century as an analysis of an economic society far different from our modern corporate economy, and many modifications of that analysis would be necessary to bring it up to date. Small enterprises might bargain in the manner described, but today the public utilities are monopolistic in type, and many of the prodigious corporations are international in scope. We are not dealing with a static society, in which the method of making goods does not change and in which the mode of organizing industry continues without alteration; we are dealing with a dynamic society in which movement and change are inevitable, where, for example, labor and capital move from one industry that seems less productive to another that is more productive.

[2]Gemmill, P. F., *Fundamentals of Economics*, Chap. 18.

During the last depression (1933), competition apparently did not set prices, even in some of the fields that are assumed to be competitive; for example, in agricultural commodities. Between 1929 and 1933 the price of these commodities fell sixty-three per cent, while the amount produced fell only six per cent. This illustrates a condition of real competition where during the depression the demand for agricultural products fell off, the price went down, and the farmers curtailed their production. During the same period of time, motor vehicles, supposed to be produced under competition also, fell off only sixteen per cent in price but eighty per cent in

Capital Moves from One Industry to Another More Productive

production. Here, also, there was a falling off in demand for cars but that did not seem to regulate the price. As has been pointed out by Ware and Means,[3] this is an administered price set largely by the managerial office of the companies. These prices are spoken of as inflexible as they do not respond to the supply and demand in the market, therefore they cannot be considered as conforming to the typical method of setting prices under pure competition.

Theoretically, under pure competition supply and demand adjust themselves at a point where the amount paid by the last buyer will just cover the cost of the last unit produced. This will mean that the most efficient producers will survive—those who can bring their unit cost lower than their competitors. Those who must produce at

[3]Ware, C. F., and Means, G. C., *The Modern Economy in Action*, pp. 18–26.

higher costs will be forced out of the market. This is the analysis from the point of view of pure competition, where adjustment is made through price changes that depend on demand and supply.

During the depression beginning in 1929, a good deal was said concerning administered prices where adjustment was made in the administrative offices through changes in production. Assume that we are in the midst of a depression and in the phase of falling prices as indicated by an index number covering a large number of articles. The exponents of free competition hold that an article will continue to sell, since price will adjust itself, until the market is completely cleared of that commodity. This condition is marked by a fall in prices.

Under administered prices, where quantity produced can be controlled by the administration of a corporation, the price of a given article may fall but slightly, since the production of the article may be cut down heavily. During the last depression farm implements showed a heavy fall in production and but a slight change in price, while food products showed a large fall in prices and only a slight decrease in quantity produced. The followers of *laissez faire* would see in this latter an example approaching pure competition; but if we have administered prices and adjustment of Production, the assumed automatic adjustment of pure competition would be destroyed.

KEY POINTS IN UNIT 1

1. In all economic transactions, the two immediate factors which determine market prices are *supply* and *demand*.

2. *Demand* means the desire of a consumer for a particular commodity together with his purchasing power; that is, his ability to pay for the goods wanted. Desire alone does not create a demand.

3. The *supply* of a particular economic good means the quantity offered for sale in a market at a given time and at a given price.

4. Dealers in commodities discovered long ago that prices vary in accordance with the demand and supply of an economic good. The so-called law or principle of supply and demand states that when prices of a commodity increase, the quantity sold decreases; when prices decrease, the quantity sold increases.

5. The principle of diminishing returns affects prices by creating a scarcity.

6. A supply schedule shows that as the price of a good increases, the amount brought to market will increase; that is, when the price of a commodity increases, supply increases.

7. A demand schedule shows that as prices fall, the quantity of that particular commodity bought will increase; that is, as the price decreases, demand increases.

8. Diminishing utility affects the price of a commodity. When the need or desire for a particular good decreases, or the ability to pay for the commodity reaches a low level, as in time of a depression and unemployment, demand for that good decreases and the price likewise decreases.

9. Theoretically, in a purely competitive market, supply and demand adjust themselves at a point where the amount paid by the last buyer will just cover the cost of producing the last unit sold.

10. In such a case, the most efficient producer will survive because he can produce at a lower per unit cost than his less efficient competitors who will be forced out of the market.

Unit 2. Price-Determining Methods under Monopoly

A. Monopoly Conditions.
B. Setting Monopoly Prices.

A. Monopoly Conditions. In the case of monopoly there is one seller and there are many buyers. A monopolist controls all the supply, and his cost of production will have but a limited effect on the price he charges. Price is determined by the capacity for output. If the capacity is 1,200 units, he will limit his production, and therefore his sales, to the point that will give him the largest number of buyers at a price that will enable him to get the most possible for his stock of goods. It has been proved conclusively that this monopoly price will be higher, under practically all circumstances, than a competitive price would be.

B. Setting Monopoly Prices. Under short-run conditions the cost of production of the article does not play any considerable part, except the marginal cost or *the cost of the last unit sold that will sell for*

just enough to cover its own cost. This is equally true whether articles are sold under competition or under monopoly.

TABLE IV—HOW MONOPOLY PRICE IS DETERMINED

Unit Price	Demand	Entire Selling Price
$6	800	$4,800
5	1100	5,500
4	1200	4,800
3	1500	4,500
2	1600	3,200
1	1700	1,700

Table IV and Fig. 32 illustrate a short-run condition, so cost is disregarded. The problem is where to stop production and at what

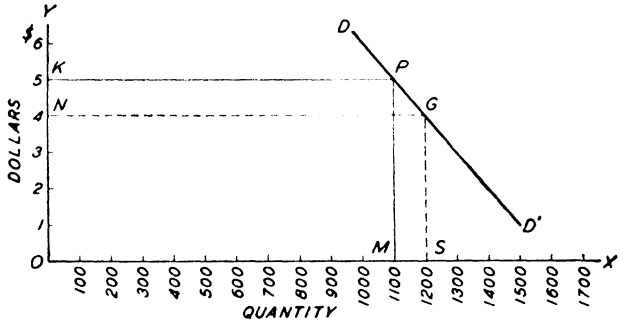


Fig. 32. How Monopoly Price Is Determined under Short Run (Cost Not Considered)

price to sell in order to get the largest revenue. Rectangle *OSGN* represents 1,200 units at $4 per unit or a total of $4,800. The rectangle *OMPK* represents $5 per unit times 1,100 units, totaling $5,500. It is evident that it would pay the monopolist best to limit his output to 1,100 units and raise his price to $5 per unit.

In the case of a short-run price under monopoly when the supply is fixed, there may be a situation where the monopolist must decide, not only on the price, but also where he shall stop production. This will involve the marginal-cost curve *M.C.*, in the same way it is involved under competition, Fig. 31, and also a curve known as the marginal-revenue curve *M.R.*, which shows just how much is added to the total income when an additional unit is sold. Fig. 33 makes this clear.

In this diagram *M.R.* represents marginal revenue, and *M.C.* represents marginal cost, previously defined. The monopolist will stop producing at the point *N* on *OX* where a line dropped from the intersection of *M.R.* with *M.C.* at *E* indicates the place where the marginal cost is just equal to what the marginal unit sold adds to the total sales. A line projected from *E* upward indicates the price at which the monopolist will sell *ON* units to get the largest monopoly profit.

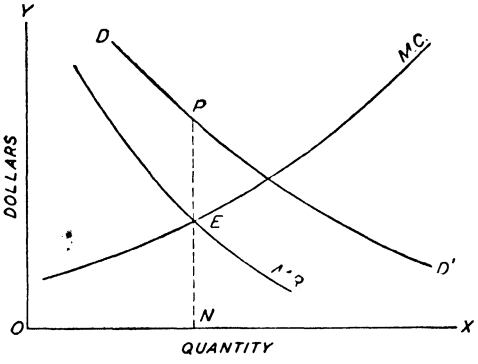


Fig. 33. Demand, Supply, and Price under Monopoly

KEY POINTS IN UNIT 2

1. Under monopoly conditions there is only one seller but there are many buyers in the market.

2. In such a case the monopolist controls all the supply of a certain commodity; his cost of production will have only a limited effect on the price he charges for his product.

3. The price a monopolist sets is determined by the capacity of his output. If his capacity of production is 1,200 units and he sells at a price of $4 per unit, he will receive $4,800; but if he charges $5 per unit he can limit his output to 1,100 units and receive $5,500, or $700 more than when he had a greater output.

4. In the case of short-run price under monopoly, when the supply is fixed, the monopolist will have to decide not only on the price but also on where to stop production.

5. A monopolist will sell his goods at a price which will bring him the greatest net return on his product.

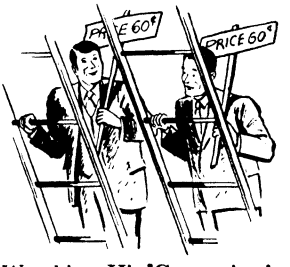
6. Under practically all circumstances, prices in a monopolistic market are higher than in a competitive market.

7. Under short-run conditions in either a competitive or monopolistic market, the marginal cost is important since it is the determining factor in setting the price of a commodity. The price is determined by the cost of producing the last unit sold, that is, the unit that will sell for just enough to cover its cost of production.

Unit 3. Price under Monopolistic Competition

A. New Theory Defined.
B. New Theory Illustrated.

A. New Theory Defined. The monopolistic-competition theory was briefly discussed under the head of *Markets*. Assume that a considerable number of firms are producing an article which satisfies the same want—for example, shaving soap. If a man has formed the habit of using N shaving soap he is using an article that is produced as a monopoly because there is but one company that can produce N soap and can use the name N. We speak of it as a *branded* article since its name is registered in the United States patent office. There are scores of other shaving soaps which are also produced monopolistically. However, all brands are sold competitively, since each producer, through advertising, attempts to secure as many purchasers of his own brand as possible. If there are only a few producers of a given article, the price set by each producer will follow more nearly that of pure monopoly; even then, so that he may not get too far out of line, each producer will give some attention to what his competitors are charging. Without any formal agreement, the policy of these competitors will be one of *live and let live*.



Watching His Competitor's Price

If there are many manufacturers of the article (produced monopolistically because of the branded name), then the setting of price will follow more nearly competitive methods. Here we see the keynote of the new theory in economics: *pure competition is practically nonexistent* barring such dealings as the grain market; *pure monopoly is also practically nonexistent; business is carried on largely from the monopolistic-competitive point of view.* We must know what might happen under pure competition or pure monopoly, but a realistic view of what *is* happening requires an understanding of these newer theories.

B. New Theory Illustrated. When dealing with short-run prices, the overhead cost, variable cost, and total average cost are ignored. On the other hand, when dealing even briefly with long-run price, sometimes called *normal price*, these various costs must be taken into consideration.

If the time of completing a transaction is long enough so that the stock of commodities under consideration may be increased or decreased, the price set takes cost of production into consideration and is known as the *long-run price*. Put it still another way, *long run* means a time long enough so that production can adjust itself to care for increased or decreased demand.

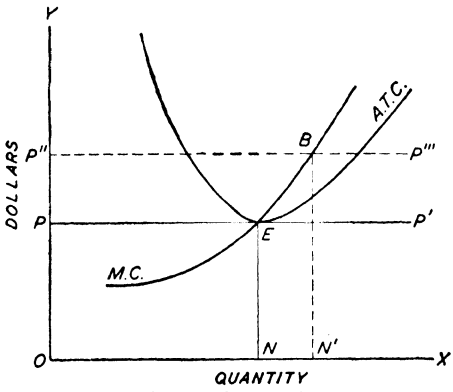


Fig. 34. Relation of Individual Producer under Pure Competition to Change in Demand in Total Market

When dealing with prices as set in the long run, the various types of cost to be considered include overhead or fixed costs, variable costs, total costs, and marginal costs. The total of each of these and also the average overhead, average variable, and average total costs are important factors. There is no average marginal, as marginal cost is found by subtracting one total cost from the total cost that follows it.

In pure competition and short run, the only curves shown in our diagram, Fig. 31, are the price-line curve which is horizontal and is determined by the equilibrium point of the entire social supply and demand, and the marginal-cost curve which determines where the producer will stop selling his product. Under pure competition and long run, the diagrams show the importance of the cost curves for regulating the production of goods to meet changes in demand and because the producer must find out what effect a change (for example, an increase in demand) has on the cost of producing additional units and, consequently, on long-run price.

Note that Fig. 34 is like Fig. 31, but an average total-cost curve *A.T.C.* is included, also a second price line $P''P'''$ representing what

would happen if there were an increase in demand. In Fig. 35, which diagrams market conditions, the line dd' shows an increase in demand and a new price results at $P'''P''$. Our definition of *long run* shows there is a readjustment due to a change in demand. In this case the demand increased, more were taken (the increase being represented by K to S), and the price rose. We are familiar with such cases in everyday life; it happens to many of the commodities we buy.

Fig. 34 is a diagram representing a producer and shows what happens to his business under the market conditions shown in Fig. 35. When the price is PP', in Fig. 34, the producer will stop producing where the average total cost curve, $A.T.C.$, is at its lowest point, which will be at E. That is also the point where the price will just cover the last unit he produces and therefore the marginal cost curve $M.C.$ passes through this point. Notice that $A.T.C.$ is tangent to PP' at the point E which can be called an *equilibrium point.* The rise in price that took place in the market (Fig. 35) is indicated in Fig. 34 by $P''P'''$. When the price rises to this point, the producer can go on producing until his marginal cost is just covered, which would be at point B. Then he has expanded his output from N, where it was at first, to N'. This adjusted his output to meet the new demand and to cover the higher cost per unit, for the $A.T.C.$ curve is now beginning to turn upward. To an individual producer under competition, the price line also represents demand. That being true, the price line may be called a *demand curve* and also a *marginal revenue curve.*

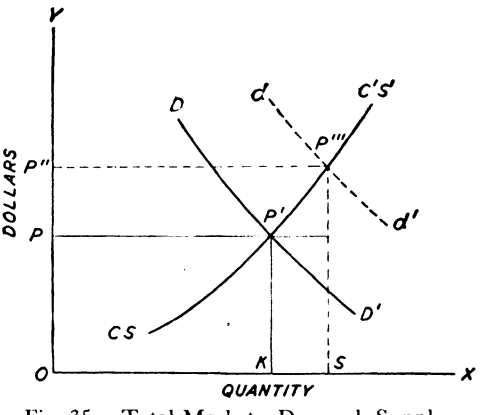


Fig. 35. Total Market—Demand, Supply, Price—under Pure Competition

For monopoly the diagram would be as shown in Fig. 36. Since under monopoly one producer sells all that is sold of his particular product, the demand curve is the same as the social-demand curve. This is equally true for monopolistic competition. Note the mar-

ginal-revenue curve *M.R.*, Fig. 36, which shows the revenue added by the sale of each additional unit. It was pointed out in the discussion of Fig. 34, that there the marginal-revenue curve is represented by the price line, which under competition represents price, demand, and marginal revenue.

Under monopolistic competition, the monopolist would hold production at *N* of Fig. 36, the point determined by the perpendicular dropped from the intersection of the marginal-revenue and the marginal-cost curves. Note that *N* is also in line with point *P*, where

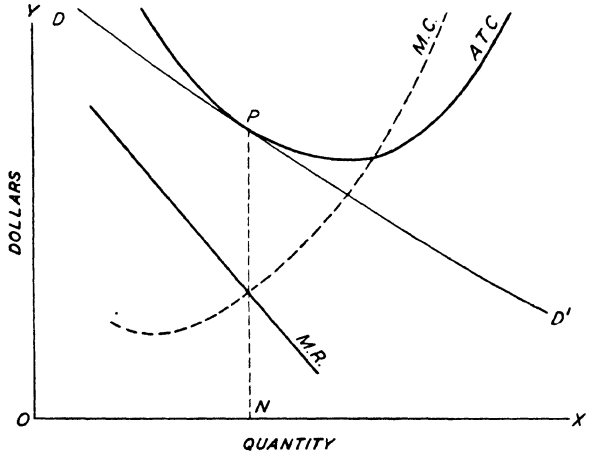


Fig. 36. Price under Monopoly When Average Total Cost Is Considered

the average total-cost line is tangent to the demand curve. This indicates that the last unit sold will bring a price that just covers the cost of that unit.

Some economists use the expression *semi-monopoly* in describing the system of producing and selling branded articles that is discussed in this text as *Monopolistic Competition*. The efforts of the producers of these branded articles are usually largely devoted to attempting to secure the largest possible sale for their own particular brand. They may consider that offering *free deals* to attract buyers is a better policy than lowering the price and thus selling more units. A *free deal* means offering something for nothing, provided the person to whom the article is given purchases a certain number of

the branded articles. The maker of a certain brand of soap may advertise not only the quality of the soap but also that he will, for a specified number of coupons, give any one of several free gifts. There is a logical reason for this process. If the producer of a branded article advertised that he would lower its price, the other branded soaps would also be reduced in price. It is difficult to bring the original price back once there is a cut; but if the price is held the same and free gifts are offered, it is not difficult to drop the free gift feature later, since the customer regards the free deal as something given and that it can therefore be withdrawn.

Free Deal Night

Summarizing, it has been pointed out that branded products must compete with other branded products of the same type. While all are produced monopolistically, in the market these products are sold in competition, and this affects the price. Under pure monopoly the monopolist can set his price at the point that will make most profit. Under monopolistic competition the firm must always watch the prices of competitors.

The foregoing discussion is a comparatively new economic thought stressed by the so-called *monopolistic-competitive theorists*. To the individual producer, under conditions of pure competition the sales curve, the demand curve, and the price curve are represented by one line that is a horizontal line perfectly elastic and parallel to the *OX* axis, see *PP'* of Fig. 31. Under conditions of pure monopoly the demand curve slopes down from the left to the right. This is always true when only one firm is producing the goods in question and supplies all that the social demand will take, since social demand always slopes down from left to right. Under the monopolistic-competitive condition the demand curve also slopes down from left to right. Another point: in pure monopoly one control is exercised over both price and supply; under pure competition no one person or organization exercises such control.

The importance of a clear idea of the new theory is emphasized by Professor F. Zeuthen who holds that neither pure competition

nor pure monopoly is true to the reality of the economic world, that they only treat of the margins of reality and that reality must be found between these two margins. He says:

> Generally, economic theory deals with nothing but extremes . . . . those of absolute monopoly and of unhindered competition, whilst the space between them, comprising all or most of the actual economy, is either abandoned as quite indeterminate or it is left to the reader to guess where the result will fall.[4]

KEY POINTS IN UNIT 3

1. According to the monopolistic-competition theorists, pure competition does not exist in the United States today, neither does pure monopoly.

2. A ruthless competitive market may become a monopolistic market; that is, if the most efficient producers of a certain commodity reduce the price until it is so low that small and less-efficient producers are forced out of the market, eventually all competitors, except the most efficient large-scale producers, can be eliminated.

3. A comparatively small number of large-scale producers can form a monopoly by means of a so-called *live and let live* policy; that is, each producer will give some attention to what his competitors are charging without any formal agreement.

4. Goods may be produced monopolistically by means of trademarks. These goods are sold then in a competitive market where other producers of similar branded goods may advertise their products. This creates a market which some economists speak of as a *monopolistic-competitive market.*

5. One form of advertising known as *free deals* is used by many producers. A *free deal* means the giving away of certain articles as prizes with the purchase of a certain amount of goods.

6. In dealing with prices set in the long run, costs to be considered must include: overhead or fixed costs, variable costs, total costs, and marginal costs.

7. *Marginal cost* is the cost of production of the last unit of the quantity sold.

8. Marginal cost is found by subtracting one total cost from the total cost that follows it.

9. Under conditions of monopolistic-competition, a monopolist will hold production at the point where the last unit sold will bring a price which just covers the cost of producing that unit.

10. Under a pure monopoly the monopolist can set his price at the point that will make most profit. Under monopolistic competition a producer must always watch the prices of competitors.

[4]Zeuthen, F., *Problems of Monopoly and Economic Warfare*, p. 1.

Unit 4. Price Regulation under War Conditions

A. Wartime Prices.
B. Priorities.
C. Rationing.
D. Requisitioning.
E. Subsidies.
F. Ceiling Prices.

A. Wartime Prices. The mechanism and method of working of pure competition have been discussed in reference to price determination. Assuming that, in peacetime, prices are determined by pure competition—forces controlling supply and demand—what change, if any, might war bring about in setting prices? If we accept the theory that, under perfect competition, prices are established at a point equal to marginal cost of production, which (marginal cost) approaches the average cost in all firms in the industry, how would this be changed by war conditions?

It has been claimed by some, that, under competition, production would go on and prices would be determined at a point where the cost of the last unit produced (that is, the marginal cost) would be just equal to the price that the marginal buyer (the last buyer) would pay for it. This price would be established by competition among the producers on one side of the market, and competition among the buyers on the other side of the market.

Under wartime conditions, prices in many fields have not been left to the forces of competition; they have been the result of controls introduced to modify the price system previously discussed. Among these various controls are: priorities, rationing, requisitioning, subsidies, and direct price regulation. Also in some cases the Government has taken over and run industries.

Let us turn briefly to a consideration of some of the measures resorted to during World War I. One of the first bodies created to bring industry into a condition that would meet the requirements

of war was the War Industries Board created July 1917. Out of this, in March 1918, came the Price Fixing Committee and the War Labor Board. Other committees also set up and exercising wide powers were the United States Fuel Administration and the United States Food Administration.

In 1917 the Priorities Committee was created. The duty of this committee was to determine the order in which demands for goods should be met. This committee recognized that some commodities are more important than others. All commodities were to be rated preferentially, with ordinary war needs coming first.

B. Priorities. In determining priorities, first of all a preference scale must be set up by some central body that is in control. This scale will give a ranking to orders for supplies of materials. In World War II, priorities were provided for by Congressional legislation. About the middle of 1940 the President was empowered to use priorities in placing orders for the Army and Navy. Many changes in authority were made from time to time and at the beginning of 1942 a War Production Board was set up. The function of this board was to make all decisions as to the production and procurement of commodities for use by both civilians and the armed forces. The board thus provided for the organization of resources by a central control.

C. Rationing. During World War I, rationing was used extensively in Europe, but not in the United States except in the case of sugar. *Rationing* means that each person may obtain only a definite and limited amount of a commodity. However, such goods as are rationed, may be rationed as to amount, as to type, or as to the amount spent for the commodity.

The Priorities and Allocations Act, passed May 31, 1941, provided the legal basis for rationing in the United States. In order to meet shortages in supplies of certain civilian goods either curtailed by, or needed for, production of goods to carry out the war program for World War II, consumer rationing was begun in 1942. The Act stated that the President "may allocate such material in such manner and to such extent as he shall deem necessary" in the public interest.

One of the questions in economics that may be raised is whether rationing really decreases the total sacrifice of the population, in

other words whether it makes all the people more comfortable. Here we are met with the problem of the marginal satisfaction individuals may secure from the last units they are allowed to consume by the rationing process. It is probably not possible to answer the question as to the total satisfaction secured by the entire population. It is generally conceded that there is a close relation between rationing and price control.

Assuming that people have various quantities of money to buy goods, and that after the needs of the armed forces are supplied there is a limited quantity left to be distributed among civilians, if there were no control of prices exercised it might be that the demands of the buyers would raise prices and there would be no equality in the division of the goods which are to go to consumers. However, if prices are controlled and not allowed to rise constantly, consumers of various income levels will be able to satisfy their wants more equitably. It has been shown that prices can be controlled and rationing can be enforced, so that price indexes will rise little.

D. Requisitioning. Another method used in wartime to keep supplies of goods moving at the necessary time is *requisitioning*. This means that the Government, in order to meet the war demands, can step in and take over the running of a plant privately owned. This would occur when the private management either did not comply with the Government's demands or was not able to do so. When a plant is taken over by the Government, it is assumed that the private management will receive a fair income from the business. This method of requisitioning is sometimes spoken of as *commandeering*.

From another angle the Government may enter directly into business; that is, it may use Government money to construct industrial plants. How far this has been carried can be seen by examining the statistics that show how much was expended by the Government and how much by private industry in new construction for purposes of defense. Chart IX was adapted from a chart devised by the Office of Production Management. It shows the total amounts spent for various defense products; in addition it shows what part of the production was financed by private funds and what part was financed by Government funds up to September 1, 1941.

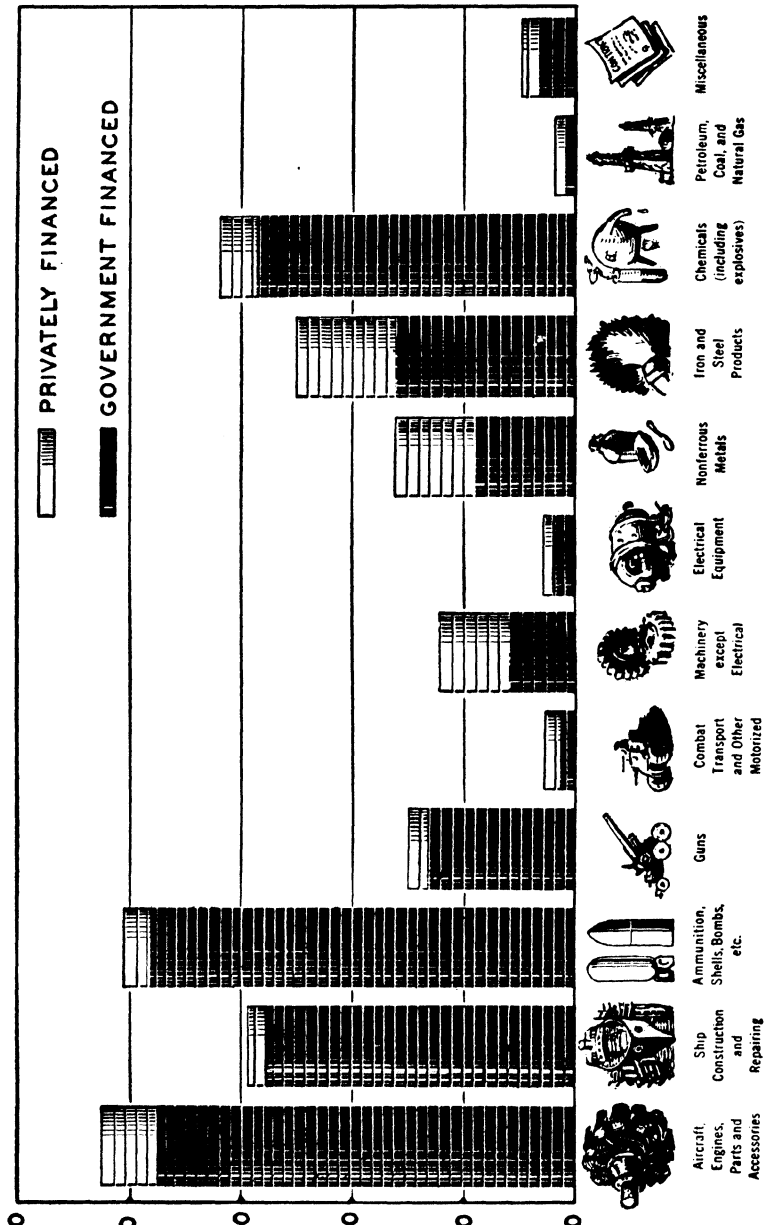


Chart IX. Value of Defense Contracts Financed by Private and Government Funds up to September 1941

Adapted from *Economics Principles and Problems*, James E. Moffatt and Others, 1942.

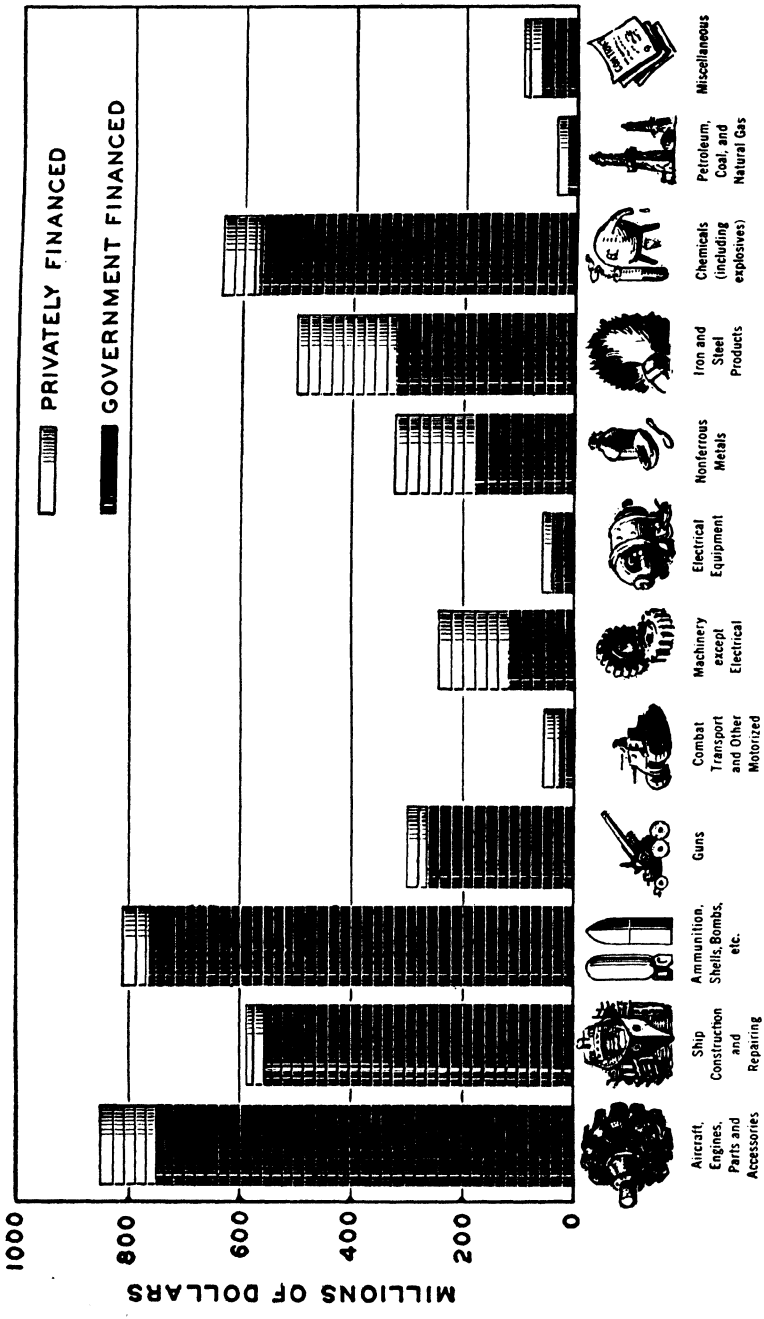


Chart IX. Value of Defense Contracts Financed by Private and Government Funds up to September 1941

Adapted from *Economics Principles and Problems*, James E. Moffatt and Others, 1942.

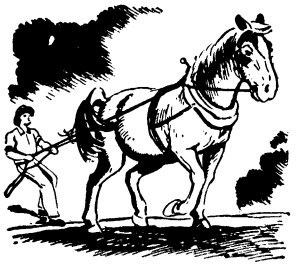
E. Subsidies. Subsidies also have an effect on prices. Assume that there are several plants producing the supply of a given commodity. These different plants produce at different unit costs; the most efficient and most advantageously located plants will produce at a lower cost than the less efficient. However, the plants which produce at a higher cost, if their product is required to meet the demand, must receive a price for their product that will cover the cost or they cannot stay in the market. If the market price must cover the higher-cost producer's goods, this will mean that the lower-cost producers will receive a considerable profit and the consumers of these goods must pay a high price. If, however, the Government enters in and provides a subsidy—that is, if the Government covers that part of the higher-cost producer's cost which is in excess of the cost of the low-cost producers—the higher-cost producers can send their goods to market at the same price as the lower-cost producer. This will mean that the consumer of the goods can buy them at a price which covers the cost of production of the lower-cost producer but the higher-cost producer can stay in the market because he is receiving a subsidy.

Subsidies, then, aid the less-efficient producers to compete with the lower-cost producers and, if the consumers are to receive the benefits from subsidies, the subsidies must hold prices steady and not result in continuously rising prices as production expands.

The various efforts made to regulate prices have been largely for the purpose of keeping prices steady and avoiding rises that would cause inflation. It has been claimed that Britain has kept the price of foods practically steady by means of subsidies; however, it has required 100,000,000 pounds paid yearly by the government as subsidies to accomplish this. This amount paid by the government is considerably less than what would have been paid by the consumers if no subsidies had been provided by the government and the consumers had been compelled to pay the rising prices. Another important fact to consider is that the government is one of the great purchasers of goods. If through the use of subsidies the prices of goods are kept stable and low, the government will be able to secure larger quantities of goods for its money.

Subsidies are a temporary device to check runaway prices, although it is recognized that the use of subsidies does away with the freely competitive market for the time being. The idea of subsidies is not new. They have succeeded in many other countries in holding prices steady and we are familiar with them in several fields; for example, public education, libraries, public health, all are subsidized either by public funds or private gifts.

F. Ceiling Prices. The effort to control prices in the United States during World War II began before the attack on Pearl Harbor. In fact, in May 1940, the President appointed Leon Henderson as Commissioner of Price Stabilization. At first the activity in controlling prices was confined almost entirely to metals, especially those that would be used in defense industries, and the prices were stabilized largely through agreements with the producers. Price schedules were issued as early as February 1941, followed by others in March and April. These schedules set a definite ceiling on the commodity prices involved. This was the beginning of the efforts to set maximum prices on goods and services, and throughout this first period the Price Commissioner depended mostly on voluntary co-operation in making agreements with the producers.



Runaway Prices

A second step was taken when in 1942 the Emergency Price Control Act was passed. This Act made it possible for the Office of Price Administrator (OPA) to fix ceiling prices for any commodity and also for rents in areas where there were large numbers of defense workers. Civil or criminal action could be taken to enforce these price ceilings. Emergency Price Control Act provided that agricultural price ceilings cannot be set below the minimum prices that should be set by the Price Administrator with the approval of the Secretary of Agriculture.

A third step was the issuing of the General Maximum Price Regulation by the Office of Price Administration in April 1942. This established as ceiling prices the prices of commodities and services as they were in actual trade in March 1942. This widely

expanded the efforts at price control since it included all commodities and services, barring a few exceptions.

KEY POINTS IN UNIT 4

1. Economists recognize that under peacetime conditions the principle of supply and demand is an important factor in determining prices of commodities.

2. Under wartime conditions, the working of normal factors of pure competition is radically changed by Government regulation of the production and sale of commodities.

3. The United States has tried various kinds of control for prices and for production of commodities.

4. These regulations include: priorities, rationing, requisitioning, subsidies, and direct price regulation.

5. *Priorities* is a system of control over all essential raw materials going into the country's industrial production. During World War II this regulation measure was in the hands of the War Production Board.

6. *Rationing* means that each person may obtain only a definite and limited amount of a commodity. The goods rationed may be rationed as to amount, as to type, or as to the amount spent for the commodity.

7. It is generally conceded that there is a close relationship between rationing and price control.

8. During World War I, rationing was used extensively in Europe, but was not used in the United States except in the case of sugar.

9. *Requisitioning* means that the Government, in order to meet the war demands, steps in and takes over the running of a plant privately owned. This is also sometimes called *commandeering*.

10. *Subsidies* are financial assistance given to private industries when it is deemed for the benefit of the public that the Government grant such bounties.

11. Subsidies are not new in our history. Certain types of subsidies with which we are all more or less familiar are the public schools, public health, and public libraries, all of which are subsidized either by public funds or private gifts.

QUIZ QUESTIONS ON CHAPTER VI

1. *What two factors determine prices of commodities in a competitive market?*

2. *Does desire alone create a* demand *for a commodity?*

3. *In what way does a rise in price affect the quantity sold? That is, will the demand increase or decrease as the price rises?*

4. *In what way does diminishing returns tend to create a scarcity of a particular commodity in the market?*

5. *Give an example of how diminishing utility may affect the price of a commodity.*

6. *What do we mean by the term* monopolistic market?
7. *What determines the price a monopolist will set on his product?*
8. *Are prices generally higher or lower in a monopolistic market?*
9. *What is a "live and let live" policy? How does such a policy affect prices?*
10. *What is meant by* free deals *in advertising? Give an example.*
11. *When setting long-run prices what costs must be considered?*
12. *What is meant by* marginal costs? *How are these costs found?*
13. *In what way does wartime regulation of prices affect prices in a competitive market?*
14. *Name three ways in which prices are regulated under wartime conditions.*
15. *During World War II, what were some of the duties of the War Production Board?*
16. *Give an example of one type of subsidy with which we are all familiar.*
17. *Was rationing used in the United States in World War I?*
18. *What is meant by* commandeering *a plant or industry?*
19. *How does the principle of supply and demand operate under wartime conditions?*
20. *What does a demand schedule show? How does war affect a demand schedule?*

Chapter VII

INDEX NUMBERS, PRICE LEVELS, CRISES

OBJECTIVE: Characteristics and trends of business cycles as indicated by index numbers and statistics compiled by the Government, by private foundations, and by research organizations.

PREVIEW: *We have learned that laboratory work in a social science cannot be performed in the same way in which it is done in the physical sciences. Experiments in a social science involve so many factors, conditions, and changing circumstances, as well as people, that any results obtained must be carefully checked again and again in order to make sure the conditions have been kept as nearly uniform as possible throughout all the various phases of the experiment. However, there is a method of great value that can be used in the social sciences. This makes use of statistics and index numbers. The statistical method lays emphasis on characteristics common to a large group treated quantitatively. In compiling certain kinds of statistics, considerable emphasis is placed on working out index numbers.*

An index number is a measuring device for indicating changes in prices and other economic conditions. An index number may be defined as a method of finding the increase or decrease in a phenomenon from one point of time to another. Some of the so-called phenomena in which change is measured by the use of index numbers are: prices, their rise and fall; unemployment, the increase or decrease in the number unemployed; freight car loadings, larger or smaller number of cars loaded between two given dates; building contracts, increase or decrease in the number of contracts let within a specified period; business failures, number of enterprisers who have gone out of business during a given period of time.

Business men use index numbers as a means of forecasting future trends. Use of index numbers in the form of price levels is helpful in a study of the business cycle, which consists of alternating periods of prosperity and depression. A business cycle, theoretically, extends from one economic depression to another, or from one period of prosperity to another; this chapter deals with the business cycle, causes, phases, extent, and influence on prices.

Unit 1. The Importance of Index Numbers

A. Use of Statistics.
B. Statistics and Index Numbers.
C. Additional Purposes of Indexes.
D. Other Uses of Indexes.

A. Use of Statistics. It has been pointed out that laboratory work in a social science cannot be done with the precision that is possible in the physical sciences. Social science deals with a large number of factors that vary continuously, and experiments involve so many factors, conditions, and changing people, that any result obtained must be checked carefully in order to make sure the conditions of the experiment have been kept as nearly uniform as possible. Of course, the same experiment must be tried many times, as is done in the physical sciences, before the results are worth anything and before they can be used to formulate a principle or indicate a tendency.

However, it has been shown that there is a method of great value that can be used in the social sciences. This is the use of statistics. The statistical method lays emphasis, not on something peculiar to an individual, which is the case method, but on characteristics that are common to a large group and that can be counted or measured, in other words treated quantitatively. For example, suppose that a workmen's compensation law exists in a certain state, and a workman of that state is injured while handling a piece of machinery. He claims that he was not shown how to use the machine properly. It would be necessary to make a study of all the men in the state who are running similar machines, the number of accidents that have occurred and the length of time each man was trained in the use of the machine. Having secured this definite information, the facts must be classified in order to determine the proper length of time needed for training the average man, so that injuries can be avoided.

Another illustration may help to make this clear. Before deter-

mining a minimum wage it would be necessary for social science workers to make a careful study of a large number of family budgets. Upon the basis of information obtained from the budgets, it would be possible to make an estimate of the least wage upon which a family of any certain size could subsist. Statistical studies are much used by traffic lines allocating the number of trains and cars that must be run. This information must be based entirely on facts, such as the number of people who have purchased tickets during each hour of the day over a considerable period of time. In making any such study it is necessary that a sufficiently large number of facts be collected, or as the statisticians say the "sample" must be large enough so that it will be really representative.

B. Statistics and Index Numbers. In compiling certain kinds of statistics considerable emphasis is placed on working out index numbers. An *index number* is a number derived from a series of observations and used in measuring the increase or decrease in a so-called *phenomenon* from one point of time to another. Some of the phenomena in which change is measured by the use of index numbers are prices, their fall and rise; unemployment, the increase or decrease in the number unemployed; freight car loadings, larger or smaller number of cars loaded between two given dates; building contracts, showing the increase or decrease in the number of contracts let within a specified period; business failures indicating the number of enterprisers that have gone out of business during a given period of time. The index numbers on a certain phenomenon may be recorded chronologically for a considerable number of different dates; when the numbers are connected by a line, a graph is formed showing clearly how the phenomenon studied has been increasing or decreasing. As a further illustration index numbers may be worked out for the price of commodities as shown in Table V. This table is, of course, not a complete index; it is presented only to illustrate the process of finding index numbers. The table shows five different years with 1901 as the base year. The base in percentage is always represented by 100 per cent.

In column (1) are written the names of four commodities, and in column (3) their prices in 1901. Now since 1901 is the base year, in column (4) *100* represents 100 per cent, which is the point from

which all of the computations were made. *S. A.* at the top of column (4) stands for *Simple Arithmetic.* Adding column (4) gives *400* per cent which is then divided by the sum of the commodities which is *4.* This gives *100* per cent as an average for all commodities. In the year 1902 prices for each commodity changed; this is indicated in column (6). Each price in column (6) was divided by the corresponding price in column (3) and the results were recorded in column (7). Thus the percentages shown in column (7) indicate the relationship of 1902 prices to 1901 prices. This method was followed in each case throughout the table to find the percentage of each given price, always dividing by the base price. The 1902 percentages shown in column (7) were then added and found to be *516* which was divided by the number of the commodities, *4;* this gave *129.* This number is the index for 1902 and shows that prices rose 29 per cent above what they were in 1901. Proceeding with this method through all the years shown, each of the simple arithmetic indexes can be found.

Indexes may also be figured by a method called *weighted arithmetic.* In column (2) certain numbers are placed opposite each commodity. These numbers show the *weights;* that is, they indicate the relative importance of each of the commodities in trade as a whole. This is known as *explicit weighting.* To obtain the numbers given in column (5) the percentages shown in column (4) are multiplied respectively by the weights given in column (2). Adding the percentages in column (5) we have 1100. This time, instead of dividing by the sum of the commodities, *4,* we divide by the sum of the weights, which is *11.* This gives us *100* as our *weighted index.* In this case it is the same as the index arrived at by simple arithmetic, but this is not always the case, as is shown by the difference in 1903. There, $1536 \div 11 = 139$, while the index derived by simple arithmetic is *142.* The 100 per cent, found in column (5), indicates the base per cent in the weighted method just as the 100 per cent found in column (4) is the base in the simple arithmetic method. The method indicated for the weighted arithmetic is followed for each year and finally a graph is drawn, see Fig. 37, which represents the directions in which prices were moving. They rose till the close of the year 1903 and then dropped suddenly.

Table V—Simple Arithmetic and Weighted Index Numbers

		1901			1902			1903			1904			1905		
		S.A.*	S.A.	W.†	S.A.	S.A.	W.	S.A.	S.A.	W.	S.A.	S.A.	W.	S.A.	S.A.	W.
(1) Commodity	(2) Weight	(3) Base Price	(4) Base per Cent	(5) Base per Cent	(6) Price	(7) % of Base	(8) % of Base	(9) Price	(10) % of Base	(11) % of Base	(12) Price	(13) % of Base	(14) % of Base	(15) Price	(16) % of Base	(17) % of Base
Cotton.....	2	$0.05	100	200	$0.06	120	240	$0.08	160	320	$0.04	80	160	$0.03	60	120
Coal.....	2	3.00	100	200	3.60	120	240	4.00	133	266	2.40	80	160	1.50	50	100
Iron.....	4	4.00	100	400	4.40	110	440	5.00	125	500	3.20	80	320	2.40	60	240
Wheat.....	3	.60	100	300	.996	166	498	.90	150	450	.48	80	240	.30	50	150
4	11		400	1100		516	1418		568	1536		320	880		220	610
			100	100		129	129		142	139		80	80		55	55

*Simple arithmetic. †Weighted.

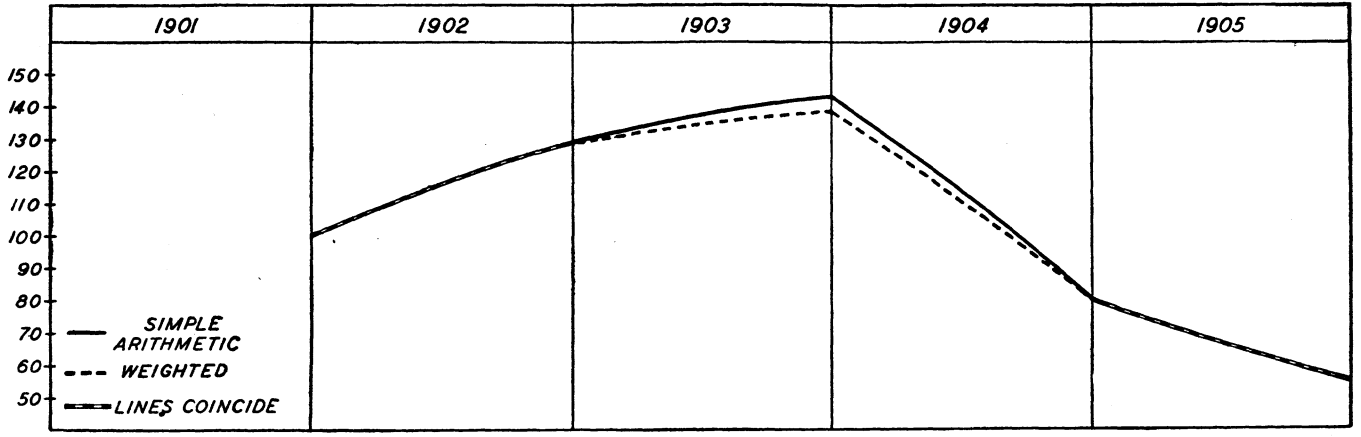


Fig. 37. Graph of Price Indexes

It is a mistake to assume that index numbers are used only or usually for prices. Anything that can be measured and that changes from one period of time to another can be indexed and a graph may be drawn to give a visual representation of it. An understanding of indexes aids greatly in understanding material presented in financial and industrial papers.

C. Additional Purposes of Indexes. It is impossible really to understand much of the material in some types of magazines and the financial pages of daily newspapers without knowing how index numbers have been used to show changes from time to time in certain financial events. The businessman must watch continuously the graphs that show what is happening in the financial world. Price changes are only one of the indexes of interest to him. When studying business cycles the businessman finds he must watch many of the changes going on, such as the increase in unemployment and changes in bank reserves. It is not only his own business with which he is concerned but the surrounding background of the business world in the midst of which he operates his enterprise.

Without an understanding of the results secured through working out index numbers, any student will find it hard to thoroughly understand current books dealing either with business or economic problems. There are some factors spoken of as *barometers of trade*, factors which a business man or a scholar in economics must observe closely to see whether the index is rising or falling, for these factors indicate the approach of foul or of fair weather in business activities. In normal times steel production is considered such a barometer because of the importance of steel in so many lines of trade and also because of the great size of the steel industry. In recent years automobile production has been considered as something of a barometer of trade conditions. Both the steel and automobile industries are considered indexes of business activity. Other important indexes include freight-car loadings and bituminous-coal production.

In Fig. 37 which accompanies the index table the percentages are scaled along the vertical line, the 100 per cent being placed near the middle so that the percentages falling below and rising above that percentage can be shown. Second, the years are indicated along

the horizontal line and the points that plot the line are indicated as being at the end of the year since the index for a year must be plotted at the close of the year.

The producer of goods especially watches the price index, called the *price level,* to see whether it is rising or falling. If it is rising, it is a fair indication that business is prospering and that there will probably be a demand for his goods. Usually, then, he will go on producing. But if he finds prices are falling, he may interpret this to mean that the demand for goods is falling off and that if he continues producing there is danger he will find no market for his goods; under such circumstances he will curtail production or continue producing only as middlemen place orders with him in advance.

D. Other Uses of Indexes. Index numbers are one of the means used by businessmen for forecasting the future; they may help a producer decide how much and when to produce, or help him decide when and how much raw material to buy. Take for example, a manufacturer of reapers: If there is a serious drought that decreases the wheat crop in certain parts of the country, this will mean that the price of wheat will probably rise and the wheat farmers in areas not touched by the drought will have larger incomes. Those who have escaped the drought will be more prosperous and able to buy more farm machinery. As another example, take a shoe manufacturer: The statistics may show that a large number of cattle are being sent to market. This probably will mean low prices for leather. The shoe manufacturers may delay buying hides until the price of leather is lower.

The producer of commodities is not the only one interested in watching indexes. The consumer is equally interested. When a laborer sees the price level rising he knows this will affect his standard of living if wages remain the same. If prices rise and his money wage does not change, his real wage (that is the commodities he actually gets) falls. Perhaps he hoped to build a house for his family, but because of the rising price of building materials, due to the great

demand for them, he cannot build a house. If the price level rises too high, he does not buy new clothes for himself and family but they continue to wear their old garments for a while longer, hoping that the price level of clothing may be lowered. In other words, there is no one who is not affected by the price level. It may result in high profits for some; it may result in losses and deprivations for others.

KEY POINTS IN UNIT 1

1. Comparative changes in price levels are measured by a statistical device known to economists as an *index number*.

2. An *index number* may be defined as a method of finding the increase or decrease in a phenomenon from one point of time to another.

3. Some of the so-called phenomena in which change is measured by the use of index numbers are: prices, their rise and fall; unemployment, the increase or decrease in the number unemployed; freight car loadings, larger or smaller number of cars loaded between two given dates; building contracts, increase or decrease in the number of contracts let within a specified period; business failures, number of enterprisers who have gone out of business during a given time.

4. In compiling certain kinds of statistics, considerable emphasis is placed on working out index numbers.

5. Experiments in a social science must be performed by methods that differ from those used in a physical science laboratory. One method of great value is the use of statistics and index numbers.

6. The statistical method lays stress upon characteristics common to a large group of individuals that can be counted, or to some economic product measured quantitively.

7. Business men use index numbers as a means of forecasting future trends in business cycles.

8. The producer of commodities is not the only one interested in watching indexes. The consumer is equally interested. For example, when a day laborer sees the price level rising he knows that if his wages remain the same, his standard of living will be lowered because of the higher cost of commodities.

Unit 2. Business Cycle

A. Business Cycle Defined.
B. Phases of Business Cycles.
C. Causes of Business Cycles.
D. Suggested Remedies for Business Cycles:
   1. Regulation of Industry.
   2. Regulating Credit.
E. Extent of Business Cycles.
F. Influence of Price Level.

A. Business Cycle Defined. An understanding of index numbers and the price level is important in studying the business cycle. A business cycle is made up of four stages: prosperity, a crisis and decline, depression, and recovery; it is correct to call it a cycle, since it extends from one period of prosperity to another.

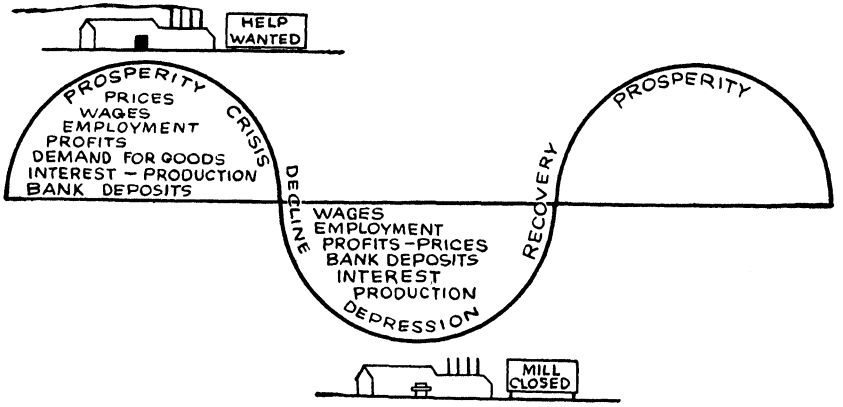
In the history of the United States the business cycles have been something less than 7 to 12 years long. The most important included the depressions which began in 1837, 1857, 1873, 1893, 1920, and 1929. Business cycles are characterized by many other factors than changes in prices. Among these are *secular trends*, of which there are about four in a century. A *secular trend* is a period of slow change in price that is thought by some to be closely associated with periods of considerable change in the quantity of money. The secular trend appeared in the United States, beginning, so far as our statistics show, with high wholesale prices in 1814, followed by a long irregular fall marked by ups and downs to 1843, then rising again to 1864 during the Civil War and falling to 1896, rising once more to 1920 and falling to 1933.

B. Phases of Business Cycles. There are four phases in a business cycle. Certain factors seem to characterize each of these periods, which may be called *prosperity*, *decline*, *depression*, and *recovery*. A list of characteristics of each of these periods indicate in what direction these tendencies are moving.

First Period. Prosperity is marked by prices rising too high, unemployment slight and decreasing, wages high, profits large,

interest rates high, demand for goods large, production large, bank deposits large, bank reserves low. All of the foregoing can be represented by the use of index numbers and accompanying graphs. It is often pointed out that confidence is usually high at this period but confidence cannot be graphed, though it enters in to modify the previously mentioned characteristics.

Second Period. Turning to the period of decline it is found that readjustments are necessary because wages fall, unemployment increases, prices are lower, bank reserves increase, deposits de-



Business Cycle—Alternate Periods of Prosperity and Depression

crease, profits decrease, interest rates are lower, the demand for goods decreases, and business activity slows down.

Third Period. The third period is that of depression: interest rates are low, wages low, prices low, bank deposits small, bank reserves high, unemployment high, industrial activity at its lowest point. Psychologically, this is a period of extreme pessimism.

Fourth Period. The fourth period is that of recovery; wages begin to rise but not as fast as prices rise, employment begins to increase, there is a decided increase in business activity, interest rates and profits increase, bank deposits increase and reserves decrease, the demand for goods increases and this brings an increase in production, and slowly confidence returns modified by caution.

C. Causes of Business Cycles. It is difficult to make any definite statement as to what causes business cycles. It is impossible to say

any one factor is the cause or that the same factors are the cause in any two depressions. When analyzing some of the suggested causes, remember that on this subject much has been written by economists and there is still much disagreement among them as to the causes of, and remedies for, depressions.

One of the theories of the causes of cycles is the *sunspot theory*, which should not perhaps be taken too seriously. This originated with Professor Jevons who also worked out the diminishing utility theory. He held that since the cycles seemed to recur about every ten years, this might have some association with the sunspots that bring about climatic changes on the earth and, as a result, affect the crops. This theory does not seem to have much weight since statistical studies do not show that sunspots and depressions are always coincidental.

Period of Decline

A *self-generating theory* has been suggested by a number of economists. This theory holds that each cycle grows out of the cycle that preceded it and that, within each cycle, each one of the four stages generates the stage that follows. For example, forces are moving in such a way in the period of prosperity that they will generate the following period of decline; that period in turn has, within its forces, elements that will bring on a depression; and that in turn creates within itself the period of recovery. This cycle having completed its course, it begins generation of a new cycle. This theory rests on the generally accepted position that any phenomenon in society is the result of conditions that preceded it. This is not peculiar to business cycles alone. Of most importance to the economist is the study of those conditions that work together within the stages of a cycle to produce the next stage. This is still more or less a problem for the economists, requiring much further statistical study. As to methods of reasoning, the theory has nothing distinctly new in it; it merely applies the evolutionary theory to business cycles.

Still another theory is called the *overproduction theory*. Briefly stated, this means that the businessman finds himself faced with a

falling demand for his commodity; consumption is dropping. He has had a prosperous period, expanding his plants and marketing large quantities of his commodity. Sometimes suddenly and sometimes slowly (depending somewhat on the type of goods) he meets greater and greater difficulties in marketing his goods. Other producers are having the same experience. It is not that consumers have been getting more than they can consume, for even in the period of prosperity many wants are not satisfied for all people. But the purchasing power of the consumers has begun to fall off due to the beginning of a falling off in employment and hence in wages. Into this theory enters the element of profit. The defenders of the theory do not claim that more is produced than the country needs or wants, but that it is impossible for the businessman to produce his commodity and make a profit.

Two further theories may be mentioned but not expanded, first the *psychological theory* having to do with speculation, and another theory laying the responsibility largely on the *handling of bank credit.*

In summary of this topic it can be safely said that in all of these theories there is a little truth. Elements from each may enter into the answer of the question as to what causes business cycles. The considerable disagreement among economists and the large amount of investigating that should be done, especially statistical, may delay a complete answer for some time.

D. Suggested Remedies for Business Cycles. *1. Regulation of Industry.* The means proposed for avoiding depressions are almost as numerous as the causes suggested. One is the regulation of private industry. It might be worked out to bring about a co-operation of private industry and the government. By a careful study of the probable demands it might be possible to forecast what the amount of production should be and thus avoid producing more than the market can take. If, also, when there are indications that demand for goods is beginning to fall off, showing that the purchasing power of the consumers is falling off, the government were to plan on a certain amount of really necessary public works, this would be a means of increasing the buying power of consumers through the wages they receive on these public works.

2. Regulating Credit. A further suggestion is to regulate credit and speculation. Credit secured for speculating, especially in stocks and bonds in Wall Street can be one of the influences in producing depressions. By the Banking Act of 1935, the Board of Governors was given the power to regulate to a considerable extent the expansion of credit. The Board can also prevent a stock exchange boom by increasing the amount of cash that must be put up as *margin.* If an investor wishes to speculate on the exchange it may happen that he does not have money enough to buy outright the amount of securities he wishes to buy. He may furnish say 40 per cent in cash, and the broker with whom he deals will borrow the rest for him. This is called *buying on margin.* The fraction of the price of his securities on which the customer trades is known as *margin.*

The Securities Exchange Act of 1934 is another measure passed for the purpose of preventing overspeculation and price manipulation on the securities market. The Securities Exchange Commission was formed to enforce the Securities Act of 1933, which requires that a corporation issuing securities must state the truth about new securities, and also to enforce the Securities Exchange Act of 1934. The situation in 1929 is an example of such excessive speculation when money poured into Wall Street and ran up the prices of securities far beyond their earning power. A break had to come, and the seeds of the long depression which followed were partly sown at this time.

Besides using public works as a means of increasing purchasing power, an effort is being made in another direction to increase purchases. Heretofore the farmer has not been considered an especially good credit risk. Now an effort is being made through the Farm Security Administration to enable the farmers to become better consumers by means of small loans, adequately secured, made to farm families.

E. Extent of Business Cycles. Throughout this discussion the subject has been treated entirely from the point of view of our own country. However, do not get the idea that the business cycle occurs only in the United States; such cycles are found throughout the world. Neither can it be claimed that any two business cycles are brought into existence by identically the same causes. Moreover, as

to the length of the depressions, there is also great diversity. The depression in the United States during 1873–79 was of five and one-half years' duration. The average length of the thirteen full cycles that have occurred in the United States between 1885 and 1927 is about 39 months or approximately three years, according to Professor Wesley C. Mitchell.[1]

John A. Hobson[2] in connection with his *savings theory* presents an interesting view of the cause of the business cycle. He believes the cycle the result of inequalities of income. Those with especially large incomes cannot expand their expenditures fast enough, and their savings accumulate to large proportions. The savings can find opportunity for investment only in expanding plants. Such expansion will result in still larger production of goods; eventually more goods are produced than can be marketed, prices fall and the cycle proceeds on its round.

We may take two countries as divergent in industrial development as Argentine and Sweden and find that some of the influences active in one are active in the other in developing cycles, but in no case is a cycle induced by any one single cause. One writer may lay more emphasis on one set of facts than another does, but few will hold that there is only one cause.

That this subject is considered world-wide in its significance is borne out by the fact that in 1930 the Assembly of the League of Nations passed a resolution by which it was decided that a work should be published to co-ordinate all the research that has been done on the subject of business cycles, beginning with an analysis of the theories. This work was well under way before the beginning of World War II.

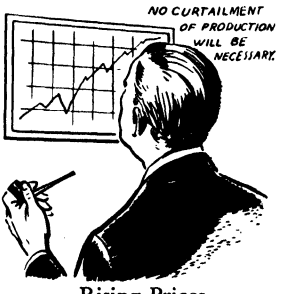
F. Influence of Price Level. The significance of price level lies in its influence as a barometer of how business is moving. Rising prices indicate a movement toward a prosperous period and an evident demand for goods. This gives the producer some encouragement to go forward with production. The falling of prices leads to the opposite conclusion on the part of the producer. In other words,

[1]Mitchell, Wesley C., *Business Cycles*, National Bureau of Economic Research, 1927.

[2]Hobson, John A., *Poverty in Plenty*, Macmillan, 1931.

the price level may be considered as a warning to slow up production or an incentive to expand.

The price level may be influenced by various factors. In a so-called *purely competitive market*, competition is assumed to be the economic factor that sets price, competition among buyers acting to raise price, and competition among sellers acting to lower price. Under pure monopoly the monopolist can set the price at the point where his monopoly profits will be the highest and will be restrained only by the possibility of government regulation or by the fear that buyers will turn to substitutes. In monopolistic competition, if there are many firms with branded articles serving the same want, the price will more nearly follow the competitive method of price setting; but if there are only a few firms, they may make their price decisions more after the pattern of monopoly. Consumer income is made up of *wages* that are paid for the services of labor; *rent* that is paid for the services of land; and *interest* that is paid for the services of capital; and the sum of the amounts paid for these services is the amount that the consumers have to spend, or their purchasing power. Therefore, to consumers the price of commodities will be of great importance because such prices determine their standard of living. Note that this is not emphasizing price level from the point of view of its effect on profits, but emphasizes rather the importance of price movements to the consumers because of the effect of prices on living standards at all levels.



Rising Prices

KEY POINTS IN UNIT 2

1. A *business cycle* is a succession of business conditions and may be divided loosely into four phases: prosperity, decline or crisis, depression, and recovery.

2. The cause of these recurring crises in business activity has never been explained satisfactorily because it is impossible to say any one factor is the cause, or that the same factors are the cause of any two depressions.

3. Among the various theories which have been advanced as possible causes of the business cycle are: (1) the sunspot theory of Jevons

and his followers; (2) the self-generating theory held by many economists; (3) the overproduction theory; (4) the psychological theory connected with speculation; and (5) the theory of handling bank credit.

4. There is probably some element of truth in each of these theories. However, the question is still debatable and probably will not be answered for some time to come, since all the theories so far advanced contain fallacies.

5. Two suggested remedies for business depressions are regulation of industry by Government control and regulation of credit and speculation.

6. The Securities Exchange Act of 1934 was passed for the purpose of preventing overspeculation and price manipulation on the securities market.

7. Depressions are not confined to the United States. The depression beginning in 1929 was practically world-wide in extent, and was especially severe in those countries which were highly organized industrially.

8. Depressions vary in length from three to ten years or more. For the thirteen complete business cycles between 1885 and 1927 in the United States, the average length was approximately three years.

9. A changing price level is a warning signal either to expand business activities or to slow them down. In a purely competitive market, competition is assumed to be the economic factor which determines prices through the operation of the law of supply and demand.

10. In a purely monopolistic market, the monopolist sets the price where his monopoly profits will be the highest possible. He can be restrained by Government control or by consumers turning to substitutes for his products.

QUIZ QUESTIONS ON CHAPTER VII

1. *Define the term* business cycle.
2. *Name three distinct phases of a business cycle.*
3. *Are depressions new in the history of commercial activity?*
4. *Name four theories which have been advanced regarding causes of depressions.*
5. *Are depressions confined to the United States?*
6. *Name two remedies which have been suggested for business depressions.*
7. *Explain the self-generating theory as a cause of business depressions.*
8. *What is the fallacy in the overproduction theory?*
9. *Why are producers unable to sell their goods at a profit during a depression?*
10. *What legislative act was passed in 1934 to regulate overspeculation and price manipulation?*
11. *In a purely monopolistic market how would prices be determined?*
12. *How may a monopolist be restrained from setting prices higher than the economic value of the goods justifies?*

Chapter VIII

NATIONAL INCOME

OBJECTIVE: The national income, what it is, how estimated, and its importance to the country's welfare and existence.

PREVIEW: *National income may be defined as all the commodities and services produced in a country within a given time; for example, one year; or the national income may be considered as the final result, or end product, of all the productive activities of a nation at the close of a given period. The facts of a business cycle stem from a study of the national income. There is a great deal of difficulty involved in determining the national income exactly, because of the difference of opinion among economists as to what should be included when estimating the national income and what should be excluded. For example, some would include rent on homes occupied by the owner, others exclude this item. The great problem is to decide what to include and how to evaluate the items.*

However, there are figures available from reliable sources furnishing estimates which vary only slightly, due to difference in methods used. A few of these sources giving the national income for the fiscal year 1935–1936 follow:

United States Department of Commerce . . .	*$59,584,000,000*
National Resources Committee	*59,983,000,000*
National Industrial Conference Board	*59,500,000,000*

In any study of economics, the national income is important since there is no other way in which we can determine the relative importance of the various factors of production—land, labor, capital, and enterpriser—and how much is due the enterpriser for a year of effort; that is, for his part in the productive process.

In abnormal times the national income fluctuates radically. For example, during the boom period of 1929, the national income was estimated at $83,032,000,000 while at the depth of the depression in 1932, the national income was estimated at $39,365,000,000. At this point industry had hit the lowest depths in the depression, and recovery then began. The important item for emphasis and consideration in connection with this portion of our study is the amazing fact that the income of a country capable of producing

in one year the equivalent of $83,000,000,000, should in the course of three years, fall off to $39,000,000,000. This shows a serious entanglement of the economic and productive processes of the nation. The factories with their machinery, the farms and farmers, and the mines were still in existence, but demand for consumer's goods had fallen off. Consequently, the factories were idle, the mines were not worked, and the farmers produced little more than enough for their own needs.

This chapter deals with the national income, which is the total value of all the commodities and services produced in a country within a given period, and the importance of this productive activity to the nation's welfare and existence.

Unit 1. Importance of National Income

A. Meaning of National Income.
B. Additional Sources of Information.
C. Methods of Estimating National Income.
D. Fluctuations of National Income.
E. Production and Ability to Produce.
F. Relation of National Income to Distribution.

A. Meaning of National Income. National income may be defined as the value of all the commodities and services produced in a country within a given time; for example, a year. Or, the national income may be considered as the final result, or end product, of all the productive activities of a nation at the close of a given period. There is a great deal of difficulty in determining exactly what the national income is, because of the difference of opinion among economists as to what is to be included and what excluded.

There are certain principal sources to which one can turn for results that are based on careful study and research. First, in order to show how slight differences may arise in the results of these various studies, let us analyze the methods and results of the United States Department of Commerce. For the year June of 1935 to June of 1936 the national income was estimated as $59,584,000,000. The Department of Commerce does not include the imputed rental value of owned houses if they are occupied by their owners.

The second source of information bearing on the national income are studies made by the National Resources Committee.

These figures, published in *Consumers' Incomes in the United States*, are, for the same period, $59,983,000,000. However, this amount included the rental on houses occupied by their owners as a part of income, as well as several other smaller items such as earnings from taking boarders and lodgers and from work at odd jobs. In dealing with figures reaching into billions of dollars, the difference between these two numbers is so small as to be negligible, especially when the slight differences in items included are taken into account.

There is still a third source from which estimates for the national income can be secured. The figures of the National Industrial Conference Board for the same period show $59,500,000,000, which is almost identical with the figures arrived at by the Department of Commerce. When certain items are adjusted in this case as in the comparison of the Department of Commerce and the report of the National Resources Committee, it is found that the difference between the figures by the Conference Board and by the Resources Committee is very small. The three estimates for the year June 1935 to June 1936 stand as follows:

United States Department of Commerce	$59,584,000,000
National Resources Committee	59,983,000,000
National Industrial Conference Board	59,500,000,000

B. Additional Sources of Information. There are, also, two other sources from which to secure information bearing on the national income. These sources illustrate the fluctuations of the national income especially well. They are the researches carried on by the National Bureau of Economic Research and the Brookings Institution. Taking for example four separate years, examine the figures for these two research bodies and see how they compare.

National Bureau of Economic Research

1929	1930	1931	1932
$83,032,000,000	$70,345,000,000	$54,643,000,000	$39,365,000,000

Brookings Institution

1929	1930	1931	1932
$81,940,000,000	$70,119,000,000	$55,779,000,000	$41,605,000,000

Again making comparisons for the year June 1935 to June 1936, it is evident that the differences in the estimates are relatively small when dealing with billions of dollars, and that for three of the years, 1930, 1931, and 1932, the smallness of the income reflects the depression period through which the country was passing.

C. Methods of Estimating National Income. It is apparent that in determining the national income the statistical method is most important. First, all the pairs of shoes, hats, bushels of wheat, dozens of eggs, engines, and all the other various commodities that have been produced in the year must be determined. Then all of the services, the number of hair cuts, shampoos, and other forms of services must be included. The great problem is to decide what to include and how to evaluate the items.

Value of Housework

All of the items must be reduced to the common denominator of their monetary value so that the total can be in monetary units. Of all statistical undertakings, finding the money value of all items is perhaps the one of greatest magnitude. Along with finding the monetary units goes the difficulty of deciding just what items can be included. For example: a large number of items are not measured in money value; in other words, they do not enter into the monetary flow. These include such items as room and board provided for farm workers or any other workers whose upkeep is partially provided by their employer; another instance is rent on the farm paid in farm products instead of in terms of money; and the services performed by housewives who receive board, room, and clothes, but the value of whose services it is difficult to estimate. A maid doing housework may be receiving room, board, and ten dollars per week. At least her wages can be counted in as a part of the services that enter into the national income, but if a mother in the home performs the same services it is difficult to include accurately the value of her services in the national income.

We have seen that the national income is the final result of the entire productive process that is carried on by a nation within a

given period of time. There are economists who point out that the national income may be considered, not only from the point of view of the total amount of commodities and services produced, but from at least two other points of view: the amount received by the factors of production; the amount that is consumed. By all three of these methods, however, results are in terms of money.[1] The figures given from the Department of Commerce deal with production of commodities and services, while those compiled by the National Resources Committee deal with consumer incomes. However, the total amounts vary slightly, due to the inclusion of items in different ways. The differences cannot be great since all are based on the same facts. It is impossible to divide among consumers more than has been produced, and consumers cannot consume more than they receive.

It is evident, then, that there are three points of view from which national income may be approached: (1) the total of the services and commodities produced by a nation in a given period of time; (2) defining national income as the total amount received by the factors of production; (3) the total amount consumed. All of these factors are so closely related that to understand national income it is necessary to become familiar with all three of these methods.

D. Fluctuations of National Income. Another problem is that of the fluctuations of the national income. During a period of prosperity the assumption can be made, and statistics bear it out, that the national income will be large; business is active and the rate of employment is high, while commodities and services produced are large in amount. The estimates shown for the years 1929 through 1932 emphasize the fluctuations of the national income. During a period of depression, production falls off and as a result the national income decreases. Statistics of the National Bureau of Economic Research show that the national income for the year 1929 was $83,032,000,000, a prosperous period; in 1930 it had fallen to $70,345,000,000, the country was moving into the depression; in 1931 it had fallen to $54,643,000,000; and in 1932 to $39,365,000,000, industry having descended into the depths of the depression.

[1] *Encyclopedia of Social Science*, p. 207, Vol. XI, Simon Kuznets.

The facts of a business cycle are based upon the national income. This fluctuation of the national income accounts for the fact that during any one of the stages of a business cycle the amount that can go to the factors of production, to be used either as purchasing power or saved, is determined by what the total national income has been. During the depression beginning in 1929, one of the first effects was the closing down of industry because of the falling off in the demand for goods. Then followed the falling off in employment since production was falling off, the resulting national income was decreasing and the amount that could go to labor was decreasing. Since industry was not producing adequately, the interest on bonds and the dividends on stocks began to decrease. When dividends could not be paid, this further lowered purchasing power. Finally people were unable to pay their rent and this loss of another item of income also made itself felt by lowering the consuming power of the nation.

E. Production and Ability to Produce. A further problem in connection with the national income is the wide difference which may exist between the amount a nation produces and its ability to produce. This is illustrated by the fact that in 1929 the country could produce over $83,000,000,000 and in 1932 it produced only $39,000,000,000. The factories with their machinery and the farms and mines were still in existence, but since the demand for the produce had fallen off, the factories could not operate, the mines were not worked, and many farmers ceased to raise crops larger than their personal needs required.

F. Relation of National Income to Distribution. It is important for us to devote considerable time to the discussion of national income. There is no other way in which we can determine how much the factors of production—land, labor, capital, and the enterpriser—can receive for a given period of effort: that is, for their part in the productive process. Our study of *distribution*, which follows in another chapter, deals with the division of the national income among the various factors of production. In order to handle intelligently and solve the problems of distribution, it is necessary to make a careful study of the national income, how it originates, what it includes, why it fluctuates from year to year, and its extent.

According to figures given out by the United States Department of Commerce early in 1944, the per capita income in the nation had more than doubled during the period from 1935 to 1943. These figures gave the per capita income as $520 for the period from 1935 to 1939 and $852 for 1942; while in 1943 the per capita income reached approximately $1,050. More than one third of the nation's families had incomes in excess of $3,000 during 1943, as compared with only 10 per cent in that category from 1935 to 1939.

KEY POINTS IN UNIT 1

1. *National income* may be defined as the total of the commodities and services produced by a nation in a given period of time, such as one year. We may also think of *national income* as the total amount received by the factors of production during a given period, or as the total amount consumed.

2. There is no complete record kept of all details of production and services which should be included in an exact estimate of the national income. Estimates are based upon census reports, Federal income tax statistics, and other data compiled by statisticians.

3. Reliable sources of information are reports of the United States Department of Commerce, National Resources Committee, and National Industrial Conference Board.

4. The great problem in estimating national income is to determine what to include and what value to place upon the various items, such as shoes, hats, bushels of wheat, dozens of eggs, and other innumerable commodities.

5. Whether we consider the national income from the viewpoint of those who maintain that the amount consumed is the correct basis of estimating income or from the total production point of view does not make any material difference. It is impossible to divide among consumers more than has been produced.

6. National income fluctuates radically during abnormal times. In the boom period of 1929, our national income was estimated at approximately $83,000,000,000, while in the depths of the depression in 1932, it was estimated at only $39,000,000,000.

7. This fluctuation then accounts for the fact that during any one of the stages or phases of a business cycle, the amount that can go to the factors of production—land, labor, capital, and enterpriser—is determined by the total national income for a given period of time.

8. Since depressions began with the organization of industry due to the introduction of the factory system, there seems to be some relation between the two. That a nation capable of producing more than enough

for its needs in a normal year, should be reduced to panic and distressing economic conditions within a period of three years is appalling.

QUIZ QUESTIONS ON CHAPTER VIII

1. *How is national income determined?*
2. *Do economists agree on what should be included in the national income?*
3. *Why is it difficult to estimate the value of services, for example, that of a home where a maid is employed and a home where the housewife performs all services without a maid?*
4. *Name three reliable sources for national income figures.*
5. *What was our estimated national income in 1929? In 1932?*
6. *Is there any relation between the highly organized factory system and depressions? Give reasons for your answer.*
7. *Why is our national income important to us as citizens?*
8. *Name three methods used by economists in calculating the national income.*

Chapter IX

DISTRIBUTION—HOW THE NATIONAL INCOME IS DIVIDED AMONG THE FACTORS OF PRODUCTION

OBJECTIVE: Distribution of the national income among the factors of production—land, labor, capital, and enterpriser—presents a problem in values.

PREVIEW: "*Distribution*" *as used by economists has two different meanings. In one sense it means the moving of raw materials from one place to another. In this chapter distribution deals with the division of the national income among the factors of production, including land, labor, capital, and enterpriser. It is assumed that a market exists for each factor; this involves the principle of supply and demand.*

When an enterpriser decides to produce consumer's goods, it is necessary for him to buy or rent land on which to carry on his productive processes. He must go into the labor market and buy the services of labor to operate his production plant. In case he does not have money to finance his new enterprise, he will go into the money market and secure money in the form of a loan from a bank, paying interest for the services of the money.

The consumer's demand for commodities is different from the demand of the producer. The consumer's demand is direct. He demands commodities to satisfy a desire. The producer's demands are indirect. He demands services of land, labor, and capital in order to produce commodities to satisfy the demand of the consumer. However, there is a close relationship between the demand of the consumer and the supply the producer will provide through the services of the factors of production. It is only when these factors are combined to carry on a productive process, for example producing shoes, that the direct demands of the consumers are satisfied. The demand of the enterpriser is for indirect agents. He controls labor services, capital services, and land services. Out of this arise problems in values and prices. The price paid to each factor of production is determined by the value of the marginal pro-

ductivity of that particular factor. This chapter deals with the numerous complications involved in solving the problem of determining values and dividing the national income among the various factors of production.

Unit 1. Distribution Defined

A. Distribution.
   1. Factors of Production.
   2. Problem in Value.

A. Distribution. Unfortunately, in economics the word *distribution* represents two entirely different processes. In an earlier chapter distribution was discussed as the process of transferring goods from the place where the raw material originated to the place where it was to be sold—either to be used in the manufacture of goods or (as often with wheat) to be placed in storage. Distribution also included the advertising of the finished goods as they pass through the hands of wholesalers and retailers, and transportation to the actual or final consumer. Except that it is a part of the whole economic process, all of this has nothing to do with the word *distribution* as used in the following discussion.

1. Factors of Production. In this chapter *distribution* is considered to mean the division of the national dividend, or national income, among the factors of production—land, labor, capital, and the entrepreneur or enterpriser. The respective share paid to each factor is in the form of rent, wages, interest, and an enterpriser's wage. The enterpriser may also receive a profit; at least this position is held by some economists. The share that each factor receives is theoretically based on the amount added to the total output by the services of the last unit of the factor that is used in that particular productive process. Put in another way it means that the price any factor will be paid is determined by the productivity of the last unit of the factor that is used which can produce just enough to pay for itself. According to this school of economists, called the *marginal productivity school*, each factor would, to put it in still another way, receive an income determined by its marginal productivity. Both

the supply and demand for the productive agent must be taken into consideration.

2. Problem in Value. Distribution is a problem in value. Rent, wages, and interest are prices paid for services. Therefore, theoretically it is assumed that a market exists for these services and that the supply and demand of the factors are important in determining the

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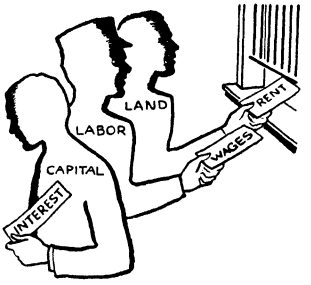


Distribution

price paid. However, it must not be forgotten that while these may be the theoretical prices that might be paid, the *real price* usually is set by bargaining and is a *contractual price*, although it will be somewhere near the theoretical price. These contractual prices paid for the factors of production will depend largely on the bargaining strength of the sellers of the services and those who wish to buy the services.

KEY POINTS IN UNIT 1

1. In economics, unfortunately, the word *distribution* has two entirely different meanings. In this chapter *distribution* means the division of national income among the factors of production—land, labor, capital, and enterpriser.

2. Each of the various factors of production receives a portion of the income derived from the country's productive processes. These factors are paid in the form of rent, wages, interest, and profits to the enterpriser.

3. The share each of the factors of production receives is based theoretically upon the amount added to the total output by the services of the last unit of the factor that is used in that particular productive process.

4. The price that any factor will be paid is determined by the productivity of the last unit of this factor that is used which can produce just enough to pay for itself.

5. These theories are advanced by a school of economists known as the *marginal productivity school.* Still another way of expressing the same theory is that each factor should receive an income determined by that factor's marginal productivity.

6. Distribution presents a problem in value because rent, wages, and interest are prices paid for services. Therefore, it is assumed that a market exists for these services and that the supply and demand of the factors are important in determining the price paid to each factor.

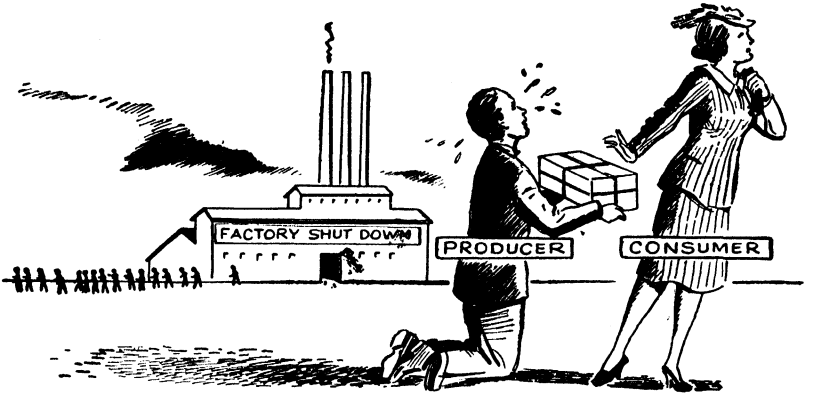
Unit 2. Producer's Demand for Services

In an earlier chapter when defining the factors of production, it was pointed out that if an enterpriser decides to start a business it is necessary for him to go into the labor market and buy the services of labor. He no longer buys the workman, as was done in slavery days, but he buys the services that a man can render in a given time. He must go into the money market, if he does not have money enough of his own to start the business. Probably he will secure this money in the form of a loan from the bank and pay interest for the services of the money; he may also buy the services of land; this he may buy outright, or may lease or rent.

The consumer's demand for commodities and services has been emphasized in earlier chapters. Some consideration must be given, also, to the producer's demand for the services which he must control in order to start a production plant. It is necessary to keep in mind that there is a close relationship between the demand of consumers for commodities and the demand of enterprisers for services of factors used in the production of those commodities. This has been discussed in connection with the study of the business cycle.

The producer's demand is sometimes called an *indirect* or *derived demand.* It is a demand for services that will aid in producing commodities that satisfy the desires of consumers, their demands being known as *direct demands.* The indirect demands of the enterpriser to control labor services, capital services, and land services do

not in themselves satisfy any desire. It is only when they are combined in carrying on a productive process (for example, producing shoes) that the direct demands of the consumers are satisfied through the results of the activities of the productive factors.



Consumer Desires Determine Goods on Market

KEY POINTS IN UNIT 2

1. Producers' demands for services which can be used in producing consumers' goods are sometimes called *indirect demands*. Consumers' demands for commodities to satisfy desires are different from the producers' demands for services; the consumers' demands are called *direct demands*.

2. When an enterpriser decides to start production of consumer's goods, he must either buy or rent land for his production plant. He must go into the labor market and buy the services of labor to work for him. If he does not have money enough of his own to finance the enterprise, he must go into the money market where he may secure a loan from a bank and pay interest for the use of the money.

3. A close relationship exists between the *direct demand* of consumers for commodities and the *indirect demand* of the enterpriser for services of the various factors or agents used in the production of these commodities.

Unit 3. Paying for the Services of Labor

A. Supply of Labor:
   1. Labor in the Market.
   2. The Birth Rate.
   3. Immigration.
   4. Longer Hours.
   5. Speeding Up Machinery.

B. Demand for Labor.

C. Theories of Wages:
   1. Subsistence Wage.
   2. Wage-Fund Theory.
   3. Marginal Productivity Theory.
   4. Contractual Wages.
   5. Marginal Productivity and Contractual Wages.
   6. Labor Settlements.

A. Supply of Labor. Labor is an important factor in any discussion dealing with the distribution of the national income. Any labor market (for example, the farm labor market) can be diagramed to show supply and demand curves for labor; moreover, in considering the price of labor, this supply and demand for labor must be considered just as the supply and demand for a product must be considered by the enterpriser who produces it. For instance, when considering the price of shoes it is necessary to know how many shoes there are in the market, whether the supply is large or small, and what the production of the shoes costs the enterpriser. Then the demand for shoes must be taken into account, whether there are many people in the market who are anxious to secure shoes and who have the money to buy them. When the foregoing factors are determined, it is possible to locate a point where the amount of shoes that come into the market is equal to the amount that the buyers wish to take from the market and a price can be set. In this same way labor is considered.

1. Labor in the Market. When dealing with theoretical wages, consideration is given first to the supply of labor offered in the market and the demand for labor on the part of enterprisers. The

welfare of any nation depends on three great resources: (1) land, including mines, fisheries, and forests; (2) resources consisting of all that man, working with nature, has brought into existence in the way of machines, productive plants, and capital; (3) resources which are found within man himself—all his skills and techniques.

In discussing human beings as resources and as a factor of production, there are certain characteristics peculiar to man that must be considered. The services he will sell are embodied in himself. If he does not sell his labor power today he cannot sell this same labor power tomorrow. In other words, if he does not work today he has "lost" a day's wages. If he fails to sell his labor power at all, he will be unable to live unless aided by other individuals or some public welfare service.

2. The Birth Rate. As to the sources of the supply of labor, the first factor to consider is the birth rate and its relation to the death rate. The number of human beings existing in a country is one angle of labor supply. Recent estimates on this subject show that if the birth rate and death rate in the United States remain medium, the population will continue to grow for fifty years, but at a constantly decreasing rate, and by 1980 it will reach 153,000,000. Other estimates, based on some change in birth and death rates and immigration, would place our highest population at 138,000,000 in 1955 with a decrease of 10,000,000 during the next quarter of a century.

In population our country seems to be approaching a stabilized condition, or equilibrium. But even if that is true, there are changes going on within the population as a whole that affect labor as an economic factor. Some groups, as the group of persons of older years, are increasing in the percentage they form of the population. This raises questions as to the welfare of people of middle years and their possible usefulness to society when their occupation in gainful labor frequently is considered as ending at the age of forty-five. Also, there is evidence of a gradual decrease in the proportion of children in certain sections of the population.

The greatest expansion of population in all time was probably during the nineteenth century and the first three decades of the twentieth century. The United States was probably the leader in this expansion. Not only was there a great industrial growth and

increased utilization of the resources of a richly endowed continent, but for many years these resources were extensive, free land for example, and were an invitation to the population, whether native born or immigrant.

Usually, the productive age classes are considered to lie between twenty and sixty-four. It is expected that this age group will increase in proportion of the total population from about 55 per cent where it stood in 1930 to about 63 per cent from 1950 to 1970. However, in recent years the great difficulty experienced by those over forty-five in securing employment may indicate that the age limit of those actually employed by industrial plants is falling from sixty-four closer to fifty years.

3. Immigration. Another important factor influencing population is *immigration.* American labor found it difficult to meet the competition of oriental men who were accustomed to low standards of living, and residents of the west coast secured legislation to stop such immigration. After World War I there were demands on the part of labor to set quotas on immigration from Europe. This was for the purpose of reducing the number of laborers. The problem here is identical with that of increasing the number of shoes put on the market; as the number of shoes increases, the price of shoes falls. So with an increase in the amount of labor power put on the labor market, the price of labor falls; that is, the labor receives less for its services. But birth rate, death rate, and immigration are not the only factors that affect the quantity of labor.

4. Longer Hours. An increase in the number of hours in a working day also increases the labor power used. Assume that men on an assembly line are working eight hours a day. The results of their labor are a certain number of finished cars. The hours are lengthened to ten, and the assembly line is run at exactly the same speed. Of course the number of cars produced increases proportionately. Labor power, then, can be increased if the number of hours that each man works is increased.

5. Speeding Up Machinery. Continuing the illustration of the assembly line, if the hours and men remain the same but the assembly line is speeded up so that more cars are turned out in an hour, then the labor power has been increased.

B. Demand for Labor. The primary demand for labor comes from the enterpriser, but the ultimate demand for labor comes from the consumer. If the consumer does not demand a commodity, and by *demand* is meant the desire plus ability to pay, the commodity will not be produced and no labor will be called into action. It has been found that in a period of depression unemployment increases. This is because the demand for goods is falling off, which means there is also a falling off in the demand for labor to produce goods. It is necessary to get this chain of relations clearly in mind. This bears out a previous statement that the enterpriser's demand for the factors of production with which he produces goods will fall off as the demand for his goods falls off.

Period of Prosperity

During a period of prosperity, commodities are wanted and men have purchasing power, and goods are produced to meet the demand for them; then the demand for labor also increases. The enterpriser who is a farmer will be in need of labor to harvest and thresh his grain. The steel mills may be filling war orders, and great numbers of men are required to work in these mills. The demand for labor is high, so farm and mill wages will be high.

Since distribution is a problem of value, theoretically the supply of labor and the demand for labor are important elements in determining the economic price paid for the services of labor. Examining the trend of the nation's population, it would seem that we cannot depend on an increase in our population to increase our domestic trade. However, this would be increased in the event of a higher standard of living for the major part of our population. This would mean an increase in effective consumer demand, hence it would depend on a larger distribution of income. This larger distribution of income means a larger national income due to increased production.

C. Theories of Wages. The sale of their labor for wages is the only source of income for large numbers of workers. It will be seen from the following discussions that theories of wages differ widely.

1. Subsistence Wage. This theory, sometimes called *the iron law of wages*, is based on the Malthusian doctrine that population increases geometrically and subsistence increases only arithmetically, and therefore population will always outrun food supply. Malthus wrote in the early part of the nineteenth century when the factory system was developing in England and labor was making some efforts to improve its position by getting higher wages. Malthus claimed that if labor bettered its condition by getting higher wages the birth rate would increase and competition among the increased population would pull wages back to the subsistence point; that is, the point where a worker's family would have just enough to support the parents and two children to replace the parents. This theory, therefore, really placed the responsibility for low wages on increase in population.

This theory does not take into account the fact that as the standard of living rises, the family, instead of increasing greatly in size, is likely actually to decrease. Neither does it reckon with the fact that with machinery and technological improvements industry will show an increasing productivity and for that reason population need bring no pressure on subsistence. For example, if today all the arable land were utilized and our manufacturing plants produced to capacity, the productivity of the country would be greatly increased, the national income would be larger, and if each man received a wage according to his productivity his standard of living would be raised. Families with the lowest standards of living are the ones that multiply rapidly; those with high standards of living do not.

2. Wage-Fund Theory. A second theory of wages is called the *wage-fund theory* and was formulated in its most perfect form about 1848 by John Stuart Mill. This theory holds that at any given time only a set portion of the capital funds can be used to pay the wages of labor. If more than this were paid as wages, then the return to capital would be less than enough to pay capital for its part in the productive process. According to this theory, since there is only a given amount that can go to labor, it would be best for labor to keep its numbers small so that this amount can be divided among as few as possible and thus maintain higher wages. It is evident that this theory is allied to the population theory, holding that the responsi-

bility would rest largely on the laborers who increased their numbers, and it also did not recognize the existence of increased productivity. This theory looked at wages and profit of capital as complementary; whatever was taken out of the fund resulting from production to increase labor's wages, decreased the profits of capital and *vice versa.*

3. Marginal Productivity Theory. A third theory of wages is the one most prevalent today. This is the *marginal productivity theory.* Stated briefly, it maintains that under conditions of pure competition and perfect mobility of the factors of production, labor would receive a wage equal to the amount produced by the marginal laborer (the last laborer added) who would produce just enough to meet the amount of his wage.

Suppose a shoe manufacturer had 10 men engaged in production, and in a day they produced shoes that sold for a total of $40. Assume that one man was added to the group and the shoes produced in a day sold for $42. According to the foregoing theory this would mean that the marginal productivity of the marginal or last man added was the difference between the total production before he was added, $40, and the total after he was added, $42, or $2. Or, expressed in a different form, the marginal productivity of the last man was $2, therefore each of the 11 men should receive a wage of $2 per day. In earlier discussions it has been pointed out that *marginal output* is secured by subtracting one total output from the following total output. See units on "Diminishing Returns."

This theory is based on an assumption which economists recognize as impractical so far as all labor is concerned. There is not perfect competition among laborers because men possess different skills and these skills are required in different jobs. The plumber cannot compete with the bank clerk; the ditch digger cannot compete with the steam fitter. On the whole, labor can compete only in small groups, groups in which men must have the same skills. An accountant does not compete with a department store salesman, but with other accountants; neither does a seamstress compete with a stenographer, but with other seamstresses. It could be assumed that the last person added to a skilled group would by his productivity determine the wages of the others in that group, but his productivity

would have no appreciable effect, except indirectly, on the wages of a group with entirely different skills. However, this theory is useful in showing a normal wage above or below which the contractual wage will swing.

4. Contractual Wages. Contractual wages are wages actually determined in industry, whether it be manufacturing, mining, or agriculture. Contractual wages are set through a process of bargaining between the buyer of labor, the enterpriser, and the laborer who sells his labor services. What the wage will be will depend, partially at least, on the relative bargaining strength of the two bargainers. If there are only a few enterprisers who want certain types of labor and there are many men who can do only that type of work, then the employer, or enterpriser, will be the stronger in making the bargain since there are many laborers competing for the few jobs. On the other hand, if few workmen having the same particular skill are required and many employers are wanting to hire men, the wages may be high because the workers have the advantage for bargaining.

Another element may enter into this setting of a contractual wage. When, for example, large industries like the United States Steel Corporation grew up, a large company had the control of hiring large numbers of men. Under the circumstances the employers could set the wages, for their bargaining position was the stronger, as there were usually large numbers of men seeking work. To offset the bargaining power of the employers, the working men formed unions and refused to make a wage bargain except as it applied to all the men of that particular skill in the industry. These were called *craft unions* as each union included only men who worked at one trade. Usually the men who did common manual labor that required no particular skill had no union.

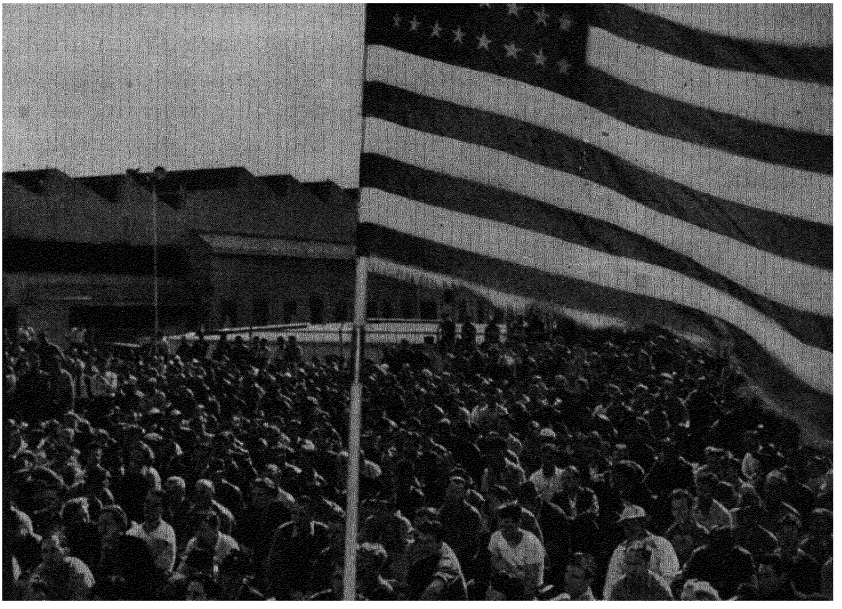
Later, what are known as the *industrial unions* were organized. These include all the men in a given industry and wage contracts are made on the basis of including all the workers in that industry. The courts have recognized the right of working men to organize into unions in order to even up the bargaining power of employees and employers. This raises the question: How high can wages go, how low can they fall, and how are they affected by marginal productivity?

Theoretically, wages are set by the amount produced by the marginal worker. This means that the last man hired receives a wage equal to the amount that he adds to the total output. If he adds $4 to the total value of the product, he should receive $4 as a wage, and all other workers doing similar work should receive the same. However, this is theoretical, and wages are seldom set at just this particular point; besides, it is difficult to determine that particular point.

5. Marginal Productivity and Contractual Wages. Marginal productivity is important in setting the contractual wage. The theory of marginal productivity used in connection with the payment for the services of all the factors of production, land and capital as well as labor, was arrived at by observing that the amount the laborer added to the output should determine the wages he received.

In a competitive capitalistic system the employer cannot, over a long period of time, pay workmen more than they add to the product, since this would mean running the industry at a deficit and paying more for a service than that service contributes to the out-

Union Meeting During Lunch Hour *Underwood & Under*



put. Neither can a laborer afford to accept, for a long time, a wage below his marginal productivity. For him it would mean accepting a lower standard of living while adding to the profits of the industry.

This process is illustrated by the bargaining of the bituminous coal miners. Every year or two the representatives of the mine operators and the representatives of the coal miners' union meet to draw up their wage contract. The miners bring in budgets to show what their wages must be in order to maintain a fair standard of living at the current price level. The operator also presents accounts to show current operating costs. Eventually the two groups of representatives agree on wage rates for the different types of workers in the mine. This is an industrial union including all workers. The wage is contractual and may not differ greatly from the theoretical marginal productivity of the miners in the different groups; however, relative bargaining strength figures prominently in the decisions. Marginal output, then, has importance as a point from which the actual wage will not diverge too greatly during the process of bargaining. This method of settling wages between unions and employers is known as *collective bargaining*.

6. Labor Settlements. Within the whole field of bargaining in economic transactions probably the most bitter and hard-fought disputes occur during the process of settling wages. With greater understanding of the situation on both sides, collective bargaining is coming gradually to prevail in most of the larger industries. Industrial warfare is giving place to conference and intelligent negotiation. There are instances where, anticipating a demand for higher wages on the part of employees, employers have raised wages to meet a rising price level. However, this rarely happens. On the other hand, workmen have refrained from striking for higher wages when permitted to see the actual cost accounting situation of an industry in which they are employed.

KEY POINTS IN UNIT 3

1. Labor and wages are two important topics in any discussion dealing with the distribution of the national income.
2. When considering theoretical wages, attention must first be given to the supply of labor offered in the labor market and the demand of the enterpriser for the services of labor.

3. Closely related to the supply of labor are two prominent subjects, *immigration* and the *birth rate.*

4. Other debated subjects are: the effect of longer working hours, speeding up of machinery, and the subsistence wage.

5. Any theory regarding the solution of the labor and wage problem presents numerous difficulties concerning wage funds, contractual wages, and marginal productivity.

6. The wage-fund theory considers wages and the profits of capital as complementary; that is, whatever is taken out of the fund resulting from production to increase labor's wages will decrease the profits of capital and *vice versa.*

7. *Contractual wages* are set through a process of bargaining between the buyer of labor's services, that is the enterpriser, and the laborer who sells his services.

8. The courts have recognized the right of working men to organize into unions in order to equalize the bargaining power of employees and employers.

9. Theoretical wages are set by the amount produced by the marginal worker.

10. The marginal output, then, has importance as a point from which the actual wage will not diverge too greatly. This means that the last man hired receives a wage equal to the amount that he adds to the total output.

Unit 4. Interest—Price Paid for Services of Capital

A. Problem in Value:
   1. Supply of Capital.
   2. Demand for Capital.
   3. How Rate of Interest Is Determined.

A. Problem in Value. As pointed out in the beginning of this chapter, distribution as a problem in value involves the question of supply and demand and deals with services instead of commodities. The services are those of labor, capital, and land. This unit deals with setting a price for these services. Determining values and setting prices on services creates a market phenomenon exactly like that of a market for hats or eggs.

1. Supply of Capital. The supply of labor may be affected by a change in birth rate, death rate, immigration, by increasing the hours of work, or by speeding up machinery. Capital consists of concrete material goods produced by human effort and used for further production. The word *capital* has two applications: *capital goods* and *capital value.* Capital goods are the machines, industrial plants, and railroads. Capital value includes everything listed under capital goods expressed in terms of monetary units. When estimating his capital a man does not list all the trucks and machines he owns; after he has given a value to each item, he reduces these through the use of the common denominator, money, to a single figure.

Assume a fisherman has worked hard and built himself a fishing boat. He has a large catch of fish and instead of consuming all the fish he sells a part and saves the money. He has produced and saved. Another fisherman, who has not worked so hard to build a boat nor saved any money, asks for the loan of the first fisherman's money. This money is the first fisherman's capital. He not only worked to produce it, but he saved it. Capital then was produced and saved. This illustrates the source of the supply of capital.

A man living in the South Sea Islands, performing no productive work but depending on nature to supply all his wants, saves nothing. Such a man creates no capital. Another man working in a factory eight hours a day receives $20 per week in wages. This man has a family. He does productive labor on his job but can save nothing. He creates no capital. Another productive worker earning $3,000 per year finds he can save $500 a year. This man creates capital since he both produces and saves.

Some people save because they prefer not to use all their money at one time; they wish to save some of it to invest, or to lend to someone else to use in a productive process. These people who save expect in the future to receive not only the amount they have invested or loaned, but in addition, a return on their investment—an amount that pays for the service that their loan has rendered to the borrower. Since this procedure compels a person to do without the immediate pleasure of the use of his money, this saving is sometimes spoken of as *abstinence*, or the *cost of saving*, meaning that to deprive

himself of something today, in order to have more in the future, may be considered a cost to the saver. It should be noted that, when money is loaned, the rate of interest is used to find a certain percentage of the loan, which is the interest and must be expressed in money. In dealing with capital value, the interest based on the capital value must also be expressed in monetary units.

2. Demand for Capital. Some borrowing may take place for consumption purposes, as in case of an individual who borrows money in order to buy a luxury car for pleasure driving. Such a transaction is known as a *consumption loan* and does not affect the economic rate of interest if the marginal productivity theory is accepted. Capital is productive only when put into the productive process. Assume a man produces goods in a factory with a certain number of machines and finds the total amount of his output. He then adds another machine and again finds his total production. The difference between the two totals shows him that capital is productive. This is exactly what the busines man does; he borrows to expand his plant. He increases the buildings and machines and finds that the increase in production brings in more than enough to pay his loan when it is due. In addition the plant produces enough to pay the lender interest for the services of the loan. If capital were not productive, interest could not be paid and there would be no demand for the use of capital.

Money Saved

Consumption loans are based on bargaining and are contractual in character in the same way that contractual wages are. The interest rate on this type of loan will not be far from the economic rate based on marginal productivity.

In the United States a vast amount of money was saved during the middle twenties (1924–1928). Holders of these large savings sought avenues for investment and could find none. Enterprisers were not expanding their industries. Already they had noted the indications of a depression. As a result great sums of money went into Wall Street to buy stocks and bonds in the market. This ran

the prices of securities very high, far beyond their ability to earn; then the collapse came. Savings had so increased the supply of capital that it far outran demand. Considerable quantities of these savings were corporate savings. Of individual savings in 1929, according to the Brookings Institution, 13 billions of the entire 15 billions were saved by 10 per cent of the population, those having large incomes.

3. How Rate of Interest Is Determined. Economic or theoretical wages are determined by the amount added to the total output by the last unit of labor in production, in other words by the marginal productivity of the last man hired, assuming that all men working in the group are doing the same type of work. Taking a fisherman's savings as an example it has been shown how the supply of capital comes into existence by first being produced and then saved. It is sometimes a painful process to save when a person needs or greatly desires to use his money immediately.

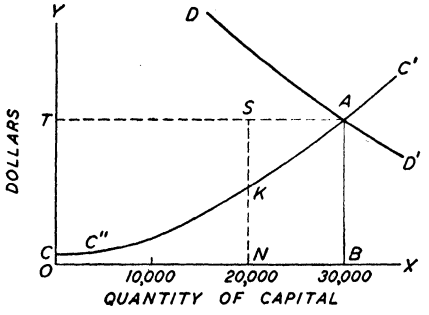


Fig. 38. Supply of, and Demand for, Capital Determining the Rate of Interest

Fig. 38 illustrates how supply and demand determine the rate of interest. Along the line OX is measured the quantity of capital saved and also the quantity of capital demanded by borrowers. Along OY is shown the price that the investor will require should be paid to him if he is to save and lend; along this line is also measured the amount above enough to replace itself, which the borrower expects the capital to earn when he puts it into a productive process. AB represents the price the marginal saver will require paid to him if he is to save and lend the unit of capital at B; AB also represents the amount that particular unit of capital must produce to make the borrower willing to take it. DD' represents the demand curve for capital and CC' the cost of saving it to those who deprive themselves of its use today in order to invest it.

The line CC' is an ascending curve to the right. The pain of saving is different for every individual. To some there is really no

pain in saving. Their saving may all be done through a corporation in which they are stockholders and it may not mean that they are deprived of anything they need or want. Others may find it a real deprivation to save. For example, a father is anxious for his son to have an education and is determined the boy shall not fail to have such a chance for lack of money; the father deprives himself of many pleasures or comforts. Perhaps he too cares for books; he goes without them and foregoes the pleasure of reading in order to save. His teeth may need care; he neglects them also. Many illustrations could be given of the real pain suffered by some people in saving. In Fig. 38 the cost curve from C to C'' represents the comparatively small amounts of capital saved that have cost these particular savers no pain.

Taking a step farther in this determining of the interest rate, assume that \$30,000 has been saved between O and B. At B is represented the last \$1,000 of the \$30,000 saved. The saver, or lender, or investor will not save that thousand dollars unless he can secure a rate of interest which will pay the price for which he will sell the services of his \$1,000 for one year. If his price is 6 per cent interest, this \$1,000 must be capable of earning \$60 in a year or the borrower will not want it. So AB represents the price for which the lender will sell the services of his \$1,000. AB also represents the marginal productivity of the last unit that the borrower will take, since this unit must be capable of earning \$60 when put into productive use.

This is known as the *marginal productivity theory*, and is but one of several theories of interest. Another theory is the *time preference theory*, which holds there is much difference between individuals as to their desire to use immediately any wealth they possess or to save their money and have it for future use. One economist[1] uses the word *impatience* to describe this desire of a person to enjoy immediately what he has, rather than run the risk of losing it by waiting. The degree of impatience depends on the character of the income of the individual and the character of the individual himself. Professor Fisher, an advocate of this theory, lists various characteristics that an individual might have that would affect his desire to save.

[1] Fisher, Irving, *Elementary Principles of Economics*, Chaps. XX and XXI.

These are: habit, self-control, expectation of life, foresight, and love of posterity.

It is at once evident that the marginal productivity theory would explain the rate of interest only when the amount saved and loaned was put into productive use by the borrower, while the impatience theory would explain the rate of interest only when a loan was made to a borrower who consumed it immediately by purchasing consumption goods to satisfy an immediate desire. A borrower in the first case could use the amount he borrowed to buy machinery for his factory, to buy raw material to use, and to pay the wages of labor—all productive uses. In this case the rate of interest would be set by the marginal productivity of the last unit of capital saved that a borrower could use in some productive process to pay for itself. In the impatience theory the rate of interest is set at the point where the impatience of the lender, either to use his wealth immediately or to keep it for future use, just equals the impatience of the borrower to have possession of the wealth either immediately or at some future time. Professor Fisher claims that, in a way, he really takes productivity into account.

There are contractual rates of interest, just as there are contractual wages. The setting of such contractual rates may depend on a number of factors. For instance, the rate of interest set by a banker on a loan to a customer will depend somewhat on how well the banker knows the man, his business ability, his honesty, and his relations with other business men, as well as the security he is able to give. Again, the contractual rate of interest, like the contractual wage, will be affected by the supply of money that is idle and seeking investment, and by the demand for money on the part of borrowers. As contractual interest is set by the process of bargaining, it will depend largely on the bargaining strength of the lenders and borrowers, and probably will not depart far from the rate that would be set theoretically by the productivity of capital.

KEY POINTS IN UNIT 4

1. In any study of economics we must remember the distinction between the different meanings of certain words; for example, *distribution* in this chapter deals with services and not commodities.

2. Determining values and setting prices for services of labor, capital, and land creates a market phenomenon exactly like that of a market for handling commodities such as hats or eggs.

3. The word *capital* also has two applications. *Capital goods* are in a sense different from *capital value*. When estimating his capital, an enterpriser does not list his tools, trucks, and various machines which are his capital goods; instead, he reduces all these items to a common denominator, money, by estimating the value of each item.

4. During the middle twenties (1924–1928) a vast amount of money was saved in the United States. People with these savings wished to invest them but were unable to do so because enterprisers, foreseeing a depression period, refused to expand productive plants. Consequently, people invested heavily in stocks and bonds, securities increased in value beyond their ability to produce, and the collapse of 1929 was inevitable.

5. The demands for capital are of various kinds. There may be demand for consumption purposes, as in the case of an individual borrowing money to buy an automobile as a luxury. Such demands are known as *consumption loans.*

6. Capital is productive only when it is in use in a productive process. If an enterpriser finds he can increase his production by adding another machine to his factory, he may borrow money to buy that machine. This kind of demand affects the rate of interest on the market, but the consumption loan does not.

7. Consumption loans are based on bargaining and are contractual in character just as contractual wages are. The interest rate on this type of loan will not vary greatly from the economic rate based on marginal productivity.

8. Economic or theoretical wages are determined by the amount added to the total output by the last unit of labor in production; that is, by the marginal productivity of the last man hired, assuming that all men working in the group are doing the same type of work.

9. Likewise, the economic rate of interest is set by the marginal productivity of the last unit of capital saved that a borrower can use in such a way that it will pay for itself.

Unit 5. Rent—Price Paid for Services of Land

A. Supply of Land.
B. How Rent Is Determined.

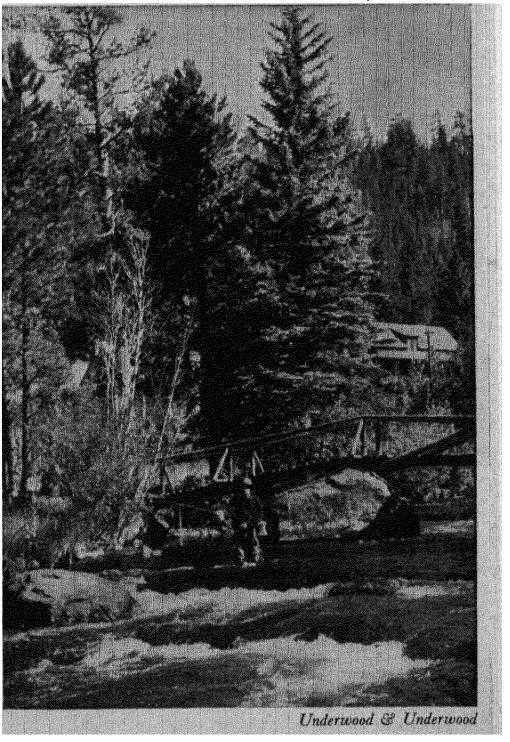
A. Supply of Land. Land has been defined as including the surface of the earth which provides location and fertility, the mines under the surface, the water power of the streams, and all natural resources. Land was originally a free gift of Nature. The slight amount of land that can be created by man in the processes of filling in lakes or draining swamps is negligible in comparison with the surface of the earth as a whole. This *made* land is so small in extent that in an economic study it may be disregarded. Land is not the result of human labor, and there is great variety in this natural resource. Temperature and rainfall which vary in all localities have a great influence upon the fertility of land. The composition of the soil differs in every part of the world. The nature of any soil depends upon the original rocks that were pulverized by weathering to form the soil. When land is cultivated certain fertilizers and other elements may be added to change the soil, but this is not a process of creating land; it is only a process of modifying what already exists.

Because of the different uses that man wishes to make of land, it can be classified under many heads. For example, some farm land is used for general farming; some in specialized farming for growing only one kind of crop, such as wheat, corn, or cotton; some land is kept for pasture or for hay; some is used only for truck gardening; other tracts of land may be kept for woodlands or forests.

Still other land is used primarily for what is found under the soil—minerals, oil, gas, and coal. There is still a further use of land that plays a large part in its utilization: a considerable amount of land is used chiefly for its desirable location, as in the case of cities. There are many uses of land even in a city. Some areas may be used for detached homes; other areas, for apartment houses for dwelling purposes. Still other areas may be used as commercial sections where are found railroad stations, department stores, banks, offices,

newspaper plants, and publishing houses. Other sections may be used for manufacturing plants, constituting an industrial section. In the larger cities there may be more than one section devoted to each of these diversified uses of land.

The uses to which land is put may change, and land may be shifted to either a higher or lower economic use. Of course, this has an effect on the supply of land for certain particular uses and has a bearing on rent. In an earlier chapter, it was pointed out that machines can be speeded up, compelling men to work more intensively, thus producing more goods; likewise, land can be worked more intensively and be forced to greater output.



Underwood & Underwood

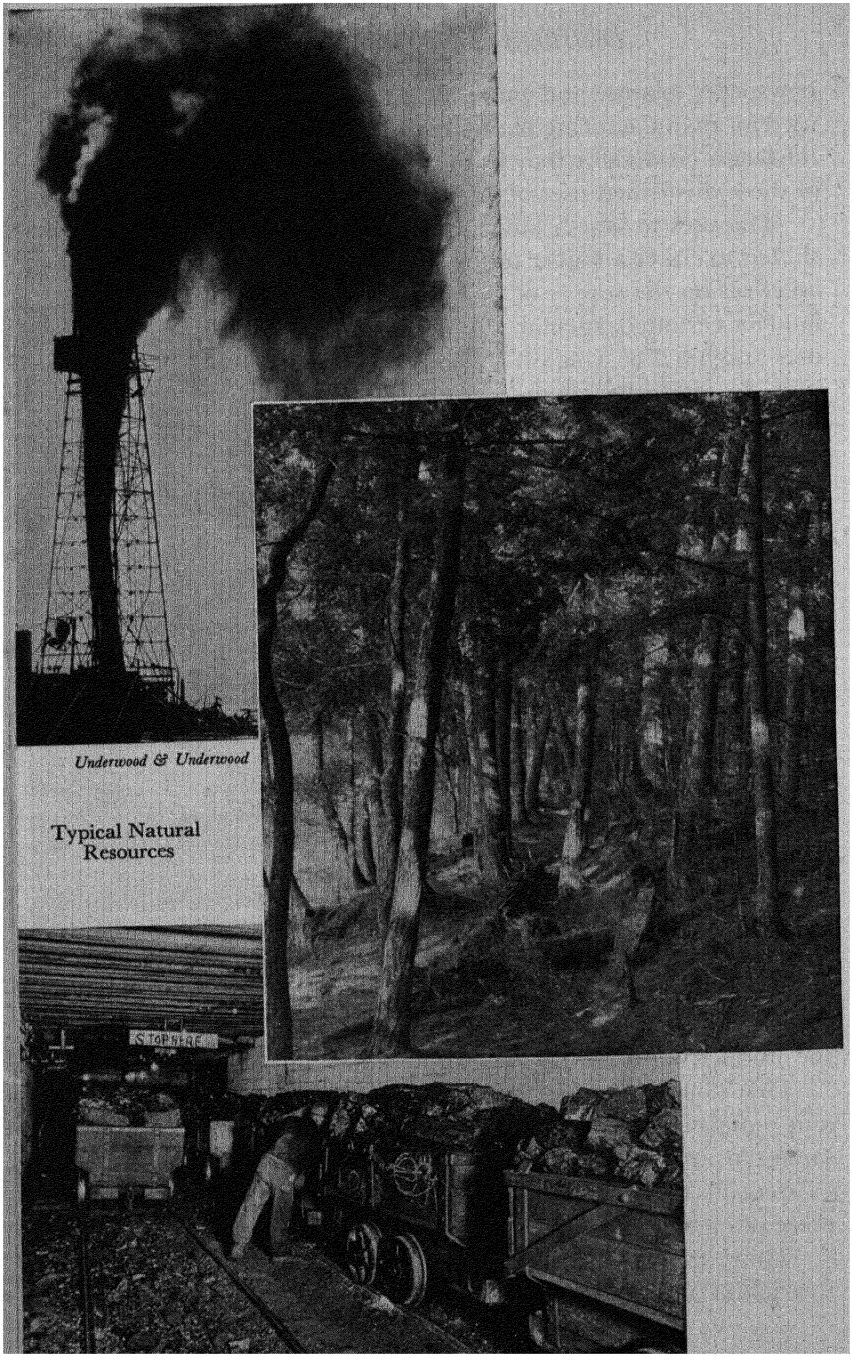
Land—Natural Resource

B. How Rent Is Determined. Fig. 39 illustrates the factors that determine rent under certain assumed conditions. In this case rent is known as *differential rent*, which is based on the difference between the productivity of a given piece of land and the productivity of land at the margin. Following are the assumptions:

First, four pieces of land of one acre each are indicated by the four equal sections of line OX, all of the pieces being used for the same purpose—the growing of wheat.

Second, the same amount of labor and capital is applied to each piece of land; this is indicated by the horizontal line CC'.

Third, the pieces of land are of different degrees of productivity, the richest piece being located at OH, the second richest at HK, and



Underwood & Underwood

Typical Natural Resources

so on. The poorest piece of land is *SX*, and this is known as the *marginal land*, since it is the last piece cultivated.

Fourth, since the quantity of land in each case is the same and the amount of labor and capital applied is the same, the difference in the output is due to the difference in the fertility of the land.

In Fig. 39, then, the different pieces of land shown along *OX* are of different degrees of fertility; *OY* is a scale line on which to measure output in terms of bushels; *CC'* is the cost line showing that the same amount of labor and capital is applied to each piece of land. The rectangle *OHNY* is the total amount of wheat grown on *OH; HKMD* is the amount grown on *HK; KSPF*, the total amount grown on *KS;* and *SXC'R*, the amount grown on *SX*, the marginal land.

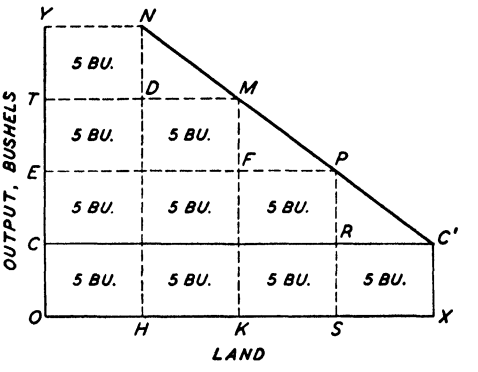


Fig. 39. Differential of Economic Rent—Physical Output

When a tract of land is all used for the same purpose and the same amount of labor and capital is applied to each piece, the difference between the amount produced on a given piece of land and the amount produced on the land at the margin is known as *differential rent.* It shows how much one piece of land differs from another in fertility or productivity. As shown in Fig. 39, land *OH* produced 20 bushels of wheat per acre, the marginal land *SX* produced 5 bushels. The difference, 15 bushels, is the differential rent; it is the difference between the marginal product of *SX* and the product of land *OH.* So on with each piece of land, *HK* has a differential rent of 10 bushels; *KS*, 5 bushels; *SX*, being the marginal land, has no differential and is called *no-rent land*, as it produces only enough to cover the cost of the labor and capital applied to it. The line *NC'* may be taken to represent the diminishing productivity of the land. This diagram deals only with physical output; that is, it deals only with bushels of wheat.

If an acre of land at *OH* were rented, the agreement might be

such that the landlord would receive 15 bushels if the rent were paid in kind; the tenant would receive 5 bushels, which would be just enough to meet any interest charges he might have, pay for labor he might hire, and pay a wage to him as a tenant manager of the land. If the owner of the land worked it himself he would receive the whole 20 bushels, which would include a rent of 15 bushels and enough to cover the costs, 5 bushels.

The foregoing discussion is based on the assumption of competitive conditions where the long-run price would be such as to just cover the cost of production. That would mean that the price of wheat would be set by the labor, capital, and managerial ability applied on the marginal land *SX*, in other words the cost of production, and since that land draws no rent there would be no differential rent element entering into the price of wheat. However, rent does affect and enter into price under different conditions and assumptions.

As in the case of labor there can be a contractual wage, so in the case of land there may be a contractual rent. Assume that the land at *OH* is being rented by the owner, who is an old farmer and has kept his farm in especially good condition—fences all in good shape, weeds kept down, buildings in good condition. He has seen a young farmer who, he believes, would take especially good care of the farm. Because of his expectations of a good manager on his farm he offers that young prospective tenant 7 bushels of wheat, from the 20 produced on an acre, instead of 5. This will mean that the landlord cuts down his rent from a possible 15 bushels to 13 bushels, and the tenant may add these 2 bushels to his managerial wage, giving him an exceptionally good wage due to his superior ability. This would be a *contractual rent;* it is near the differential rent but was set by the process of bargaining.

Moving next to the land at *SX*. This land bears no rent, but such land is frequently rented. If a tenant is especially anxious to secure land to work, he may offer to cultivate this land and receive only 3 bushels per acre, arranging to pay the landlord 2 bushels. This would mean that the tenant would have to cut his managerial wage; this would of course lower his standard of living. Again this is a *contractual rent.*

The following tabulation may make the whole situation clearer:

Acre of Land	Cost of Production	Total Output	Rent
OH	5 bushels	20 bushels	15 bushels
HK	5 bushels	15 bushels	10 bushels
KS	5 bushels	10 bushels	5 bushels
SX	5 bushels	5 bushels	0 bushels

This shows that on land *SX* at the margin there is, theoretically, no rent.

This subject of rent may be taken up from still another point of view. The assumptions for Fig. 40 are somewhat different than

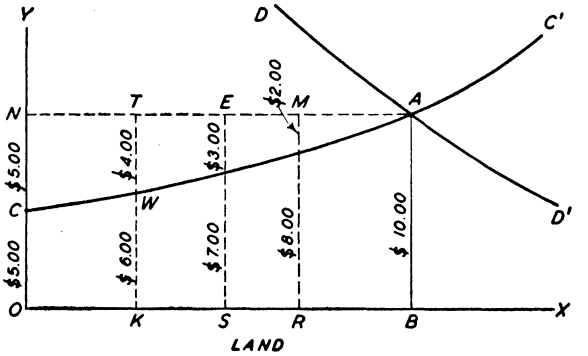


Fig. 40. Differential Rent—Monetary Units

those for Fig. 39. First, along *OX* again assume pieces of land of different degrees of productivity. However, here each point in the line represents an acre of land; for example, there is an acre at the point *O* and one at *K*, *S*, *R*, and *B*. *B* is the marginal piece of land.

Next assume that all the land is used for the same purpose, to grow wheat. To secure exactly the same amount of grain from each piece of land, different amounts of money must be expended; in other words, the costs are different. Assume that a tenant wishes to produce 10 bushels on an acre of land located at *O*. This time the cost is represented by *CC'*, an increasing cost curve showing that while it would cost $5.00 to produce 10 bushels of wheat on an acre of land at *O*, it will cost *KW*, or $6.00, to produce 10 bushels on an acre of land at the point *K*, and so on until on the marginal land at

B it would cost $10.00 to produce 10 bushels. All this is due to the fact that land grows progressively poorer, moving from *O* to *B*.

However, since the wheat produced at *B* is necessary in order to meet the demand for wheat, the price of wheat per bushel must be high enough to cover the cost on the marginal land, the *B* land (cost includes interest on any capital invested, wages of hired labor, and a managerial wage for the farmer). This being true, the land at *O* will make a surplus of $5.00; for it costs only $5.00 to grow the wheat and it will sell for $10.00 since theoretically there can be but one price in the market and all the wheat must sell for enough to cover the cost at the margin. In this diagram all of the area *CAN* is producer's surplus, or rent. As in Fig. 39 each of the producers on the better lands received a surplus because of the greater fertility of this land over the land at the margin. If the landlord owning land at *O* wishes to rent his land, it could rent for $5.00 per acre. Using the same method employed in the preceding illustration:

One Acre at	Cost of Production	Selling Price	Rent
O	$ 5.00	$10.00	$5.00
K	6.00	10.00	4.00
S	7.00	10.00	3.00
R	8.00	10.00	2.00
B	10.00	10.00	0.00

The foregoing discussions considered only land used for one specific purpose, but most of the land in our country has at some time been shifted from a lower use, for example grazing, to a higher use such as general farming. In such a case, rent can be said to enter into the price of the product in the higher use. If grassland is shifted to wheat growing, it is claimed that the differential rent on the land in the lower use must be considered as entering into the cost of producing wheat in the higher use, and that here is a place where rent enters into the price of the product. As practically all land has been shifted from a lower to a higher use, it is evident that rent of this type enters into all prices.

There are two kinds of margins in connection with land, one called the *extensive margin*, the other the *intensive margin*. *Extensive margin* is the using of different pieces of land for the same purpose,

moving from one piece of land to another, applying labor and capital until the piece of land will produce just enough to pay for the cost of producing; that is, until the price for which the product will sell is just equal to the cost of producing the product. This method of managing land was used for many years in this country. Farmers would work one piece of land until its productive qualities became temporarily exhausted; then instead of fertilizing the land, the farmer moved on to another piece of land. This could be done in America in the earlier days because there was such a great amount of cheap or free land.

The other margin, known as *intensive margin*, deals with one piece of land. In this case greater and greater amounts of labor and capital are applied until the last units added will produce just enough to pay for their own cost. This principle was discussed in earlier chapters and here it is applied to land. It is only in a country like Holland that the land is worked to the extent of intensive margin, for there is no wide expanse of cheap land, and farmers force their land to get all that is possible out of a given piece.

In previous chapters land has been considered for one use only, that of farming. However, when urban rent is determined, the principles discussed apply in city rents in exactly the same way as in rural rents. Here too, land may be used for specific purposes, as for individual dwelling houses, office buildings, or industrial plants. Here too, if dealing only with a specific use, no differential rent would enter into the price of the service derived from that land. But there is probably no piece of land in a city that has not been shifted at some time or other from one use to a higher use. In this case a rent element does enter into the cost of the service in the higher use. City land has been spoken of as providing a service, since it does not provide a material product as does the farm land, but only a location.

If taxes are laid on the rent of land, it is plain that the landlord must pay them himself. He cannot pass them on to the consumer of the product from his land because the price of that product is determined by the cost of production at the margin of *no-rent land*. Since there is no rent at the margin, there is no rent to be taxed and the tax cannot be shifted to the consumer.

The tax cannot be shifted to the tenant in case the landlord is renting his land. If an effort were made by the landlord to shift the tax to the tenant, this tax would have to be taken out of what the tenant must have to cover his costs. If his costs are not provided for, he will be forced either to leave the land or to reduce his standard of living by cutting down his own wages. It is generally agreed that the incidence of taxation on rent must be met by the landlord himself.

One final question arises in connection with rent. What is the relation of rent to the value of land? Suppose a piece of land is leased and pays the owner $300 per year. What is the value of this piece of land? Its value is found by the process of capitalization of the rent. Suppose the rate of interest is 5 per cent. Then by arithmetic, *principal* times *rate* equals *percentage;* or, *principal* equals *percentage* divided by *rate:*

or $$principal = \frac{percentage}{rate}$$

then, $$principal = \frac{\$300}{.05} = \$6{,}000$$

Therefore, the capitalized value of the rent, and consequently the value of the land, is $6,000.

KEY POINTS IN UNIT 5

1. Land has been defined as including the surface of the earth, the mines under the surface, the water power of streams, and all other natural resources which Nature has provided for the use of men.

2. Land was originally a free gift of Nature. It cannot be created by men. Any land that is made by filling in of lakes or draining of swamps is so small in comparison to the surface of the earth as to be negligible and should not be considered in an economic study of land.

3. The valuation of land is determined by the use made of it and its productive ability.

4. Land is usually classified according to the use made of it; for example, it may be used for agricultural purposes, for mining, or as sites for towns and cities.

5. Farm land may be divided into fields for general farming—that is, for growing wheat, corn, or cotton; other fields may be used for truck gardening; some land may be kept in grass for grazing of livestock, some for hay; still other land may be kept for woodlands and forests.

6. Land for towns or cities also may be divided according to the use for which each plot is intended. Some sections may be used for detached homes, some for large apartment buildings; other sections may be used as industrial centers for manufacturing plants; still others, as commercial sections with department stores, banks, office buildings, and similar business enterprises.

7. The use made of land may change from a lower to a higher use, or *vice versa;* this will have a bearing on rent. A piece of grassland may be shifted to the growing of wheat. This will increase its value.

8. Certain economic factors enter into the process of determining the value of land and the rent on the land. Among these factors are so-called *marginal land* and *differential rent.*

9. There are two kinds of margins in connection with land: *extensive margins* and *intensive margins.*

10. Rent is determined by the productive ability of land over a given period; for example, one year. Value of the land may be found by dividing the amount of the rent by the rate of interest.

Unit 6. Profits

A. Profits, a Functional Share.
B. Sources of Profits:
   1. Profits under Competition.
   2. Profits under Monopoly.
C. Conclusions on Distribution.

A. Profits, a Functional Share. There are two topics in connection with *distribution* that cause a considerable amount of discussion. These are *wages*, the returns received by labor, and *profits* which go to the enterprisers for performing the function of risk bearer, assuming that the enterpriser must be an owner or part owner in the business. There are different theories of interest and different theories of rent, but there is seldom any heated discussion of these two subjects. On the other hand, the wages of labor and the profits of the enterpriser have caused considerable dissension. There are strikes of labor and rather bitter recriminations on high profits, while rents and interest cause only occasional disputes.

In a corporate form of business there may be a considerable number of owners known as *stockholders.* As stockholders they receive

a return in the form of dividends; in other words they receive interest on the capital they have invested in the business. All of these stockholders may be considered as enterprisers, but if they live in widely separated parts of the country they cannot all personally manage the business; hence the stockholders elect a board of directors who in turn appoint managers to take over the actual conduct of the industry. These managers, like those performing any other form of labor, receive a wage, called a *managerial wage*. They are not necessarily owners but are usually part owners. If they are not

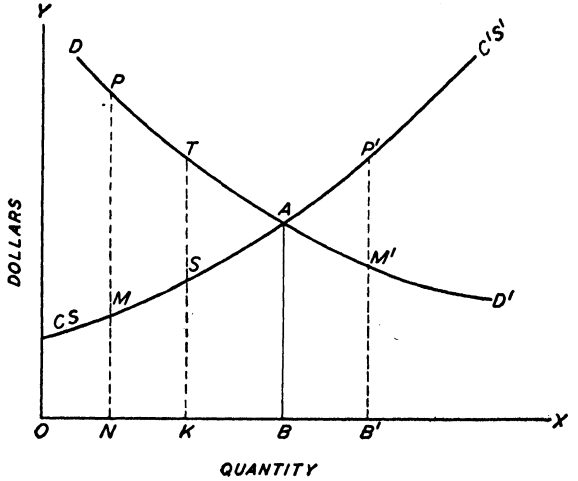


Fig. 41. Profits under Competition

owners, they are assumed to have no share in profits, if, as many economists argue, profits are a return only to owners for the risks they take in putting their capital into business.

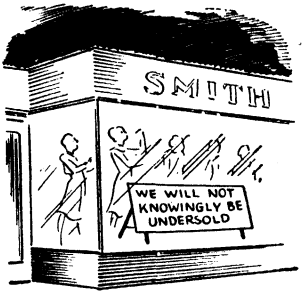
B. Sources of Profits. It is frequently said that profit is the great motive that attracts enterprisers to start a business; in fact profits are sometimes called the center of all economic activity.

1. Profits under Competition. It may be difficult to make profits under competition, since competition, in the long run at least, may force prices to the point where they just cover costs; these costs, including an interest on the capital invested, the wages of labor, rent on land, and wages to the enterpriser but no profit. Theoretically, this can be accepted as a long-run phenomenon. There is a

period before the *point of equilibrium* is reached when the price just covers the costs.

Fig. 41 is a familiar diagram showing a demand curve, DD', and a cost supply curve, $CSC'S'$, intersecting at A, which is the point of equilibrium, or the long-run price. But before this price is reached there has been a series of temporary or unstable prices. Assume the quantity ON is all that is produced, but that the demand would take the last unit of this quantity at the price PN. It costs NM to produce this last unit. This means that a profit equal to MP is made on that unit and a profit has been made on all preceding units, since they sold at a good deal above their costs.

It is evident (this being carried on under competitive conditions) that since there are many producers there will be an expanding of the output. Competition will grow strong among the producers (that is, on the supply side), and this competition on the sellers' side of the market will pull the price down. It may move down to T, another temporary price, and so on until it comes to A. At every price down to A a profit has been made under competition, and the whole area MAP represents profit. But at A there is no visible profit unless a nominal profit is included in the cost curve $CSC'S'$. If the producers went beyond this point to B' each producer would be selling at a loss, since the cost curve at that point lies above the demand or price curve; $P'B'$ being the cost and $B'M'$ being the price, the loss is $P'M'$.



There is still another angle to the making of profits under competition. It must be recalled that every producer or manufacturer is not only a seller but is also a buyer. He must, as an enterpriser, buy the services of labor for which he must pay wages, the services of capital for which he pays interest, and finally the services of land. All these factors enter into costs. If in bargaining for labor he has the advantage, he may make a contractual wage that is below the marginal productivity of labor so that if he works labor to its full productivity he is making a profit on the buying of labor. In the

same way he may make a contractual bargain with investors to get the use of capital below its real value to him; and, as we have seen in our discussion of rent, land can also be had at less than its marginal productivity. All this depends on the relative bargaining strength of the enterpriser and those who possess the service of the factors of production that he wishes to buy. It is pointed out by some economists, including Professor Carver of Harvard, that profits secured by shrewdness in bargaining are not legitimate profits, but simply mean that the enterpriser has taken something from the other factors of production that belongs to them and, by hard bargaining, appropriated it.

As an illustration of the foregoing situation, take wages. Assume there are only a few jobs and that there are many men with the requisite skill seeking to secure these jobs. The enterpriser has the advantage and is able to make a bargain and secure labor for an amount considerably below the amount that the labor will really add to the value of the enterpriser's product. The enterpriser, when his goods are sold, receives a gross income. Out of that he pays all expenses. Now if labor has added more to that income than it has been paid, that appears as a profit for the enterpriser.

There is some disagreement among economists regarding the question of whether or not profit is a *functional share*. Some say profit is not a functional share because there is no special factor that adds to the utility which earns the profit. If it is replied that the enterpriser takes risks, that is true, but the taking of risks is a part of his work as an enterpriser. The well-trained enterpriser knows how to handle risks, to shift them when necessary, to insure them when necessary, and to assume them when necessary. For all this work he receives an *enterpriser's wage*, or a *managerial wage*. If there falls into his hands more than enough to pay for labor, land, capital, and management of these services, this is not an earned functional share but a residual share—that is, a remainder which, through the position he holds in the business, comes into the hands of the enterpriser.

It is the duty of the board of directors of a corporation to see that all wages due are paid, including the entrepreneurial wages, as well as all rents. The directors then come to the place where they must decide on the amount that should go to the stockholders.

These stockholders have invested money on which they must receive interest. The return to the stockholders is paid in the form of dividends. These dividends include the interest on the stockholders' investments (which capital has earned and which is therefore a functional share) and dividends may partly consist of profits that have not been earned and are not a functional share. Profits are not always or entirely voted into the hands of stockholders in the dividends they receive. The board of directors may decide to retain them as a surplus in the business. However, since the enactment of

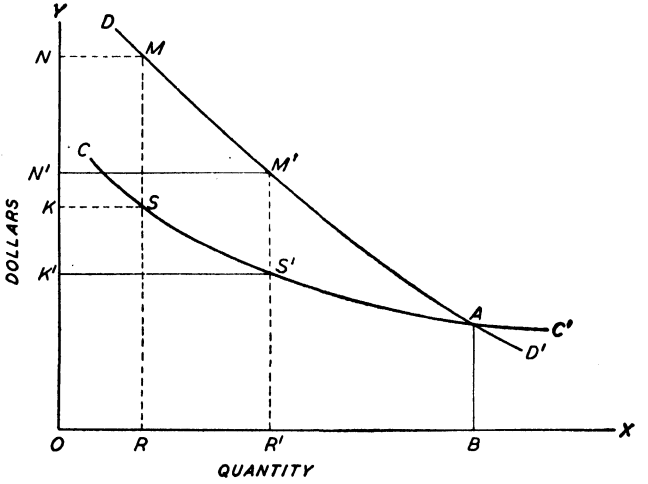


Fig. 42. Profits under Monopoly

Federal laws to tax surpluses there has been more of a tendency on the part of corporations to pay more of their profits out in the form of dividends.

2. *Profits under Monopoly.* A simple diagram, Fig. 42, illustrates the way in which monopoly profits may arise.

DD' represents the demand curve on which price is shown.

CC' represents the average cost curve. This cost curve is a decreasing cost curve, as most monopolies or near-monopolies are large-scale industries and on a decreasing cost curve. The monopolist has control of supply and, within certain limits, of price also.

The monopolist's interest is in making as large a monopoly profit as possible. Our diagram shows the cost curve cutting the

demand curve at A. Then AB would be the price that would be paid if the commodity were produced under competition and if competition proceeded to the point where it brought demand and cost to an equilibrium. But this is not the price the monopolist would choose, for at this point there is no profit; price just covers cost. The monopolist may decide to produce the quantity OR and sell it at the price MR. Under such circumstances he would make a profit of $KSMN$ (since the whole quantity OR cost $ORSK$ and was sold for $ORMN$, the profit is the difference between these two, or, $KSMN$). But the monopolist might not stop producing at this point and this price. If he expanded his output and put OR' on the market at the price $M'R'$, it is evident by inspection, that his monopoly profit which is now $K'S'M'N'$ is larger than $KSMN$ and that it would be to his advantage to expand his output and lower his price. It is at once evident, then, that monopoly price is not entirely dependent upon the cost of production. It is also clear that a large unit profit is not always the best policy if the quantity sold is small. If a lower price results in the sale of a larger quantity and brings the largest net profit, then this is the best policy.

A monopolist often classifies his prices. He sells a part of his output at a higher price to those who have larger incomes, another portion at a lower price to those with a slightly lower income, and still a third portion to a still lower-income group. In the three cases the goods will be identical, the only difference being in the service in handling them. This is made clear by a diagram, Fig. 43, and then by an example:

P,P', and P'' represent three prices at which the monopolist will sell. He will sell ON quantity at price PN. Then, quantity NN' will be sold at price $P'N'$, and $N'N''$ at $P''N''$. Since the entire amount will be produced at a unit cost of $K'''N''$, it means that the monopolist will make a much larger profit than if he sold the entire quantity ON'' at the price $P''N''$. $SPK'K$ represents the profit on ON; $S'P'K''K'$ is the profit on NN'; while $S''P''K'''K''$ is the monopoly profit on $N'N''$. If this graph were scaled and values given to the quantities and the prices, it would show that the monopolist selling under a classified price will make a greater profit than if he sells at only one price as was shown in Fig. 42.

For example: A certain sewing machine company manufacturing its machines in the United States charged $125.00 for a machine of a certain model in the United States, $87.00 for the same machine in Paris, France, and $37.50 for the identical model in South America. The machine was produced under monopolistic conditions, as it had a branded name, and if one desired this particular machine it could be obtained only from that company.

The company had classified its prices according to the purchasing power and the assumed attractiveness of its machines to the

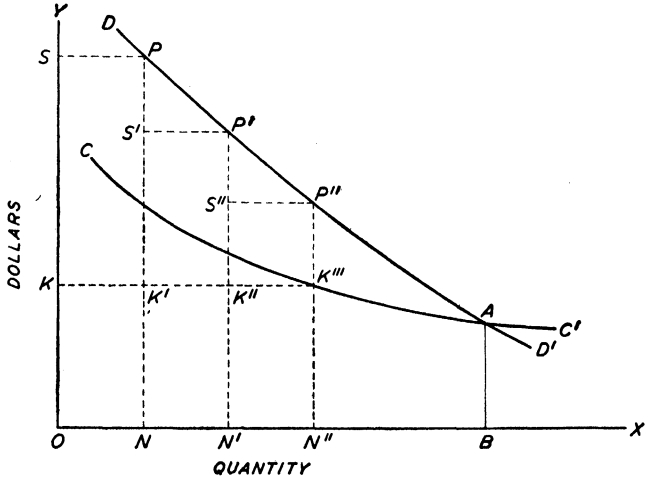


Fig. 43. Classified Prices under Monopoly

women of the various countries. American women, with higher purchasing power and more inclination, would pay the most. If the company wished to sell to South American women who were not so accustomed to the use of household machinery, who had less money with which to buy, and probably were more careful in how they spent it, the price would have to be lowered to attract them. However, the selling price was never brought as low as cost.

Some economists are spoken of as *price-profit economists* because they lay all emphasis on the productive process and its possibilities of making a profit. The so-called *welfare economists* approach the subject from the point of view of the satisfactions secured by the consumers for whom goods are assumed to be produced.

In this text the consumer is the center of economic activity and his desires are the motive force for production. In periods of depression, when men are out of work and purchasing power of the consumers has been greatly reduced, there is an inclination to criticize the organization of the system. It is pointed out that, even if profits cannot be made by the enterprisers, human needs go on, and men cannot live without food and shelter. Here arises one of the serious problems in economics. We have the capacity to produce adequately and supply all the needs of the people; enterprisers do not produce without making a profit; the demand for their goods depends on the purchasing power of the consumers, which cannot be increased if the workers are unemployed; and the enterpriser, without a profit, will not employ them. Thus mankind seems to be caught in a vicious circle.

C. Conclusion on Distribution. One of the most disputed subjects in economics is distribution. In concluding this subject, it will be well to continue briefly the discussion of *functional* and *residual shares*. It is generally agreed that rent, wages, interest, and the wage paid to an enterpriser for his work of organization, all are functional shares; that is, land, labor, capital, and the enterpriser give services for what they receive out of the national income. Each of these several factors has contributed directly to the productive process and is entitled to a share of the results of production.

But in most business undertakings, after all the items of expense have been deducted from the gross income, there is a remainder spoken of as a *profit*. Many enterprisers refuse to run a business unless there is such a surplus or profit. Some economists point out that nothing has been done to earn this share, that it is a residual, or remainder, and that under perfectly competitive conditions the amount that would go into the hands of the enterprisers and owners in the form of profit would be zero. Under conditions that are not purely competitive, it is possible that the contractual shares that go to labor or capital may be such that these factors receive a profit and the enterpriser does not; it should not be held that the business is unprofitable. As business is organized today, the so-called *profit*, if there is one, goes into the hands of the enterpriser as a *residual share* over and above the payment of all contractual shares.

Some economists hold that profits are the reward for the risk taken on the part of the enterpriser. It has been pointed out that the enterpriser who is trained for such a position is able to cover most of the risks of a business, and that handling risks is a part of his work as an enterpriser, for which he receives an entrepreneurial wage. Professor Carver[1] of Harvard University has pointed out that there are many unscrupulous ways of making profits, such as driving a hard bargain with the other factors of production, thus getting a part of the share of the national income that should have gone to them. This would be getting something for nothing. In other words, he takes something out of the shares of the other factors and puts it into his own. When estimating the costs of a business the accountant must, to be sure, include a certain amount for depreciation and obsolescence. But these are costs that must be dealt with like any other costs.

Another important angle to the subject of distribution is the purchasing power of a nation which depends first on the size of the national income to be divided, and second, on how it is divided. If industry is to survive there must be purchasers, and if there are to be purchasers they must possess the ability to pay for what they buy. Such ability to pay, for the great majority of people, depends on how much they can demand in exchange for their services; in other words, how much they can earn. The largest part of the buying public is made up of those who have incomes below $2,000. These people must have food and other necessary articles and they make up the great majority of the people as to numbers. If a large part of the national income goes into the hands of those who save large amounts but who constitute a small part of the buyers, we can see that this condition may, as in 1929, aid in bringing about a depression.

KEY POINTS IN UNIT 6

1. After all expenses of a business enterprise are paid, the excess remaining from earnings is the *profit;* that is, the share that goes to the enterprisers for performing, among other things, the function of risk bearer.

2. Profits are sometimes considered the center of all economic activity and are important in any discussion dealing with distribution of earnings to the various factors of production—land, labor, capital, and enterpriser.

[1]Carver, T. N., *Distribution of Wealth*, p. 287.

3. It is maintained by some economists that profit is the great motive that attracts enterprisers to start a business enterprise.

4. In the distribution of earnings, the so-called *functional* and *residual* shares are subjects which cause considerable argument.

5. It is generally agreed that the *functional shares* include: rent for use of land, wages for labor, interest on capital invested, and a wage to the enterpriser, since all these factors have contributed to the productive process and are entitled to a share in the results of production.

6. As business is organized today, the so-called *profit* goes into the hands of the enterpriser as a *residual share*, over and above the payment of all expenditures included in the functional shares.

7. An important angle to distribution is the purchasing power of a nation, which depends first on how much national income there is to be divided. If an industry is to survive, there must be consumers who are able to satisfy their desires by paying for what they want or need. That raises the question regarding their ability to earn enough to pay for what they want.

8. Ability to pay raises another question, that of *wages* (the returns received by labor) and *profits* which go to the enterpriser.

9. In times of depression when profits cannot be made by a business enterprise, human needs go on; men cannot live without food and shelter. This creates one of the greatest problems of economics.

10. Enterprisers do not produce without a profit; the demand for their goods depends on the purchasing power of the consumers, who cannot buy unless they have employment, and enterprisers will not employ them without a profit. Thus mankind appears to be caught in a vicious circle.

QUIZ QUESTIONS ON CHAPTER IX

1. *How does the meaning of* distribution *as used in this chapter differ from the meaning used in Chapter IV?*

2. *What are the four factors of production? In what form is a share of the national income paid to each factor?*

3. *Explain the part played by supply and demand in the prices paid to the factors of production.*

4. *Why does distribution present a problem in values? What two factors are indispensable?*

5. *Why are consumers' demands called* direct demands *and the producer's demands called* indirect? *Give examples to illustrate the difference between the two types of demand.*

6. *When an enterpriser decides to start a business, what services must he buy?*

7. *Name two important factors in the supply of labor.*

8. *How can production be speeded up without increasing the number of employees?*

9. *According to the marginal productivity theory, in what way is marginal productivity related to the contractual wage? How are contractual wages determined?*

10. *How does the supply of capital come into existence?*

11. *Where does the demand for capital originate?*

12. *Define* consumption loans. *How is the rate of interest determined on consumption loans?*

13. *Explain the difference between* extensive *and* intensive margins *in connection with land.*

14. *Explain the difference between the* functional share *and* residual share *of returns from productive processes.*

15. *In what way does the rate of interest aid in determining the value of land?*

16. *Why is the consumer an important factor in the problem of distribution of the national income?*

Chapter X

AN INTERPRETATION AND APPRAISAL OF ECONOMIC THEORY

OBJECTIVE: An appraisal of the economic theories advocated by prominent economists since the time of the Industrial Revolution in 1776.

PREVIEW: *Treating the subject of economics historically, we find that the numerous questions involved have been approached by noted economists with different attitudes, and various theories have been developed. Among these theories, the two most frequently stressed are price economics and welfare economics. In his "Wealth of Nations," Adam Smith, a pioneer writer in the field, laid emphasis on price economics, but also considered the general welfare of all the people rather than the personal gain of some individuals. Other early writers took the position that all social and economic values should be expressed in monetary units. According to this view, social organization was composed of three factors, landlords, capitalists, and laborers; and these three classes shared in the productive process. To this group of economists, price expressed in monetary terms was the final measure of social welfare. The laissez-faire theory was accepted by this group and all economic questions were observed from the employer's point of view. The share that should go to labor was determined by the subsistence-wage theory; that is, labor should receive enough to subsist and be able to reproduce itself. This was known as "classical economics."*

Later, a new class of economists known as the "neo-classical" group developed more advanced theories which took more account of the rights of the working class. They recognized that this class makes up the major part of the population and that the welfare of many workers is more important than the welfare of a few so-called upper-class individuals. The neo-classical group, though stressing the human element and the welfare of society, also stressed an economic exactness which especially marks the price economists.

More recent writers on economics recognize the importance of the satisfaction of the desires of the largest number of people. Yet, in their economic studies, many of these economists stress, more or less, the price-profit point

of view. This chapter deals with the various theories advocated by outstanding economists, recognized as authorities on the subject, from the time of Adam Smith to the present day.

Unit 1. Various Approaches to Economics

A. Price or Welfare Economics.
B. Institutionalism.
C. Psychological School.
D. Statistical School.

A. Price or Welfare Economics. The distinction between the so-called *price economics* and *welfare economics* has been shown by Professor Frank Fetter.[1] He does this especially in two articles published in the *American Economic Review.* Treating the whole question historically, Fetter has analyzed the attitude with which each economist has approached the subject. For example, Adam Smith writing his *Wealth of Nations* in 1776 laid emphasis on price to a certain extent, but he looked at it from the point of view of the general welfare of all the people, rather than that of the personal gain of some individuals. His work shows that Smith looked at the whole matter from the angle of social well-being and his was a democratic view in contrast to that taken by the commercial, manufacturing, and employing class that considered the matter entirely as it affected their private profits.

On the other hand, David Ricardo, writing in 1817, was wholly business minded. To him all social and economic values should be expressed in monetary units. He believed that the social organization is composed of three factors—landlords, capitalists, and laborers; they make up the three social classes and receive three shares from the productive process. Ricardo believed the share that went to labor should be determined by the subsistence wage theory; that is, labor should receive enough to subsist and be able to reproduce itself. As for the other two classes—landlords and capitalists—

[1]Fetter, Frank A., "Price Economics *versus* Welfare Economics," *American Economic Review,* Sept. and Dec., 1920.

he was more closely allied to the latter and interpreted most questions from the capitalist's point of view.

Ricardo's economics can be summed up under three points: first, he believed that price, expressed in monetary terms, was the final measure of welfare; second, he accepted laissez faire; third, in all economic questions he took the employer's point of view. His economics dominated England until 1860.

In 1848 John Stuart Mill wrote his *Principles of Political Economy*, which is largely a restating of Ricardo's position, with perhaps a slight humanizing touch. It adds little that is new to the classical or Ricardian economics, and it would be difficult to find any economists since the days of J. L. Laughlin (1850–1933) who have given much credence to the work of Mill. Smith, Ricardo, and Mill all laid emphasis on cost of production—the supply side of the market.

Various critics of the Ricardian economics appeared as early as 1839, including Thomas Carlyle, John Ruskin, and Charles Kingsley. Later, men like Arnold Toynbee and Thomas Hughes added their criticisms of the classical writers. Further, Karl Marx can be considered another of the antagonists of the so-called *middle-class economics* of the first half of the nineteenth century.

In 1871 a new attitude began to develop in economics. This attitude did not originate in America alone, but in England and Austria, also. The new economists were: in America, J. B. Clark; in England, W. S. Jevons; and in Austria (Vienna) Böhm-Bawerk. These three economists introduced the angle of value treated from the subjective side. They also introduced the concept of diminishing and marginal utility.

There was also at this time a group of historical economists and those who were interested largely in reform. Among the historical writers were J. K. Ingram and several German economists; and among the reform group, John A. Hobson.

Going back to the discussion of price economics versus welfare economics a new group is found, sometimes called *neo-classical* or from the name of the first writer of the group, *Marshallian.* Alfred Marshall of Cambridge University, England, was an excellent mathematician, but turned to teaching economics rather than mathematics. He may well be classified under the welfare group

since he held that economists were no longer dominated by the upper-class commercial bias, that they recognized the fact that the working class made up the major part of the population, and that it was more important that their well-being should be considered than the well-being of the few.

This does not mean that he made no contribution to economic theory, especially to price theory. In fact, he perhaps made, through the use of his considerable knowledge of mathematics, some of the most valuable contributions to theory. From the classical economists he took the cost-of-supply concept and with this combined the marginal utility idea put forth by Jevons. In other words he showed that, in setting price, both supply and demand or marginal cost and marginal utility came into equilibrium. It was Alfred Marshall who introduced many of the diagrams now used in economics, and portions of his work form the basis of many of the most recent theoretical economic concepts.

In connection with Marshall it should be noted that while at least a portion of his work laid emphasis on the human element, and the welfare of society, he also strove for an exactitude in economics that especially marks the price economists. However, it is generally conceded that his most worthwhile contribution to the subject has been that portion dealing with human welfare; for after all, his mathematical efforts never worked out to the exact measurement of many economic motives, and he made welfare *the* important thing in economics. It is well to state that Marshall's most comprehensive work is his *Principles of Economics* published in 1896.

Wesley C. Mitchell, whose extended research on the cycles of business is embodied in his *Business Cycles, the Problem and Its Setting*, has definitely stated that money and price are the center of all economics. They are, according to him, the factors which make economics realistic and profound. Mitchell is an excellent mathematician and statistician and his studies are backed up with statistical data. He aims for exactness and seems to believe that such work as his shows a pronounced advance over that of the *classical price economists.* And there is no doubt that it does. More than this, he does not fail to recognize the importance of social welfare (meaning by this the satisfaction of the desires of the largest number of people)

but none the less seems more greatly interested in the price-profit point of view in the studies he has carried on.

Turning to men like T. N. Carver and F. W. Taussig, both formerly of Harvard University, they may be quite accurately designated as *neo-classical* or *Marshallian* economists and both would be in the so-called *welfare* group. In general economics neither one has contributed a great deal that is new, both adhering to the marginal productivity theory in distribution.

Irving Fisher of Yale University, in his general textbook *Elementary Principles of Economics*, states definitely his position on the question of price economics versus welfare economics. His position is that economics has to do with human welfare and life in its relation to wealth. While Fisher has thus shown a wide interest in economics as related to human welfare, he has not failed to make notable contributions in those portions of the subject where price is an important factor, as in his book on *Booms and Depressions*, as well as in his theoretical treatment of interest.

J. L. Laughlin, formerly of the University of Chicago, was a price economist and in theory belonged to the classical school. He was perhaps one of the last survivals of that school so far as the economists are concerned, although the theories of that group still dominate the thought of many business men. Professor Laughlin was recognized in his day as an authority on the subject of money and banking, which is, of course, closely allied to price phenomena.

Professor Frank Fetter, of Princeton University, classifies himself as a welfare economist but, like others of that group, points out that price economics has its due place in the subject. He has been classed by some of his associates as belonging to the psychological school.

John R. Commons, formerly of the University of Wisconsin, may be placed in the welfare group but, like most of that group, has made notable contributions in other fields.

In closing this brief survey of price economics versus welfare economics it seems fitting to mention Professor A. C. Pigou, the successor of Professor Alfred Marshall at Cambridge University, England. He has seen fit to name his most important work *The Economics of Welfare*, but the titles of other volumes of his work show that he has a wide knowledge of the field of economics. These works

include *Industrial Fluctuations*, *A Study of Public Finance*, and the *Theory of Unemployment.*

B. Institutionalism. In the preceding discussion the economists were grouped entirely with reference to whether they approached the subject from the point of view of price, profits, and trade (the business man's way of looking at economic problems) or from the angle of the relation of wealth to human welfare.

In considering the mass of material that comes under the head of economics, there are other approaches or attitudes to the subject that must be taken into account. By 1890 Thorstein Veblen in the United States and Sidney and Beatrice Webb in England were writing on the development of economic institutions. The many volumes of Veblen deal not only with institutions, but with theory. Among the titles are: *The Theory of the Leisure Class*, *The Theory of Business Enterprise;* and outstanding among those on institutionalism are *Absentee Ownership* and *The Engineers and the Price System.* The breadth of his scholarship is shown in other works such as *The Place of Science in Modern Civilization* and *The Instinct of Workmanship.* Still further, his use of the historical method is illustrated in *Imperial Germany and the Industrial Revolution.*

Before discussing the meaning of *institutionalism* it is well to mention Professor John R. Commons, the second American economist, best known for his work as an institutionalist although he has also been an outstanding authority in all matters pertaining to labor problems. A purely theoretical work, *The Distribution of Wealth*, was done in his earlier days. His institutional contributions have been the result of his more mature years. These include *The Legal Foundations of Capitalism* and *Institutional Economics.* An *institution* has been defined as representing a group activity; that is, collective action. *Institutionalism* is not then a new theory of economics; its purpose is not to displace other so-called *schools of economics*, but rather to trace, historically in any time and place, the development of the collective activity of groups that are engaged in economic action. In general, an institution may be considered a group of social usages. Among institutions may be included corporations, trade unions, and chain stores. From the wider social point of view our whole background is made up of institutions, including many that are not economic, such as churches and schools.

Turning to definitely economic institutions, it is correct to say that they represent control in collective action. For example, previous discussions dealt with systems developed by control of economic power. It was stated these might be capitalism, sovietism, or facism. Capitalism, then, is an institution; private property, for example, being one of the institutions within capitalism. Within the structure of any one of these broad, numerous variations will be possible in monetary and credit systems, methods of exchange, and labor relations. Repeated in still another way: Our social system, which is itself an institution, is made up of a great number of institu-

Private Property, an Institution under Capitalism

tions which are modified and adjusted to it so that the aggregate fits into our system as a whole.

Professor Commons has seen fit to call property the basis of institutional economics; he then proceeded to make a study of court decisions that determine whether certain activities of business or labor unions are beneficial to public welfare. This, with the tracing of the extent to which former writers in economics have dealt with collective activity, seems to give the foundation for Common's institutionalism which he considers more realistic than the deductive theorizing which he had done in his earliest work on the *Distribution of Wealth.*

The benefit of this study of economics from the institutional point of view is that it serves as a means of comparison. Those of us

who live in the United States, for example, have grown up in a capitalistic society. We are accustomed to the institutions that characterize it, and these have largely determined our way of thinking. If we had no knowledge of other institutions, such as those that preceded ours, we would have nothing for comparison. Comparison is necessary in every social science, hence the value of institutional economics.

C. Psychological School. When in 1871 W. S. Jevons published in England his book on *Theory of Political Economy*, the classical economists who laid their emphasis on cost of production, or the supply side of the market, were dominant in economics. Jevons held that the demand side of the market was as important as the supply side in determining exchanges of goods and their prices. What will cause a person to decide to take an article? Bentham's psychology of pleasure and pain was popular at the time and Jevons used that as the basis on which his utility theory rests. According to Jevons, demand is determined by the choices of goods that are made, and these choices depend on the utility that a chooser believes an article possesses. Utility depends on the pleasure or pain that the article may give to the one who chooses it or who, in other words, purchases it or comes into possession of it. Jevons laid little emphasis on the purchaser's ability to buy. That remained for later treatment.

The question arises: exactly how does Jevons use the terms *pleasure* and *pain?* An illustration will make it clear. A student is anxious to possess a book, not one for a textbook in a course, but one that he believes, from all he has heard of it, will give him a great deal of pleasure. This student is working his way through college, hence his money is secured by exerting a good deal of effort. He must face the problem of whether the pleasure he will get from the book will be as great as the pain of the hard work he must do to earn the book. Thus, according to Jevons, while labor is a means of securing pleasure, it can become a source of pain when too intense and when too long continued.

At about the time Jevons was writing in England, J. B. Clark was writing along the same line in America. The use of the word *hedonism* is found frequently in connection with Jevons and other British writers of this utility group. *Hedonism* is the belief that pleasure

is the chief end in life and that moral duty is fulfilled in the gratification of pleasure-seeking instincts. However, Clark did not emphasize this hedonistic attitude, and when Alfred Marshall introduced utility into his system of thought he preferred to use the word *satisfaction* instead of *hedonism.*

It should be noted here that under the Jevonism pleasure-pain concept the emphasis was laid on the motive that decided what choice should be made. Later a new school of psychology arose; however, this was not due to William James's *Stream of Thought* theory, which seems not to have exerted much influence on economics, but to John B. Watson's *behavioristic* theory. According to this theory, behavior, or the activities of human beings, is the subject matter of human psychology. Some economists have taken this point of view as the necessary method of approach to economics. In a volume on economic behavior recently compiled, the authors devoted their efforts to describing the behavior of various groups. In fact, a considerable number of economists in recent years have become behaviorists. Wesley C. Mitchell claims that the writings of some economists show they are not well trained in psychology.

Underwood & Underwood

Collecting Material for Statistics

Perhaps some of the institutionalists might be classed as *gestaltists.* The Gestalt psychology is based on the theory that the organized whole bears such a relation to its parts that the whole is greater than the sum of its parts. However, this result depends not only upon the relation existing between the whole and its parts, but also upon the relation of the parts to each other.

D. Statistical School. *Statistics* may be defined as the numerical study of groups. In economics, as in other social sciences, it is difficult to use the experimental method as it is used in the physical sciences. But one experimental method that can be used in the study of economics is that of statistics. The use of mathematics in discussing social problems began as far back as 1682 when William Petty published his *Essay on Political Arithmetic*, in which he introduced the use of tables and made an effort to interpret them. The majority of teachers of economics now use statistics to some extent at least. Statistical research is a field which attracts many students because of the great number of opportunities open to trained statisticians. The various departments of the Government and many industrial establishments require the services of a large number of such workers. Employees of our Federal Government gather statistics on foreign and domestic trade for the Bureau of Foreign and Domestic Commerce and for the Interstate Commerce Commission; on banking, for the United States Federal Reserve Board; on money and currency, for the Treasury Department; on business cycles, for the Department of Commerce; concerning all phases of labor, mainly for the Bureau of Labor Statistics.

In private industry where economics departments are a part of the organization, much work is done of a statistical character in both the cost-accounting department and in the sales department.

It is interesting to note that the new growth in the use of statistical methods came from a group of biologists in England, who decided that mass observation was necessary in order to arrive at anything like accurate conclusions in their subject. Karl Pearson, a scholar of high mathematical training, aided their work, and the methods laid down by him have spread to all English-speaking countries.

The method of procedure for a statistician is first of all to collect and group similar units into classes. He will then proceed to work out statistical tables, his purpose being to use these tables, representing a limited number of units, as a basis for drawing a general conclusion that would apply to the entire body of units. Among the economists who have used statistics extensively is Wesley C. Mitchell, especially in his work relating to the business cycle.

KEY POINTS IN UNIT 1

1. Two important positions taken by economic writers are those of price economics and welfare economics.

2. Adam Smith, a pioneer writer in this field, in his *Wealth of Nations* in 1776, stressed price to a certain extent but emphasized the general welfare of all the people, rather than personal gain for a comparatively few individuals.

3. David Ricardo, an early writer of the classical group, advocated expressing all economic and social values in monetary units.

4. Ricardo maintained that the social organization is composed of three factors—landlords, capitalists, and laborers. He observed all economic problems from the point of view of the employer and believed that labor should have only a subsistence wage.

5. Later writers took more account of the rights of the working class. A leader among this group was Alfred Marshall, who should be classed as a welfare economist. He was the first writer among *neo-classical* economists.

6. More recent writers on the subject belong generally in one or the other of these classifications, although some new ideas have been advanced from time to time; among these are institutionalism, the psychological school, and the statistical school. Of the more recent economic writers who have done special work in their field are: W. S. Jevons, J. B. Clark, Wesley C. Mitchell, Irving Fisher, John R. Commons, and many others who have followed the teachings of the more outstanding writers and leaders.

7. *Institutionalism* is sometimes defined as representing group activity. This is not a new theory of economics. Its purpose is to trace the historic development of the collective activity of groups. Some of the writers in this group base their theories upon the psychology of Gestalt.

8. Among institutions included in these studies are: corporations, trade unions, chain stores, and others that are not economic, such as churches and schools.

9. The classical economists laid emphasis on cost of production, or the supply side of the market. In 1871, W. S. Jevons published his *Theory of Political Economy*, in which he pointed out that the demand side of the market is also important.

10. According to Jevons, demand is determined by the choice of goods by consumers. In making the choice the utility of the goods is considered and an element of pleasure or pain weighed in the mind of the person making the decision. This involves a psychological phase.

11. Another group of economists known as the *statistical school* stressed the numerical study of groups of people. Statistical tables came into use as a basis of study of various factors involved in economic problems. The use of statistical methods originated with a group of biologists. Their work was aided by Karl Pearson, a highly trained mathematician.

12. In a general textbook, *Elementary Principles of Economics*, Professor Irving Fisher of Yale University definitely states his position on price economics versus welfare economics. He believes economics is concerned with human welfare and life in its relation to wealth.

Unit 2. Economics and the Law

In previous discussions it has been assumed that economic principles are not like man-made laws. However, man-made laws may greatly affect economic activities. For example, if price making is based on free competition in a capitalistic society, it is at once evident that as soon as a tariff is passed, free competition has been modified and in the field affected by the tariff.

If a law is passed limiting to eight hours the working day of men engaged in underground mining, this also modifies the free bargaining in setting hours. The contention might be made that free competition did not exist before the law was passed, since the bargaining power of the employer and employee were not equal, equality being assumed as one of the conditions under free or perfect competition. Such protection to labor is for the purpose of more nearly equalizing the bargaining power of employer and workman.

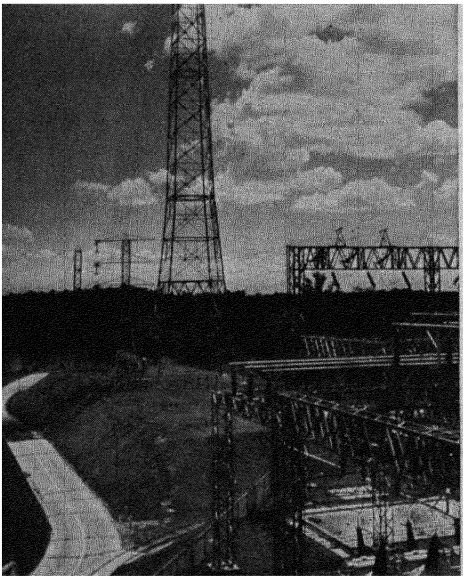
Then the question may be raised as to the relation of the welfare of the public and the passing of laws to protect it from harmful economic activities. Frequently laws must be passed to protect the public against the depreciation of services. This is especially true under conditions where the service is provided by a monopoly. In such a case, since there are no competitors, the monopoly may render any kind of service it sees fit. This may happen in connection with public services such as telephone companies and electric companies.

The public must not only be protected in service, but also in the quality of goods offered by industry. Pure-food laws illustrate such protection provided by Federal laws.

By 1890 the United States had reached the end of the laissez-faire period in America. The Federal Government became a more

and more dominant element in the whole social structure, in fact it played its part in all secular affairs. By 1887 the Interstate Commerce Commission had its administrative and regulative-control system fairly well developed.

Some time before this, industry had recognized the importance of government and had begun the practice of hiring men to represent their interests in Washington and at the state capitols. These groups, known as *lobbies*, used their influence to affect laws that might have a bearing on their own particular industry.



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Electrical Transmission Lines

With the widespread development of electric power, large scale industry, railroads, and other utilities, both producers and consumers have recognized that the Federal Government in the form of laws and court decisions is dealing with industry that has been transformed by the science of engineering.

There is still another angle to the relation of economics to government. The majority of the laws passed in any country are laws pertaining to economic questions. This means that the men whom we elect to represent our country, both at home and abroad, should be well trained in the science of economics. Only those who have had a thorough and practical economic training should be entrusted with the making of our laws because these laws affect both domestic and foreign trade, all matters relating to finance and the making of budgets and taxation, the relations of employers and employees, as well as the relationship of industry to the general public.

Lawmakers, then, are one group of people who must be trained in economics if the rights of the people in a democracy are to be safeguarded. Whether in lawmaking or any other of the departments of our Government, there is no place for men or women who are not thoroughly informed on matters relating to the great economic problems that the people, whom they represent, must face. This does not mean that every person so serving the Government must be a college graduate.

Lawmaking is not the only point at which economics and the Government meet. The courts are another place where many and serious contacts are made. The curricula of law schools contain a certain amount of economics, but it is recognized by most thinking men who have come up through the law to judgeships, that the amount of economics received in their training proved to be entirely inadequate when cases came before them that involved any of the multiplicity of economic questions which arise daily in our highly industrialized life.

The field of lawmaking and rendering decisions in court are by no means the only ones in which special training is necessary in the subject of economics. All administrative offices, and there are many of these in both the state and Federal Government, require a large amount of knowledge both of economic principles and of economic history. All cabinet offices in the Federal Government are administrative, yet they are largely filled by political appointees who in many cases do not have adequate knowledge of economic conditions to supervise their department efficiently. In the same way since commissions have begun to play so large a part in governmental affairs, men should be trained in economics before taking a position on a Tax Commission, Tariff Commission, Transportation Commission, or any other of the great number of such commissions in the Federal and state governments.

If this is true for those who serve the Government in various capacities, it is no less true that the physician, engineer, and other professional men find that there is a growing need for them to understand some of the principles of economics.

KEY POINTS IN UNIT 2

1. Economic principles are not like man-made laws. However, man-made laws may greatly affect economic activities.

2. In a society where prices are based on free competition, the passing of a tariff law modifies the operation of free competition in the field affected by the tariff.

3. If a law is passed limiting the working day for men to eight hours, free bargaining no longer exists. The purpose of such a law is the protection of labor by more nearly equalizing the bargaining power between employer and employee.

4. The passing of certain laws involves the question of what relationship exists between the welfare of society and legislation for public protection.

5. In the case of a monopoly an unfair advantage may be taken of the public by providing poor service because of the absence of competition. Laws can be passed to improve such a condition; for example, laws regulate public utilities.

6. The public must not only be protected in service, but also in the quality of the goods offered by industry. Pure food laws illustrate such protection provided by legislation.

7. Passing of certain laws necessary for public protection presents the problem of selection of men for administrative positions. Too often these men are political appointees who are not qualified by training or education for the responsibilities they assume; inefficient service is the natural result.

Unit 3. Economics and the Public

The Economist in Relation to the Public, as a Research Investigator. To one of America's great physicians has been ascribed the statement that in the medical field a specialist is one who knows more and more about less and less until he knows all about nothing, and that a general practitioner is one who knows less and less about more and more until he knows nothing about everything.

In the field of economics we must also have specialists. As in medicine, these men should have first the broad and careful training that must be part of the education of all well-trained economists. Having completed this broader foundation, he may choose some particular field in which to specialize, just as the physician may choose to specialize in diseases of the heart or lungs.

In this highly specialized work the economists may be of little

or no interest to the general public. In fact, there are those who would apply the noted physician's statement concerning medical specialists to specialists in economics. However, research work in economics is necessary if the science itself is to advance, provided the topics chosen for such investigation are recognized as having vital interest for the field of economics.

Then there is the economist who more nearly approaches the medical man called the general practitioner. He, also, knows a considerable amount concerning a number of things. He has no doubt done some research work, but is more probably a writer of general textbooks and occasional articles on timely subjects. He is more likely to lecture before public gatherings and to conduct courses for men and women who have perhaps not had university training. He serves on local and Federal committees and generally makes his influence felt in public life. In many cases he runs for political office, perhaps having the idea that men engaged in professorial positions should serve the country of which they are citizens in the same way that other men serve.

Many economists have gone over into the mathematical field so far that their material is unintelligible to the average citizen. Having seen an Einstein in physics, many have striven to become an Einstein in economics. As we have emphasized, mathematics are necessary in economics, statistics is a strong support on which the science partially rests. But much of this, like the theories of physics, is not intelligible to the many with limited education. Then some may ask, Why bother about the man who cannot understand these things? The answer is: This is a democracy; every man and woman is a citizen with the power to participate in government and they do so either poorly or well. As to which it shall be, will depend on how much of the knowledge of scholars has been put in a form that the average citizen can understand, so that he too may become a thinking part of the body politic.

In England many economists, such as Professor John Maynard Keynes of Cambridge University, have for years devoted a considerable amount of their time to serving the government by helping to solve its many economic problems in finance, budget making, and taxation. Methods of paying for the war required serious con-

sideration on the part of England's economists. Professor A. C. Pigou has written a volume on the *Political Economy of War.*

English economists have gone far in another direction. Many have devoted much time and effort to teaching night classes for working men and women. Others, high in both the social and physical sciences, have presented in print the principles of economics or physics in language simple enough so that the average reader can understand and profit by it. Such efforts have not been criticized in England as has been done in other countries where it was held that to try to make a subject intelligible belittles the subject and the man who attempts it.

During the depression which began in 1929, many economists in the United States were called by the Government to give advice concerning methods of handling banking, monetary, and other problems. These men were among the best-trained men in economics in the country, the best that American universities could produce and in many cases their study had been supplemented by study abroad. This was a test of whether their theories could be of value in handling practical questions. In many cases they were of value; in other instances factors existed in the actual conditions which theory had not taken into account and therefore the results were not good.

KEY POINTS IN UNIT 3

1. The importance of specialization in the field of medicine has long been recognized; likewise, the importance of a broad education before specialization.

2. In the field of economics we must also have specialists with broad education.

3. To many people the highly specialized economist is uninteresting and much of his work unintelligible. However, intensive research in economics is necessary if the science is to advance; moreover, the topics chosen for investigation must be those recognized as having vital interest for the field of economics.

4. There are some economists, like the general practitioner in medicine, who may know something about many subjects. Such a man has done some research no doubt, but his writing is apt to be limited to general textbooks or an occasional article on a timely subject.

5. These general-information economists often serve on Federal and local committees, and their influence is felt in public life. Such men are sometimes elected to public office.

6. On the other hand, there are economists who have specialized to such an extent that their material is unintelligible to the average citizen.

7. Some specialists hold the opinion that it is no use to bother about people who cannot understand the more specialized features of economics, such as the Federal Reserve System, for example.

8. The answer is that we live in a democracy; every man and woman is eligible as a citizen to partake in the affairs of the Government. It is important, then, that trained specialists do their part in helping the average citizen to become a thinking part of the body politic.

9. There have been in England for many years, men who have specialized in economics and devoted their time to service of the government in helping solve problems in finance, budget making, and taxation. Others have spent much time and effort in teaching night classes for working men and women.

10. In the United States during the depression (1933) many economists were called upon by the Government to give advice on methods of handling banking, monetary problems, and regulation of business.

11. These men were among the best trained economists in the country, and in some cases their advice was of value. However, in other instances factors existed, in the actual conditions, which theory had not taken into account; consequently the results were disappointing.

QUIZ QUESTIONS ON CHAPTER X

1. Explain the difference between price economics *and* welfare economics.

2. Name two economic writers who belonged to the price-economics group. Show in what way each of these men contributed to the price-economics theory.

3. Who wrote the Wealth of Nations? *Why is this work important in a study of economics?*

4. What is the meaning of institutionalism? *Give examples of institutions in which special research has been done.*

5. What economist introduced the psychological element into economic theory? Was he a price or welfare economist?

6. What is the meaning of hedonism? *Of* behavioristic? *Of* Gestalt?

7. With what group of research workers did the use of statistics originate? These workers were assisted by an expert from what other field?

8. Who was the first writer in the neo-classical *school of economics? In theory, was he a price economist or welfare economist?*

9. Is an understanding of the principles of economics of any special value to a judge on the bench? Is a knowledge of economics of value to other professional men, such as physicians, engineers, and teachers of subjects such as history or literature?

10. Give examples of economists who have served the public by assisting their government.

11. During the depression (1933) did the trained economists of the United States contribute materially to the relief of the financial difficulties which confronted the Nation?

12. Name five economists in the United States who have made extensive research investigations in their field, and who published textbooks or other material of value in a study of this subject.

Chapter XI

THE FARM PROBLEM

OBJECTIVE: Importance of agriculture in relation to other industries and the effect of farm problems upon consumers.

PREVIEW: *Of all the numerous and varied industries in existence today, agriculture is the basis of them all. Without agriculture no other industry could exist. Every manufacturing plant must be continuously supplied with raw materials. These materials, including a vast grain supply, vegetable foods, and fiber products, all come from the land. Other raw materials provided by farmers include livestock—that is, cattle, sheep, and hogs—and these are passed on to consumers in the form of foods and many useful by-products, among them such materials as leather, wool, hair, bristles, and various fertilizers.*

The underlying purpose in the use of the soil should be to secure the best possible standard of living for all the people of a country, including the farm population. Since farm families are also consumers, their share of the national income should be given more consideration than is usually given to it by the city dweller, the large-scale industrialist, and the Government. The percentage of the national income received by farm families has never been equal to the percentage of the farm population; however, these percentages do, of course, vary.

The farmer's problems of course differ from those of the manufacturer, the merchant, the banker, or the professional man. One of the factors that plays an important part in agricultural supply is nature itself. This is mostly beyond the control of man. No matter how great the efforts of the farmer or how much he may have expended in fertilizers, a drought is something he cannot control. The same is true, to a certain extent, of insect pests and crop parasites; even when the farmer has been guided by an agricultural expert, these factors still are often beyond man's control. Despite forecasts by the Weather Bureau, floods as well as untimely frosts and other unpredictable events continue to harass the farmers.

This chapter deals with the importance of agriculture and the effect of farm problems upon consumers.

Unit 1. Agriculture as an Industry

A. The Importance of Agriculture.
B. Agricultural Economics.

A. The Importance of Agriculture. The major portion of attention in economics has been given to manufacturing industries; that is, to the conversion of raw materials into finished products. Most of the illustrations cited are of industries that are producing consumers' goods or else producers' goods such as machines that are to be used in factories for further production. Those enterprisers who engage in such industries are continually spoken of as *businessmen.* In general textbooks on economics, agricultural economics has taken a secondary place in comparison with so-called *industrial economics.*

It has been pointed out in this text that more than 32,000,000 persons, or about 26 per cent of our entire population, are living on farms; and there are more than 10,000,000 persons employed on the farms, constituting more than 21 per cent of those gainfully employed in the United States. For the year 1930 it is estimated that a sum of more than $57,500,000,000 was invested in agriculture, including the land, buildings, machinery, and livestock. The total value of all manufacturing industries is only slightly greater than that of the total amount invested in agriculture.

Agriculture is basic for all other industries. Without it no other industry could go on. Every manufacturing industry must have raw materials. These raw materials must come from the land. They include livestock—cattle and sheep and hogs—passed on as food to consumers, together with the by-products such as leather and wool, as well as the vast number of vegetable food and fiber products. They do not include, for instance, horses used for productive purposes on the farm.

Agriculture is largely an industry of the soil. The underlying purpose in the use of the soil should be to secure the best possible standard of living for all the people of the United States. This

means securing good homes and adequate and stable incomes for, among others, the farm people, and an abundant and continuous supply of farm products for all the people.

It must be recognized that, just as there are city slums, there are also rural slums. These are found in areas where farmers are attempting to make a living on submarginal soil. The discussion of land and rent dealt with marginal land which produces just enough to cover the cost of production at the margin and give to the farmer an enterpriser's wage adequate to maintain a decent standard of living. Submarginal land does not provide such a standard of living, and the cultivators of such land fall into the conditions of a rural slum. Such land should be retired from farming. This discussion indicates the importance of farming to those who are directly engaged in it.

The relation of agriculture to other industries has been slightly touched on. Agriculture must provide a great part of the raw materials that go into manufactured goods. However, there is another angle of importance: the farming population is also a consuming population and is a most important part of those who must buy manufactured goods. But although the farming population constitutes 26 per cent of the whole population, the portion of the national income that it receives is still only 10.2 per cent. The proportion of the national income received by the farming population has never been equal to its percentage of the entire population.

B. Agricultural Economics. Agriculture is a competitive industry. In 1935, there were 6,212,350 farms in the United States, which means that this number of enterprisers were competing in the farm markets. The land area of the United States is about 1,903,000,000 acres; of this, farming occupies 55 per cent, or 1,054,000,000 acres. The average-sized farm is 154 acres.

These numbers show that on the supply side of the market there are many producers, which is one of the requirements for a competitive market.

There is still another condition that makes farming a competitive industry. The product in the majority of cases is made up of identical units. Take wheat for example. To be sure, wheat can be graded, but within the grade every kernel of wheat is as identical

with every other as it is possible to imagine. The same is true of cotton. Within the grade, competition will take place, but competition will also take place to a certain extent between the grades.

In farming there is a large amount of fixed or constant cost. This includes the fixed investment in the land, the buildings, interest and taxes, and the enterpriser's wage. These will continue whether the farm is producing much or little. The variable costs include labor, hired more or less irregularly by the day or month, quantities of fertilizer, seed, and gasoline to use in motor machinery, with other similar items that usually form only a small percentage of the total costs.

One thing that affects the supply of agricultural products is mechanization. Although this has not made itself felt to the extent that it has in other industries, nevertheless it has had considerable effect in farming. The tractor, now in general use on the farm, has made many decided changes in the kinds of machinery used.

One factor that plays a large part in agricultural supply is nature itself. This is mostly beyond the control of man. No matter how great his efforts or how much he may have expended in fertilizers, a drought is something he cannot control. To a certain extent the same is true of insect pests and crop parasites unless the farmer has received special guidance from the Agricultural Department. Even then, under certain conditions they are beyond man's control. Floods, as well as untimely frosts, are other of nature's unpredictable hazards.

Another condition that affects the supply of agricultural products is the competitive character of the industry. If prices of wheat are high, farmers will plant many acres of wheat and will face falling prices when this greatly increased supply comes onto the market. This is made clear in Fig. 44.

The *OX* and *OY* lines indicate quantities and dollars, respectively, as in previous diagrams. *DD'* is the demand for wheat and *CSC'S'* is the original supply line for wheat. With this demand and this supply the price is at *A* and the quantity brought to market is *OB*. Attracted by the high price, many or all wheat farmers enlarge their production and the new supply curve is represented

by $C''S''C'''S'''$. This line cuts the demand curve and stabilizes the price at A', the new quantity is OB', the new price is $A'B'$. Thus competition among the wheat farmers has brought about an increased supply of wheat and falling prices.

Education is another most important factor in determining not only the supply but also the quality of agricultural products. For some time extension work has been carried on among farmers. Important branches of this extension work, fostered by the agricultural colleges and the state departments of agriculture, were the Farmers' Institutes. The Federal Office of Experiment Stations

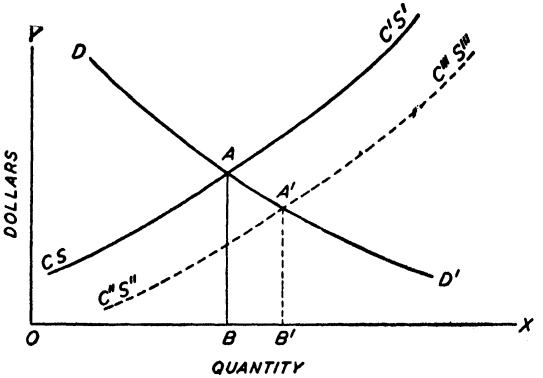


Fig. 44. Effect on Price of Increase of Supply of Farm Products

in 1901 received an appropriation to support this work and 8,861 institute meetings were held with an attendance of more than 3,000,000 persons, in 1914.

The first county extension agent was appointed in 1906. The outstanding characteristic of the work of the county agent is the fact that a trained agriculturist, interested in finding methods and organizing programs for improving conditions, is located permanently in a definite area. This system of county-agent work was made the basis for the Smith–Lever Act in 1914. This Act gave a foundation for co-operation between the land-grant colleges and the United States Department of Agriculture. The work of the county agents has been directed primarily to the improvement of crop and livestock production.

Much of the extension work in soils has been along the line of instructing the farmer in the use of proper fertilizers for specific soils and crops, the conducting of fertilizer and lime demonstrations, and the making of quick soil tests. One of the results of such extension work is the development of co-operative programs for soil conservation among the farmers of a community. Soil erosion has been a difficult and widespread problem for the farmers to deal with. Without assistance from experts in this matter and without the co-operation of the farmers of a community, little can be done. In order to carry out such co-operative work it has been necessary to organize a Soil Conservation Service in practically every state. Demonstrations are held and surveys made of various areas to determine the types of control that must be used to stop soil erosion. Three specific results accomplished by this work are: first, the public has been educated; second, the demonstration work has shown the farmer the value of the practices; and third, a large number of technicians—agronomists, engineers, and forest experts —have been developed. Erosion by water and the wind-blown erosion require quite different treatment. In connection with the latter, increasing the acreage of cover crops, such as the vetches, rye grass, winter peas, the clovers, and others, was one method used to protect the soil against winds.

One angle of the extension work is the organization of the boys and girls between the ages of 10 and 20 into 4-H clubs. The clubs are organized by the county agent and directed by adult persons; part of their emphasis is on gardening, poultry raising, and various projects for improving farm homes. In connection with this phase of the work with youth, the agricultural high schools should be mentioned. Their courses are especially intended to bring the high-school student in contact with those subjects which will give him a scientific knowledge of plant life, soil conditions, and all the topics that have to do with agriculture.

The Farm Bureau Federation grew out of the support given to county agents by local groups of farmers. The farmers organized into bureaus or committees and took an active part in the farm improvements that were carried on by the county agents. By 1921 the membership of the bureau had grown to more than 1,000,000

persons. A considerable part of the energy of the bureau was expended in working for certain legislation affecting marketing and credit. Some effort was also expended in establishing co-operative undertakings. These bureaus largely depended on the county agents for advice and for leadership. The bureaus also work with the grange, another farm organization.

The fact that the supply of agricultural products is affected by the law of diminishing returns must not be overlooked. This factor makes itself felt when a given piece of land is worked intensively until the intensive margin is reached and diminishing productivity begins. Similar results are also obtained when cultivation is extended to new pieces of land until an extensive margin is reached. This is the point where, as in the case of the intensive margin, the last units of the productive factors used produce just enough to pay for themselves.

Demands for Farm Products

The farm problem involves not only the supply of products created through the processes that make up agriculture, but also the demand for those products. First, there are the products that are used for food. These include not only the plant life that contributes to man's food demands, but also the animal life that plays such a vital part in agricultural activities.

The standard of living of a people has much to do with the demand for food products. The people of the United States, with their higher standard of living, demand foods of greater variety and of a better quality than the people of China. Further, the income of the people, which is closely related to the standard of living, has much to do with determining their demands. The occupation in which individuals engage will have an influence on their demand for food. The man doing hard muscular work will need food that is quite different from that needed by the bank clerk.

The rate of increase in population also has a decided effect on the demand for food products. In young countries there is usually a rapid increase in population. This is due to the abundance of

resources and a scarcity of labor. Such an increase in population gives the farmer the prospect of a steady and large increase in demand for his products. As has already been pointed out, more recent years have seen the percentages of increase of our population declining with the prospect of its eventually becoming stable. Therefore, the American farmer must take this into consideration when estimating the future demand for his produce.

Foreign trade has also been a source of outlet for farm products and has had a considerable influence on the demand for agricultural products. The attempts of various countries to become self-sufficient have had some effect in decreasing demand. It is now too early to predict in what direction foreign trade will move in the future.

So far this discussion has dealt entirely with the demand for the plant products used for food. However, large areas are devoted almost entirely to the raising of cattle, sheep, and hogs; chickens, turkeys, and other fowls are also important foods. Not only is meat provided by the agricultural industry, but butter, milk, cheese, and eggs constitute an important group of products.

Agricultural products also form a most important part of the materials used in industry. Take, for example, the fiber crops. Cotton and flax are two agricultural products that are in great

Rice Fields in China *Underwood & Und*

demand. Our own cotton-textile industry depends on our cotton crop, and we have hitherto exported a considerable amount. A discussion of cotton involves the subject of by-products or other uses of cotton. Not only is the cotton fiber important, but other valuable products are also secured from the plant. The seed is used for making cottonseed oil, and the cottonseed meal left after the oil is pressed out is used as feed for animals. This raises a question involving an important economic principle, that of setting the price under conditions of joint costs. Stated briefly, the principle is that the *joint products* secured must sell for enough to cover the cost of the original source from which they came. That is, in the case of cotton, the cotton fiber, cottonseed oil, and cottonseed meal must sell for enough to cover the cost of growing the cotton plants that produced them.

Turn now to cattle; a cow is the source of many products. While alive, she may produce milk from which butter and cheese are made. When slaughtered, the products are meat, hide, and various minor products secured from hair, horns, and hoofs. As in the case of cotton, these products must sell for at least enough to cover the expense of raising the cow.

Other farm products much in demand are: the soy bean, used for oil, food, in paint, in plastics, and for other industrial purposes; the sugar beet, used in the manufacture of sugar; the products of woodlands, woods for the making of furniture, interior woodwork in houses, lumber for building purposes, paper pulp, and many other uses. This list of products could be extended indefinitely, showing the basic character of agriculture, both in providing food and in producing the raw materials needed in all manufacturing industries. An increase in demand and the effect of such an increase on price is shown in Fig. 45. In the case of both Figs. 44 and 45 a decrease either in supply or demand could be worked out by inserting a new supply or demand curve at the left of the original supply or demand curve.

In Fig. 45, the new demand curve is shown at the right, or away from zero. The original amount brought to market was OB and the price at which that quantity sold was AB. With an increase in demand, the quantity produced and brought to market is OB'.

This cuts the cost curve *CSC'S'* at a higher point, *A'*, and since the price must cover the cost of production, the new price will be *A'B'*, a higher price. Assuming competitive conditions here, the rise in price brought about by the increase in demand seems reasonable.

The portion of the national income that goes to the farmers of the country was previously mentioned. In 1929 the total national income for all the industries of the country was about $83,000,000,000. Of this amount $11,900,000,000 went to the farmers. But out of this amount the farmers had left only about $4,890,000,000 after they had paid taxes, wages to hired labor, and interest. These figures indicate that although the agricultural popu-

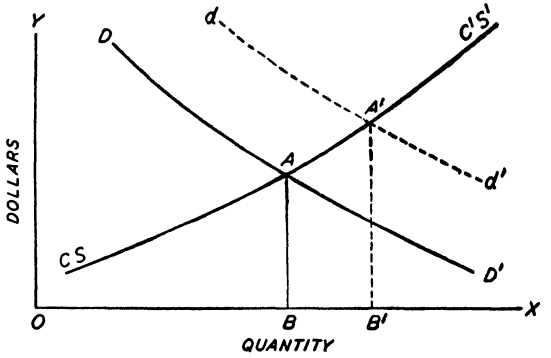


Fig. 45. Effect on Price of Increase of Demand for Farm Products

lation formed about 26 per cent of the population of the country, they received approximately only 10 per cent of the income and even that did not entirely represent purchasing power.

This has an important bearing on the relation between the prices of the products of agriculture and those of other industries. Nonfarm production in 1934 was 42 per cent below the 1929 level, whereas farm production was only 15 per cent below its 1929 level. But industrial prices averaged only 14 per cent lower than in 1929, while farm prices were 39 per cent lower. The problem is to give to agriculture its due share of the national income through large production rather than by limiting production. This means that there must be an increase in both farm and factory production. If agriculture increases its output, urban industry must do likewise

or there will be lower relative farm prices and perhaps a decrease in the share agriculture gets of the national income. There must be co-operation between agriculture and other industries if this problem is to be solved. Parity income for agriculture must come about, not on an extremely high price level through competitive scarcity, but on a lower level consistent with increased production and consumption. Parity, or fair exchange prices between farm and industrial goods, can thus be established with best results for the farmer and the industrial worker.

KEY POINTS IN UNIT 1

1. Agriculture is a basic industry. Without the supplies of raw materials provided by farmers, few other industries could be carried on.

2. The by-products of raw materials supplied by agriculture make possible many other industries; for example, the manufacturing of leather and woolen goods.

3. The underlying purpose in the use of soil should be to secure the best possible standard of living for all the people of a country, including farmers' families.

4. Farming is a competitive industry. Each product in the majority of cases is made up of identical units. It is true some products may be graded, for example, wheat; yet within the grade every grain is identical with every other grain.

5. Many costs in farming are fixed, such as original cost of land, buildings, taxes, and interest on investment. These costs continue whether the farm is producing much or little.

6. Variable costs include hired labor, fertilizers, seed, and cost of farm machinery, together with horsepower or gasoline to run the machinery.

7. Nature is an important factor in agriculture. Drought, floods, and insect pests, all are damaging factors which cannot be foreseen nor controlled by men.

8. Increase in population and in foreign trade increase the demand for farm products.

9. Some sections of any country are more suited to one kind of farming than to another. In some sections of the United States wheat and corn are produced, in other sections cotton is grown. Cattle are raised in some parts of the country, while other parts are better for sheep.

10. The proportion of the national income received by the farmers' families has always been low, considering the percentage of farm population. Since farm people are also consumers, an increase in their income is reflected in the income of other industries.

Unit 2. Soil Misuse

A. Causes of Misuse.
B. Remedies for Soil Misuse.

A. Causes of Misuse. We do not often hear of misuse of machinery in a factory. In most manufacturing industries, the machinery is expensive and the greatest care is taken to guard it against injury or damage. Before men are put to work in a factory they often are given instruction as to the use and care of the machinery. Not only are the machines guarded, but the raw material that is being processed is carefully watched, also, so that no injury may come to it. A workman found guilty of damaging either machine or materials would be immediately removed from that machine, and probably dismissed entirely by the company employing him.

Land is the agricultural instrument as machines are the industrial instruments. The soil is the thing with which the farmer must work. A farmer who is a graduate of an agricultural college knows the composition of soil, how it must be treated, when it is lacking in certain elements, the importance of keeping it free from weeds, best methods of cultivating, crop rotation, and the importance of giving land a period of rest at certain times. He will be able to decide what crops are best for the land he is using. These and many other problems in farm operation, like the handling of insect pests, he will understand and manage with skill because of this training on the experimental farm at the agricultural college.

He is an exceptional farm enterpriser, one who would be expected to show superior farm management. A large number of farmers are classed as enterprisers, each one working for himself either as tenant or owner and making the decisions as to what ought to be done on his farm.

But not all farmers are university or college graduates, and there is no doubt that in many cases lack of knowledge on the part of the individual farmer has a great deal to do with misuse of the soil and the consequent waste of resources.

However, lack of education and skill are not the only things that have led to misuse of the soil. There are many things in our social and economic life that have had a considerable influence on the results of the use of our soil. Our nation began in a region of great resources and with an individualistic people. As a result, land and forest territory were taken possession of and used to the limit, the soil being worn out and the forests ruthlessly destroyed. Early settlers looked on the land as a means of getting rich quickly, since a considerable amount of speculation went on in the early days and even up to the time that free and cheap land disappeared.

There is another angle to agriculture that has been making itself felt in recent years. Having worn out the land, and in many cases having plowed up grasslands to use for growing crops, submarginal areas and dust bowls have been created. At times, many farm people have found themselves forced to seek relief in order to live at all. This relief comes from various governmental sources and is a temporary necessity, but such emergency measures should not be extended any longer than is necessary in order to find and remove the conditions that cause these demands for relief.

Tenancy has a considerable effect on the care of the soil, as many tenants do not have sufficient interest in maintaining the production of the land they rent. With a considerable increase in tenancy, this becomes a serious problem of the use of soil.

In 1935, 42 per cent of all owner-occupied farms and about 25 per cent of tenant-occupied farms were mortgaged. Heavy mortgages on these farms mean discouraged owners and tenants, who do not work toward keeping up the soil.

In states in which there are no state income taxes and in which the intangible property is not adequately searched out and taxed, the great load of taxation falls on real estate. This becomes a heavy burden to the farmer and, because of the expense involved, makes it more difficult for him to do things that he well knows should be done to preserve his land.

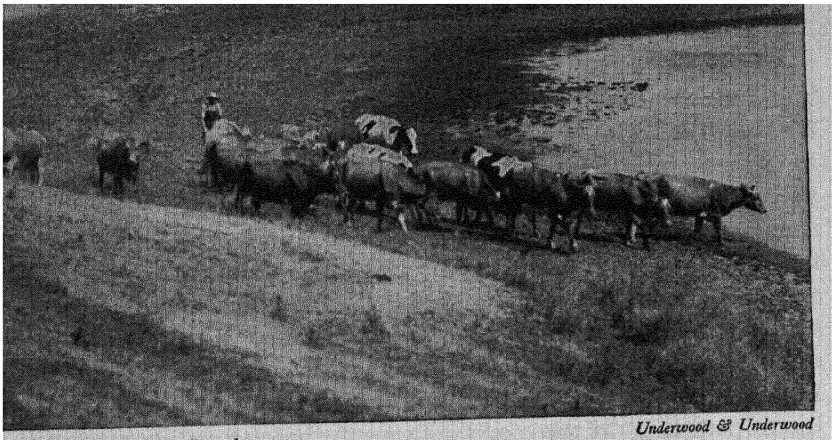
Our Department of Agriculture has pointed out (Year Book 1938, p. 10) where these conditions lead. "In agriculture they are reflected in lower standards of living, mortgage and tax delinquency, loss of property and abuse of the soil."

B. Remedies for Soil Misuse. The Department of Agriculture has outlined the steps necessary to remedy the injury that has already been done to the land with which the farmer must work in order to produce. First is education on agricultural topics, with which we have already dealt, but it is necessary that education should be considerably broader than acquiring the technique of farming only. Better schools should be maintained in those areas where there are low-income farms. Here an effort should be made to develop in the young people ambitions either to make a success on the land or to fit themselves for some urban employment. Further, a better view of the requirements for good citizenship and the responsibility of those on the farms to conserve and preserve the resources of the land should be taught.

Outside of the schools there is a large opportunity for educational work through the extension service which brings the people in contact with the Department of Agriculture and the state experimental stations. The soil conservation service also carries on educational work.

Perhaps one of the most important contributions to efficiency in farm management is the research that is carried on by the Government. This consists largely of a study of the soils and experimentation with the crops that should be grown on the vastly different farm areas of the country. This type of work leads to planning the use of the land. We are, as a nation, just beginning to carry on such land planning and to think in terms of planning. At the present time, with all the different agencies that are working along this line, the greatest need seems to be to co-ordinate these various efforts which now sometimes run counter to each other.

Another phase of the land question is the public domain. There are at present 162,000,000 acres of public land in the West which is too poor to support human beings. Here the best plans have not been carried out, for year after year about 1,500,000 head of horses and cattle and about 6,500,000 sheep and goats are raised on this land. As a result the grass coverage has been so depleted that about 19 out of every 20 acres are now exposed to erosion. This means that there must be better regulation of the feeding on these public lands.



e Grazing on Public Land

The forests belonging to the nation cover about 175,000,000 acres of land. In this case the Department of Agriculture has laid down a strict program of conservation which is being carried out as far as the finances available make it possible.

Here are five points dwelt on by the Department of Agriculture as essential in the relation of the farmer to the land. First, suitable tillage; second, maintaining the supply of organic matter, principally by the use of proper rotations and cover crops; third, correcting soil acidity in the humid regions; fourth, providing an adequate supply of phosphorus; fifth, using mechanical measures to control erosion where rotation and cover crops are not sufficient.

KEY POINTS IN UNIT 2

1. In manufacturing industries, expensive machines are protected and carefully handled in order to prolong the usefulness of this valuable equipment.

2. In agriculture, such precautions are often neglected in the case of the land, which is the foundation of the industry. This neglect results in great losses to the farmer because of an inadequate return on his investment.

3. Most farmers are classed as enterprisers, each one working for himself either as owner or tenant of the land he cultivates.

4. Our nation originated in a region of abundant resources; consequently, for many years the soil was not held in as high regard as it should have been. Early settlers looked upon the land as a means of getting rich quickly and engaged in much speculation in real estate until the free and cheap land had all disappeared.

5. During the first third of the present century, tenancy on farms in the United States increased so considerably that this has become a serious part of the problem in connection with the proper use of our soil.

6. Farm tenancy is apt to foster neglect of the soil, as oftentimes tenants do not have sufficient interest, in the land they rent, to attempt to maintain its productivity over a period of time.

7. In 1935, 42 per cent of all owner-occupied farms and about 25 per cent of tenant-occupied farms were mortgaged. A heavy mortgage on a farm tends to discourage the farmer so that he fails to keep up the productivity of the soil, whether he is an owner or tenant.

8. In states which do not have income-tax laws, taxes on farm land become a heavy load. These tax burdens not only lower the standard of living of the farm population but also result in tax delinquency, loss of property, and misuse of the soil.

9. The suggested remedies for soil misuse include education of the farmers and their children in care of the land and in their responsibility as good citizens. The young people on the farms should be specially encouraged to study soils and use only the best methods of tillage for a particular type of soil; to use proper rotation of crops; to correct acidity in humid regions; to provide adequate fertilizers when soil becomes worn out; and to use measures to control erosion whenever necessary.

Unit 3. Farm Tenancy

A. Extent.
B. Need of Change in Tenant Contracts.

A. Extent. Since 1880 one of the prominent phenomena in agriculture has been the great increase in the number of farm tenants. This of course has as its counterpart the increase in the number of nonoperating or absentee farm owners. In earlier days the great majority of the farms were owned, managed, and worked by the same person. But as the cheap lands disappeared in the latter part of the nineteenth century and agriculture became more commercialized, there was a steady increase in the number of tenants.

Between 1880 and 1935, a period of 55 years, the number of farm tenants in the United States increased from slightly over 1,000,000 to 2,865,000, a gain of 180 per cent. The gain in the

number of farms operated by owners was only 32 per cent. Much of this increase in tenancy has taken place in regions of specialized *cash-crop* production. The unusual increase in tenancy, then, we find in the cotton, tobacco, rice, and sugar-cane regions and to a less extent in the corn and wheat areas. There were but moderate gains in the regions of general and dairy farming.

Some farmers own part of the land they work and rent part of it. In 1935, 52 per cent of all farmers were renting all or a part of the land they worked. If all the land rented by tenants is added to the land rented by part owners in 1935 it is found that 45 per cent of all land that was being farmed was operated under lease.

B. Need of Change in Tenant Contracts. The Department of Agriculture has discovered that there are at least three ways in which the present system of tenancy is seriously lacking. These are: (1) there are no incentives for the tenant to improve or even maintain the standard of the farm he is renting; (2) tenants who make improvements are often forced to take an actual loss; (3) there are often in rental contracts portions that hinder programs of soil conservation rather than aid them. To remedy these it is necessary to further educate not only the tenant farmers, but also the landlords, concerning the relationship that should exist between the two.

It is the insecurity of tenure that discourages the tenant farmer from making improvements on the farm he is working. When a lease runs for only one year and there is no promise that it will be renewed, the tenant has little interest in improving the land; and so far as buildings and fences are concerned, he merely keeps them intact. Further, often the only contract the tenant has with the owner is a verbal one. Students of this subject insist that state laws should require that the leases be written, following a form provided by law, and also that they should be drawn for a period of five years or more. With such a long-term lease, the tenant who makes improvements has an opportunity to enjoy them; with no security that his lease will be renewed, he has no interest in making any improvements.

Under existing conditions, the tenant may make improvements by liming or by growing legumes to improve the soil, make terraces to avoid erosion, build pasture fences and improve buildings, only

to find that, instead of being compensated for these improvements, his rent is raised.

To protect the financial interests of the tenant when he has made improvements, it is suggested that state laws be passed that will define the conditions under which improvements are to be made by a tenant, and how he is to be compensated when his lease expires. The various kinds of improvements will of course call for different arrangements concerning compensation. Some improvements, such as large buildings, works of irrigation and reclamation, fences, or wells cannot be made without the landlord's consent. There are improvements which the tenant can take with him when he leaves, but those named are not removable. There are other improvements, such as devices for erosion control and improvements in the home, which the landlord may have neglected to attend to after he has been informed of the need of them. Finally, there are the improvements that come through fertilizing and liming the soil, which may be attended to by the tenant. The amount of these improvements he will make will depend on his sense of security and the protection that state laws may give him as to compensation for immovable improvements at the expiration of his lease.

In the case of failure of a tenant to pay his rent, it is suggested that some provision be made by state law to limit to a certain extent the landlord's lien for collection of rent, especially when the tenant has suffered a drought, heavily falling farm prices, or some other emergency.

KEY POINTS IN UNIT 3

1. The number of farms operated by tenants has increased steadily in the United States during the last fifty years.
2. With the disappearance of free and cheap land, the average farmer found it difficult to buy land enough to support a family. Consequently, agriculture became more and more commercialized. The number of non-operating farm owners increased, and likewise the number of tenant farmers increased.
3. In 1935, farmers who were renting all or part of the land they cultivated constituted 52 per cent of the entire farm population of the United States.

4. There are a number of undesirable features connected with farm tenancy; among these are: (1) lack of incentive for farm tenants to improve the land or maintain the productivity of the farm they rent; (2) because of short-term tenancy, tenants often take losses in improvements they make on farm buildings, fences, or general upkeep; (3) rental contracts sometimes contain clauses which actually hinder soil conservation.

5. Since land-rental contracts oftentimes are verbal, some students of farm problems have suggested that a state law requiring 5-year written contracts might improve certain objectionable features of the farm-tenancy problem.

6. Education on the part of both landlords and tenants would no doubt improve some of the bad features of tenant farming.

Unit 4. Farm Real Estate Taxes

A. The Property Tax.
B. Administration of the Property Tax.
C. Farm Credit.
D. Land-Use Planning.
E. Farm Legislation.
F. Effect of Farm Program on Consumers.

A. The Property Tax. Property may consist of real or tangible things (land, buildings, and machinery; i.e., anything that is concrete) as well as intangible things such as stocks and bonds. Under a property tax, the intangible should be included. Unfortunately, however, they are not visible like real estate and often escape taxation if their owners do not declare them. If intangible property escapes taxation, as it does in a number of states, the burden falls on real estate. Such a tax will be heavy in the farming areas.

The Federal income tax, of course, goes to the National Government. Some states also have an income tax which is easily determined and not easy to escape. Barring the state having income taxes, the state governments have drawn most of their revenue from other sources than the property tax. However, the counties, towns, school distribution, and other units of local government depend chiefly on the property tax for revenue.

This tax has become more and more of a tax on real estate. It has tended to increase continually without regard to fluctuations in property value. Once having been raised, it seldom, if ever, recedes again. Moreover, local government is not always either organized or administered according to the best principles of government, consequently, the requirements for local government are needlessly high. Farm real-estate taxes reached a peak in the United States in 1929. The average tax per acre for the country as a whole was 58 cents. After that it declined, and for 1933 it was about 39 cents per acre. The important thing is not, however, the tax per acre, but the proportion that the taxes constitute of the gross farm income. Between 1932 and 1933, the gross farm income increased more than 20 per cent per acre, while the real estate tax per acre decreased between 10 and 15 per cent.

The base of property tax is value. The tax does not vary with the change in the income from the land from year to year. Whether or not there is an income in a given year, the tax nevertheless will be due. From the point of view of public revenue this is an advantage, but from the angle of the land owner it may mean bankruptcy if the conditions that have eliminated income, as for instance a severe depression, have continued for several years and thus made the owner a tax delinquent.

B. Administration of the Property Tax. Theoretically, good administration is assumed in connection with the property tax. As a matter of fact, there can be many criticisms made of the way in which it is handled. First, it is evident that fair assessment is necessary if the tax system is to work as contemplated; assessments are not, by any means, always fair. Studies show that many inequalities have been allowed to creep in. The causes for this may be: the lack of expert judgment on the part of the assessor, pressure to favor certain individuals or groups, inadequate information in the assessor's office, lack of provisions for classifying land, and shortage of means for careful work.

It has been found that there is a tendency to overvalue lands of low price in comparison with those of high price. Also, inequalities, that would not be so important if the property tax rates were low, become serious when the rates are high.

There should not be too much leniency in permitting taxes to go unpaid. In periods of depression there are often many tax delinquents. The idea that taxes are the last items that demand payment should not be permitted. It should be pointed out that taxes declined for some years after 1929. The average reduction from 1929 to 1934 was 37 per cent, which lessened the burden of fixed charges although it was offset in many states by sales taxes.

C. Farm Credit. Considerable benefit has come to agriculture through the Farm Credit Act of June 1933. The Farm Credit Administration brought together a number of existing Federal credit agencies and created a central administration which administers the provisions of the Farm Credit Act. This Act provides a complete credit service for agriculture. During the depression (1933) farm credit collapsed and 40 per cent of the banks in the country closed their doors. The agricultural regions were hardest hit; credit was almost unobtainable. The Farm Credit Administration reorganized the facilities of the Federal land bank system and began the refinancing of farm-mortgage debts.

In this process of financing, the existing land values were no true measure of the worth of the land, and so the administration appraised the farms on the basis of a normal value as nearly as could be established. The total farm debt in 1933 was nearly three times the total gross farm income of that year, and the farm debt threatened to ruin both the debtors and creditors. The newly created credit administration relieved both groups. During the first 15 months of the Farm Credit Administration more than 450,000 loans were made to farmers by the Federal Land Banks.

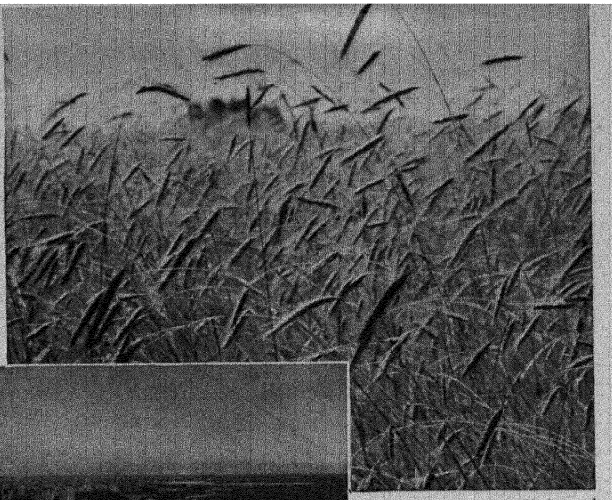
It is important to decide when a farmer should seek farm credit and when he should not. We are considering this from the point of view of soil maintenance. If the difference between farm expenses and farm income is abnormally low, but the condition that has brought this about is temporary, it is well to seek credit and pay off the credit as soon as possible. But if the margin between expenses and income is constantly low, it is unwise to seek credit, for the difficulty of repayment will mean an accumulated burden on the farmer. If credit becomes a heavy expense burden, it eventually works against conservation, but credit properly used can be helpful in promoting soil conservation.

There is a danger connected with a decrease in farm interest rates. This has to do with the valuation of the farm land. Values of farm lands normally vary with farm earnings; for example, if the rent on a piece of land is $1,000 and the ordinary rate of interest is 5 per cent, the $1,000 may be assumed to be 5 per cent, and the value of the land would be $20,000. This is called capitalizing income to find value and is the result of dividing the income by the rate of interest. If now the rate of interest is lowered to 4 per cent, the value of the land would be $25,000. This may easily mean that the value of the land is higher than it should be. Farmers would do well to raise their standards of living rather than capitalize their increased income into real estate prices when these prices are beyond a proper level.

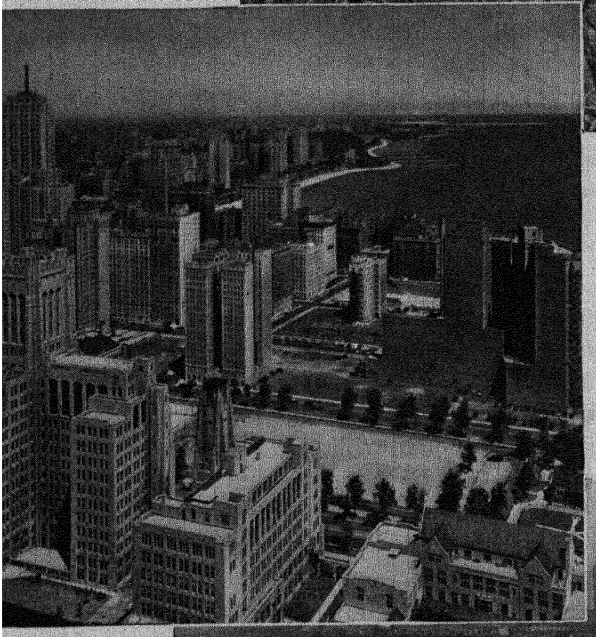
D. Land-Use Planning. The public planning of the use of land consists of two important steps: first, the determination of the uses that promote the general welfare; second, deciding on measures of public policy that will secure the adoption of such desirable uses. Therefore, two sets of decisions must be made by public agencies in land-use planning; first, to what uses particular bodies of land are to be assigned; second, the means that are to be used to encourage these uses. The first is based on crops that can best be grown or the kinds of animals that can be raised.

In areas where private owners decide the use of the land it is assumed that it will be used so that while it will be for benefit of the owner it will in no way work to the injury of the public. Where, then, private owners decide on the use, there is nothing the public can do but direct their efforts toward the prevention or the diagnosis and cure of maladjustments. While several programs for land-use planning have been worked out and several agencies have participated in such plans, there has been no adequate co-ordination and therefore no national plan has been worked out. Some programs are in the hands of the states, others are in the control of the National Government. This often means that there is no common goal and nothing by which to measure progress.

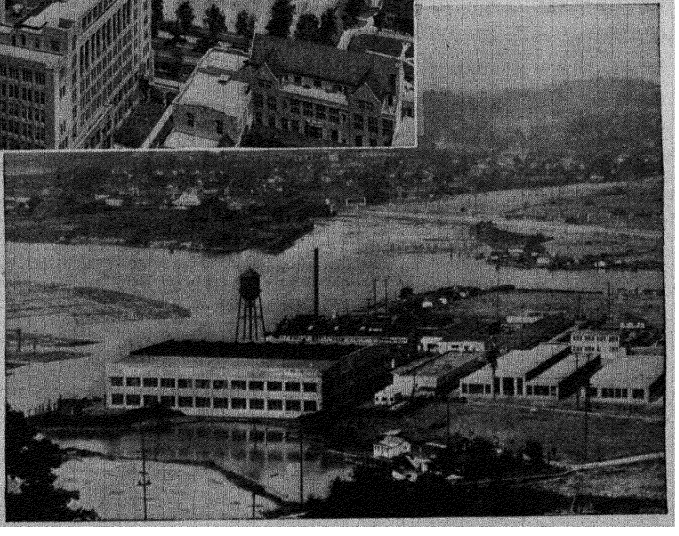
E. Farm Legislation. In an effort to solve the agricultural problem various pieces of legislation have been passed. The Agricultural Marketing Act was passed in 1929 in the administration of President Hoover. The Federal Farm Board was organized to carry



Underwood & Underwood



Uses of Land



out the provisions of this Act. The board was provided with one-half million dollars to buy the surpluses of wheat and cotton and in that way keep them off the market for a time in order to stabilize price. As a matter of fact there was a rise in price for a time, but this rise in price led to an increase in production on the part of the farmers, since no provision had been made to check such an increase. It is evident that this Act failed to solve the problems of the farmer.

The Farm Credit Act was passed in June, 1933, and the Farm Credit Administration was organized to administer the Act. One of its purposes was to provide means for the farmer to secure low-rate production and marketing credit. For this purpose many associations were organized to make loans at rates of interest that were from 2 to 3 per cent lower than private agencies would make. The Farm Credit Act of 1936 made additional provisions for easing the finances of the farmer. Criticisms of these acts have been made on the basis that they resulted in adding heavily to the farmer's already large debt.

During the depression, farm mortgages rose to the staggering amount of eight and one-half billion dollars. In 1933, the Emergency Farm Mortgage Act was passed. This provided that the Farm Credit Administration should reorganize the Federal Land Bank System and immediately set about the refinancing of farm mortgages. This Act was amended by the Farm Mortgage Refinancing Act of 1934 that authorized the organization of a corporation, the Federal Farm Mortgage Corporation, which is the financing organization back of the Federal Land Banks that administer the loans.

The Frazier-Lemke Act, passed in 1935 after the Act of 1934 had been declared unconstitutional, provided that if a farmer found that there was to be a foreclosure on his property, he could secure through the Supreme Court a postponement of the foreclosure for three years. During this time he could use his land by making the yearly payment of a fair rental. At the end of the three years he had to meet his obligation or the land would be sold.

The Commodity Credit Corporation was organized late in 1933. It provided that the farmer should hold a specified crop such as corn or cotton. On cotton he was paid a loan of 10 cents per

pound, provided he would promise to decrease his crop the following year; on corn he received a loan of 50 cents per bushel if he agreed to take part in the 1934 corp-reduction plan. The Commodity Credit Corporation then kept these crops on the farm under seal until the market conditions justified releasing them.

The Agricultural Adjustment Act was passed in 1933. The purpose of this Act was to establish such a relationship between the production and consumption of farm goods that the farmers' products would purchase as much as they did in a given base period. That base period was to be the average of the five years immediately preceding World War I. The administration of the measure resulted in offering the wheat farmers 30 cents per bushel subsidy if they would reduce their wheat plantings by 15 per cent of the average they had planted between 1930 and 1934.

The money to pay the farmer this subsidy was to be secured through a processing tax laid upon the manufacturer of flour, who paid to the Government 30 cents tax on every bushel of wheat he bought to manufacture into flour. Similar restrictions were placed on tobacco, corn, and cotton. In 1936 the law was declared unconstitutional. Matters were not progressing well and large surpluses of farm products were accumulating, so a new Agricultural Adjustment Act was passed in 1938, the purpose of which was to co-operate with the farmers so that their production of farm products would be adjusted to consumption in such a way that their incomes would be increased but that prices would not be a burden on the consuming public.

F. Effect of Farm Program on Consumers. To the charge that the farm program has worked injustice to consumers the Department of Agriculture makes the summarized reply that, judged by the farm-commodity price level, the farm programs have not caused consumers to suffer any injury. In 1935 farm commodities averaged 5 per cent above the prewar level, but the goods that farmers usually buy were 26 per cent above prewar prices. In 1936 consumers could buy their usual quantities of farm produce for one-fifth less money than they could in 1928. It is held that the fact that industrial pay rolls and average earnings per employed factory worker have increased since 1933 in practically the same proportion that farm

incomes have increased in evidence that farm recovery promotes industrial recovery.

Statistical studies made by the Department of Agriculture show that the shipments of industrial goods to rural areas have increased proportionately with the increase in rural incomes. Farm recovery got under way in 1933, earlier than industrial recovery. Urban industry benefited promptly. As a proof of this, in towns of less than 10,000 and on farms the sale of automobiles increased from 602,000 in 1933 to 833,000 in 1934, an increase of 38 per cent.

KEY POINTS IN UNIT 4

1. Taxable property includes both tangible and intangible property; that is, not only land and buildings (tangible) but also stocks and bonds (intangible).

2. All Federal taxes go to the National Government. In addition to Federal income taxes, some states also have income-tax laws. In the states which have no sales taxes or income-tax laws, the burden of taxation falls upon the land. Farm real-estate taxes reached a peak in 1929 in the United States.

3. The base of property tax is the value of the land. The tax does not vary in accordance with the income from the land from year to year. During times of adverse farm conditions, such as existed in the so-called *dust-bowl* region in 1933 and 1934, many land owners were unable to pay their taxes, which became delinquent. Eventually some of this land was sold for taxes and many farm families lost their homes.

4. In more recent years, taxes on farm land have fluctuated considerably, especially in certain sections of the country; but in many states where taxes have been lowered on land, a sales tax has been passed to provide revenue for public expenses.

5. During the 1933 depression, farm credit collapsed and 40 per cent of the banks of the country closed their doors. The facilities of the Federal Land Bank were reorganized and the Farm Credit Administration was created to handle farm loans. During the first fifteen months of its existence, the Farm Credit Administration made 450,000 loans to farmers.

6. However, farm loans have not always proved of benefit to either the farmer or the country as a whole. The total farm debt in 1933 was nearly three times the total gross farm income of that year, and this debt threatened to ruin both the debtors and creditors.

7. Two important factors in land-use planning are: determination of uses that will tend to promote the general welfare; and decisions as to the measures of public policy that will secure the adoption of these desirable uses.

8. Some farm programs are in the hands of the states, others are in the hands of the Federal Government. This means there is no unified plan and no common goal; therefore, there is no uniform method of measuring progress.

9. Numerous Federal laws have been passed since 1929 in an attempt to solve our farm problems. During the depression of 1933, farm mortgages in the United States rose to a total valuation of $8,500,000,000. As a means of relieving the farm situation, the Agricultural Adjustment Act was passed by Congress. In 1936, this Act was declared unconstitutional. A new Agricultural Adjustment Act was passed in 1938.

10. As defenders of the national farm program, members of the Department of Agriculture claim that while farmers have received higher prices for their products as a result of this legislation, consumers have not suffered any injury.

11. Farm recovery began in 1933. Urban industry was stimulated by this recovery because of the increased demand for manufactured products.

QUIZ QUESTIONS ON CHAPTER XI

1. How does agriculture compare with other industries in importance?

2. Is it correct to speak of agriculture as a competitive industry? Give reason for your answer.

3. Name five industries that depend directly upon agriculture for raw materials.

4. Name five agricultural products not used for food but which are important by-products used in the manufacture of other consumer goods.

5. What proportion of the national income goes to the farmer? Is this a just amount considering the percentage of farm population in comparison with the total population of the United States?

6. Name three ways in which farm land is often misused. Give three remedies for correcting this misuse of soil.

7. Has farm tenancy increased or decreased during the present century? Is this change an advantage or disadvantage to the country as a whole? Give reason for your answer.

8. Should stocks and bonds be reported as taxable property?

9. How can the tax burden of farm land be lessened? Have farm taxes increased or decreased since 1929?

10. Is the ability to secure a mortgage on his land always a benefit to a farmer?

11. What was the total valuation of farm mortgages in the United States in 1933? How did this debt compare with the total farm income for the same year? Was this a desirable situation? Give reason for your answer.

12. Name three laws passed by Congress since 1929 in an effort to relieve the farmers' distress.

13. Was the passing of the Agricultural Adjustment Act beneficial to the farmer? Is this Act still in effect?

14. State some of the benefits to both farmers and consumers, which members of the Department of Agriculture claim are due to this legislation.

Chapter XII

LABOR PROBLEMS

OBJECTIVE: Introduction, history, and solution of labor problems; their relation to large-scale industries and the public welfare.

PREVIEW: *A labor problem presents itself whenever disputes develop between employers, who buy the services of labor, and the laborers, who sell their services in the labor market. A labor problem sometimes has many phases which involve: inadequate wages, working hours, sanitary working conditions, methods of bargaining, security of employment, and unemployment compensation.*

Before the introduction of the factory system there were no such complicated labor problems as we have today. During the period of our history known as the hand-industries stage, *there were master workmen in every trade. These master workmen taught the essentials of their particular trades to apprentices; and in the course of time the apprentices, themselves, became master workmen, proficient in the knowledge of their tools and how to use them. When new inventions made possible greater production of goods by the use of machines, home industry gradually passed out of existence and the factory system came in to take its place. As large-scale industries increased in number, the number of workers likewise increased, and new problems began to present themselves to both employer and employee.*

When capital is invested in an industry, the return, or interest on the capital, must be sufficient to justify the investment; otherwise no new industries will be created, expansion will be discontinued in those industries already existing, and as a result there will be no demand for the services of labor. On the other hand, the worker has certain inalienable rights as a human being, which must be recognized by employers. Adjustment of disagreements between capital and labor have met with some degree of success when the management of an industry has opened the books and shown labor representatives the true financial condition of the business enterprise in which the workers are engaged. Threatened strikes have in some instances been averted by this procedure.

The first strike by labor in the United States occurred in Philadelphia, Pennsylvania, in 1776 when the printers struck for a wage of $6 per week.

Since that time, the history of labor unions presents a continuous panorama of parading strikers. In 1836, there were 52 labor unions in New York City, 58 in Philadelphia, and others in smaller cities. Recognizing the steadily increasing strength of these growing union organizations, business men decided it would be wise for them to organize also; consequently, in 1836 the first employers' association was organized.

Management Opens Books to Labor

As time passed, controversies between capital and labor finally reached a point where Congress was forced to take labor problems into consideration, and from time to time legislation has helped to adjust some of the differences between employers and employees. The courts have recognized the right of working men to organize for the purpose of collective bargaining. As industries have expanded, labor problems have grown in number until today these problems are numerous, intricate, and complicated, often requiring the best available administrative ability for mediation and settlement of disputes.

Stabilization of industry and unemployment compensation are among the various measures suggested for alleviating the ill effects of unemployment.

The holding of an International Labor Conference in New York City in the fall of 1941 is proof of the fact that labor problems have become a paramount issue of the present age. Thirty-five countries were represented at this conference, including representatives from North and South America, Europe, Asia, and Africa.

This chapter deals with a few of these problems, tells what they are, and points out some of the measures taken in an attempt to solve them.

Unit 1. Introducing Labor Problems

A. Labor Problem Defined.
B. Problems Illustrated.

A. Labor Problem Defined. The *labor problem* may be defined as lack of adjustment between the employers, who buy the services of labor, and the laborers, who sell their services in the labor market. As already indicated, labor is human effort, either physical

or intellectual, which aids in the process of production. It is characterized as being more or less continuous, becoming somewhat tiresome, and being undertaken for a compensation. Labor is one of the factors of production but, unlike land and capital, is embodied in a human being who must be fed, clothed, and sheltered if he is to be of service.

There are many phases of this problem, such as wages, hours, sanitary conditions, methods of bargaining, and security of employment, that call for adjustment.

B. Problems Illustrated. When it was found that the figures on the face of a clock could be rendered visible at night through the use of radium, women were hired to paint the figures. The radium was applied with small brushes which the women dampened in their mouths. It was found that this process would eventually result in the death of the women who did the work. They were not immediately protected, but finally employers were forced to find other methods of illuminating the faces of clocks.

The air in the plant where cement is made is thickly filled with fine dust that is injurious to the eyes and lungs. For some time men worked in these plants with no protection over the eyes, nose, and mouth. It was a labor problem to secure proper means of guarding against these bodily injuries.

Assume that an industry is paying its employees a fair wage in a given year, fair in the sense that a man can maintain a good standard of living at that wage. Now the price level begins to rise. The goods necessary for life and a small degree of comfort are priced higher, and therefore less can be bought with the wages received. In effect, wages, which represent the actual goods money will buy, have been reduced. This is a labor problem in the field of wages, one that is often adjusted with difficulty.

KEY POINTS IN UNIT 1

1. Labor is one of the factors of production, but unlike land and capital, labor involves human beings who, to be of service, must be fed, clothed, and sheltered.

2. *Labor*, then, is human effort, either physical or mental, which aids in the process of production.

3. The *labor problem* may be defined as the lack of adjustment between employers, who buy the service of labor, and the laborers, who sell their services in the labor market.

4. The labor problem has many phases, including: wages, hours, sanitation, bargaining methods, and employment security.

5. Health is the problem of vital importance to the laboring class. As an illustration of this, at one time women were employed to paint the dials of certain watches and clocks with radium. The radium not only injured the health of the women but eventually caused their death. Employers were compelled to find other methods of illuminating the faces of clocks and watches.

Unit 2. Historical Rise of Labor Problems

As pointed out in an earlier chapter, in the stage of society known as *hand industries* there was a master workman who knew his trade and possessed the few tools he needed. He took apprentices who wished to learn the craft. They stayed in the home of the master workman, receiving food and room and remaining sometimes for a period of years, depending on the type of craft to be learned.

After finishing their apprenticeship they became journeymen and eventually master craftsmen. The relations between the master craftsman and his apprentices were fixed largely by custom and personal agreements. However, with the advent of the series of inventions which started the Industrial Revolution about 1776, all this was changed. The great factories that developed were owned and run by those who had capital enough to build and equip them with machinery.

The hand industries could no longer compete with the power-run factories, and men who had been working in their homes found themselves working in the factories. The conditions of hours, wages, and sanitation in these early factories were seldom good. Factory conditions, even today, present a problem in all industrial countries. In this chapter a few of these problems are discussed, as well as the efforts that have been made to settle them. The discussion is con-

fined to those countries in which capitalism and large-scale industries have developed and where (except in the field of agriculture) few, if any, of the instruments or machines belong to those who do the work.

KEY POINTS IN UNIT 2

1. During the development and progress of civilization, society passed through a period known as the *hand-industries stage.*

2. As the name implies, hand industries meant the production of various hand-made articles in private homes. A master workman taught the essential knowledge of his particular craft to an apprentice who lived and worked in the home of his master.

3. In this premachine age, the tools required in a handicraft were owned by a master workman who handled the tools with expert dexterity.

4. While an apprentice was learning his trade, he received board and room in exchange for his services. An apprenticeship sometimes extended over a period of several years; its length usually was determined by the type of craft being learned.

5. On completing his apprenticeship, a young workman became a journeyman; when he had acquired sufficient skill in his particular craft, he became a master workman, taking his turn at teaching other apprentices the craft.

6. In the latter part of the eighteenth century the invention of many mechanical devices began to change the former methods of producing goods. The Industrial Revolution, which occurred about 1776, marked the beginning of the factory system.

7. The mechanized industries soon increased production to such an extent that it was impossible for the hand industries to compete with the machine-made goods. Consequently, as the hand industries gradually passed out of existence, they were replaced by capitalized large-scale industries.

8. With the definite establishment of capitalized industries, the skilled workmen no longer owned the tools with which they worked. Workers were provided with tools which were a part of the equipment of the mechanized industries.

9. Increasing expansion of large-scale industries due to continued invention of newer and better machines created labor problems which soon grew to alarming proportions. People of the working class were compelled to seek employment in the factories in order to earn a living. This new situation caused much friction between employers and employees.

10. Capital and labor disputes have finally become a problem of such vast proportions that the adjustment of these differences is now a major problem of our Government agencies. A few of these problems are dealt with in this chapter.

Unit 3. Those Interested in Labor Problems

There are at least three groups of people who are interested in problems that deal with the relationship of employees and employers; these are the employees, the employers, and the public. Some industries employ many men and produce articles essential to the welfare and comfort of many people. Either through a lockout on the part of the employers or a strike on the part of the employees, work may be stopped and production discontinued. The *public*, which desires this product, finds itself meeting discomfort or even distress. The word *public* is used here as it is used by C. R. Daugherty[1] meaning all of the people in a community except the employers and employees who are directly involved in the dispute. In peacetime, the majority of such disputes can be settled without too great discomfort to the public; in wartime, industrial difficulties may become serious problems to the Government.

KEY POINTS IN UNIT 3

1. Labor problems are of supreme importance to three groups of people—employees, employers, and the public.
2. As used here, the *public* includes all the people except the employees and the employers involved in a specific dispute; consequently, the entire population of the country is concerned when serious differences arise between capital and labor.
3. In time of peace, most labor and capital disputes are settled without too much discomfort to the public. In time of war, such difficulties may incur discomfort, even distress to many people, and create intricate situations with which the Government has to reckon.

[1]Daugherty, C. R., *Labor Problems in American Industry*, pp. 10 and 11.

Unit 4. The Wages of Labor

A. Forms of Payment.
B. Insecurity of Labor.

A. Forms of Payment. Wages are the share of the national ncome that goes to labor for services rendered. The theories of vages are discussed in the chapter on *Distribution.* Our object here s to survey more completely the ways in which wages are paid to he laborer. Wages may be paid on an hourly, daily, weekly, or nonthly basis. If paid on a yearly basis, they are usually called alaries, and payments are commonly made each month.

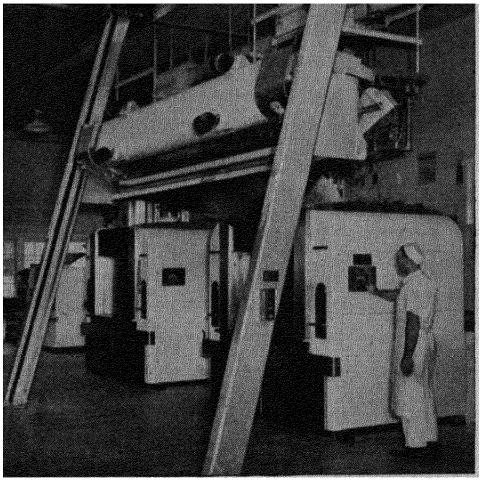
Wages must be distinguished from a wage rate. The wage rate by itself is not a measure of a laborer's earnings. D. Yoder[2] speaks of wage rates as the amount the laborer receives per unit of service. A wage rate may be 50 cents per hour, $3 per day, $20 per week, or $275 per month. But to get a clear idea of the actual wage a man receives, another element must be taken into consideration; that is, the period of employment. If the wage rate for a certain industry is 50 cents per hour and a man works 8 hours per day and 5 days per week, his actual wage is $20 per week. If he worked 10 hours per day and 6 days per week, his actual wage would be $30 per week. The wage is the amount the worker actually receives when he is paid.

There is still another angle in the matter of wage payments. Some industries are seasonal; that is, there are certain periods in the year when the industry will be carried on. This may be due to the weather or to the holiday season. Building, coal mining, and the demands for certain kinds of clothing are seasonal. In such industries one should consider the entire earnings in a year in order to have the real measure of a workman's actual earnings. Unlike a machine, labor must be fed, clothed, and sheltered during those parts of the year when he may have no work. One frequently hears that a miner earns $7 a day, but he does not work as many days in a year as most workers do.

[2]Yoder, D., *Labor Economics and Labor Problems*, p. 212.

Another method of payment is that used in piecework. Piecework is paid for according to the amount of work done and can be used only in certain industries—those in which the product can be measured by weight or numbers. This type of payment gives an advantage to speedy workers and leads to discontent among workmen when a fast worker is a pacemaker for the other workmen, who must attempt to keep up with him, sometimes working injury to themselves.

B. Insecurity of Labor. It is sometimes stated that the risks of industry are borne by the enterpriser, but some economists point out that the laborer also bears a risk. There are two possibilities of risk that he may face: unemployment and injury. With large-scale production, one of the aims of the enterpriser is to reduce unit costs as far as possible. This has led to efforts on the part of industry to substitute machinery for labor wherever possible. An instance is cited in which 2,000 men were working with a certain type of machine when it was found that, with the installation of new machinery, 1,800 men could be laid off, and the remaining 200 produced as much with the new machines as the former 2,000 with the old machines. This illustrates but one condition that may cause unemployment, and this is largely under the control of the employer.



Underwood & Underwood

Bread Mixers—Labor Saving Devices

It was pointed out that back of the demand for labor is a demand for the goods that labor can produce. If there is no demand for goods on the part of the consumers, there is no demand for the services of labor. Periods of business depression are times of great uncertainty and distress for labor.

Still another situation that may create great hardship for labor is the disappearance of some industries. For example, the industry of buggy and carriage making has been practically wiped out by the advent of the automobile. This industry required a considerable amount of skill, and men who had spent many years at this work were compelled, with great effort and considerable expense, to learn other work.

Another cause of unemployment may be the uniting of two or more companies into one. This may easily result in the elimination of a considerable number of men where duplication of jobs exists.

Technological improvements are closely associated with the displacement of men by machinery, discussed in a preceding paragraph. For example, the setting of type was for generations a craft that employed many men. Then the linotype machine was invented, and for a time large numbers of the typesetters found themselves out of work. The technological changes in machines that fill cigarettes and put them into packages, and changes in machines for bottling purposes are minor instances in which improvement in machinery has worked toward the displacement of man power.

The second risk that is faced by labor, as mentioned before, is the risk of injury while engaged in the performance of one's work. Formerly the machinery in the rolling mills of the steel companies was oiled while the machinery was in motion. This caused the death of many men who became confused in stepping from side to side and as a result were struck by red hot ingots and killed. One might list scores of such dangers that face men who are working in highly mechanized plants.

In recent years, since states have passed workmen's compensation laws compelling the employer to pay the employee who has been injured, or his family if he is killed, more effort has been expended by the employers to put safety guards on their machinery and as far as possible eliminate these dangers.

KEY POINTS IN UNIT 4

1. The share of the national income received by labor, in payment for services, is known as *wages*, and is computed on an hourly, daily, weekly, or monthly basis. When computed on a yearly basis, remuneration for services is commonly called a *salary*, even when paid monthly.

2. *Wages* must not be confused with a *wage rate.* The *wage rate* is the amount a laborer receives per unit of service; while the amount actually received by the worker is his *wages.*

3. Some industries are seasonal; that is, the period of time during which the service of labor is needed is limited to a few weeks or months. These limited periods of employment are due to the nature of the industry; for example, harvesting of grain and fruit crops, or selling merchandise during the holiday season.

4. When determining the wage rate for a seasonal worker, his possible earnings for the entire year must be taken into account. Idle machines require little attention, but unemployed men must be fed, clothed, and sheltered.

5. In industries where the product can be measured by weight or number, wage rates are sometimes computed on a piece-work basis. This type of payment gives an advantage to the speedy worker and tends to promote discontent among the slower workers, especially when the production of the speedy worker is used as a basis for computing the wage rate.

6. In addition to promoting discontent among slow workers, the piecework method involves an element of danger due to the speeding up of machines, which may cause injury to the slow worker.

7. It is sometimes argued that the enterpriser bears the risk of the industry. However, the worker also bears a certain degree of risk because of insecurity of employment and danger of injury. An instance has been cited where the addition of machinery in an industry resulted in the laying off of 1,800 men out of a total of 2,000 previously employed.

8. Back of the demand for labor is the demand for goods. When there is no demand for consumer goods, there is no demand for the service of labor.

9. Unemployment may be due to any of a number of different circumstances. Sometimes the merging of two or more allied industries results in many employees being laid off. Technological improvements are closely associated with the displacement of men by machines.

10. For many generations after the invention of printing, typesetting was a craft that employed a large number of men. When the linotype machine was invented, hundreds of typesetters, highly skilled in their trade, were thrown out of employment.

11. Danger from injury is an ever-present risk borne by labor. Scores of instances could be given as proof of this statement. However, in recent years, some of the dangers have been eliminated by safety guards and devices.

Unit 5. Labor Unions

A. Why Labor Unions Arose.
B. Labor Activities After the Civil War.
C. Outstanding Types of Labor Unions.

A. Why Labor Unions Arose. The historical rise of labor problems has been discussed and it was pointed out that as soon as men and women began to work in the great factories after the beginning of the Industrial Revolution (1776), difficulties involving wages, hours, and sanitary conditions began to appear. It was found that for each man to try to bargain and secure improvements was practically impossible, and that his bargaining power was too weak when pitted against that of the employer, especially when there were many men waiting to take over the jobs of those already employed.

The first strike[3] of labor in the United States was in 1776 when the printers in Philadelphia, Pennsylvania, went on strike for a wage of $6 per week. From that time until the Civil War there were numerous labor strikes which involved not only printers but also bootmakers, shoemakers, hatters, weavers, cabinetmakers, and also many factory workers. Labor organizations grew until in 1836 there were 52 unions in New York City, 58 in Philadelphia, and considerable numbers in other cities.

In this same year (1836) the employers' associations appeared. The employers had found themselves meeting continuously greater aggressiveness on the part of the labor unions and finally went to the courts and secured prosecutions and convictions for conspiracy. This was a blow to the unions, but in 1842 in the Supreme Judicial Court of Massachusetts a decision involving labor was handed down in which Chief Justice Shaw stated that trade unions are legal organizations and that without positive evidence it can never be assumed that men have associated themselves together for evil purposes. It should be borne in mind that these early organizations

[3]Perlman, Selig, *A History of Trade Unionism in the United States.*

before the Civil War were practically all local affairs; even the few national organizations that were organized in the late fifties had little importance.

Before proceeding with the development of labor organizations after the Civil War it would be well to get clearly in mind exactly what is meant by a labor union. It means bringing together into one organization all the men working either in one craft or in one industry to the end that they will bargain collectively and agree to a joint contract between themselves and their employer, this contract covering questions of wages, hours, and conditions of work.

B. Labor Activities After the Civil War. The Civil-War period was marked by a depression at its beginning, but by 1863 business began to expand, and at the same time prices rose due to the heavy issue of paper money. This brought about an active movement in labor to organize, not only into local unions, but also into trade assemblies and then into national organizations. These developed in 1864 and 1865. At the same time the employers' associations again came into active existence. The National Labor Union held its first convention in 1866. It emphasized the passage of an eight-hour law. In the following year eight-hour laws were passed in many states.

It is not possible, in a general economics text, to trace the development of the Knights of Labor or even to indicate its various activities. It may be said that originally the organization had intended to foster a co-operative attitude but that it finally also found itself engaging in strikes, such as the telegraphers' strike of 1883. But the Knights of Labor held to one of their original principles, that skilled workmen should use their strength, which came from organization, to help the conditions of the workers who were unskilled and who had as yet no bargaining power to aid themselves. The Knights of Labor stood for one big union; they wished to include all labor in one union. This position was in strong contrast with the craft unions that were developing and whose purpose was to secure better conditions for their own craft alone. While the Knights of Labor recognized that technological changes would work toward breaking down the distinctions between crafts, the craft unions themselves seem to have overlooked this point entirely

at that time and, giving no attention to the long-run view, thought of the present only.[4]

C. Outstanding Types of Labor Unions. The men and women members of the craft unions are usually those who require considerable time for training to fit them for the particular craft they enter; they are to a certain extent the upper class of labor and are inclined to be conservative in their attitude both in industrial and political matters.

The purpose of the craft union has been to protect and strengthen those engaged in the same craft. They have shown no interest in the unskilled workers, and have made no effort to assist them. With few exceptions, there is no expression of desire on the part of the craft unions to make any comprehensive change in the economic or political structure. They seem to stand for the preservation of capitalism and the relation of employee to employer almost as it exists at present, however, they desire certain changes such as better working conditions and an increase in the portion of the national income that goes to labor. The unions belonging to the American Federation of Labor are of this type, reformist in character, usually not at all revolutionary. Besides the purposes already mentioned, the craft unions are organized to facilitate collective bargaining and to promote various activities of a co-operative and educational character. They are not class conscious but are craft conscious. They aid in forming new unions and are active in the representation of their organizations politically. They are the oldest form of labor organization.

As indicated in its name, the American Federation of Labor is a federation, loose in organization, and composed of a number of bodies. It includes national and international unions, local trade and federal labor unions, state federations, and city central bodies. It was organized in 1886 by the union of the Federation of Organized Trades and Labor Unions and the Independent Trade Unions. It had a membership of more than 5,000,000 in 1942. The unions which united to form the American Federation of Labor had been

[4]Labor organization in the United States and Europe has been dealt with by Dr. Miriam Simons Leuck in her doctor's thesis on "An Experiment in Democratic Diplomacy."

former rivals of the Knights of Labor in both purpose and form of organization.

The Knights of Labor first appeared in 1869 and were important as an early step in the development of labor organizations. With the organization of the American Federation of Labor, the Knights of Labor began to decline and ceased to be important about 1893.

Since the American Federation of Labor is made up of independent craft unions, or autonomous groups whose membership is voluntary, few restrictions are imposed on the member bodies. The most important organizations in the American Federation of Labor are the national and international unions. These organizations are the ones that discipline the groups constituting their membership. They grant the charters and have the main part in the calling of strikes.

The labor organizations known as the Industrial Unions are represented by the Congress of Industrial Organization (C.I.O.).[5] While a craft union includes only those men and women who are working in one particular and rather limited field, the industrial union is much wider and includes all those working in a particular industry. It should be especially emphasized that this includes not only the skilled men but the unskilled as well. It has been contended that the craft union is an outgrown organization; that it belongs to a form of industry that existed in the nineteenth century and today it no longer meets labor's requirements.

If the General Motors workers were organized on a craft basis, a dozen or more different unions would be represented; as it is, one big union includes all the workers in the entire industry. As a result, when the committee representing the union in that industry bargains with the representatives of the employers, there is but one contract (of many parts to be sure) to be drawn up and not several contracts as in the case of an industry organized on the craft basis.

[5]Official figures as to trade union membership are not easy to obtain. In 1937 the A.F. of L. claimed a membership of 3,718,000, which figure has not been challenged. In 1941, membership figures were reported by both the A.F. of L. and the C.I.O. at their annual conventions, but the membership number reported by each organization was challenged by the other. Those figures were: A.F.ofL., 4,569,056; C.I.O., 5,000,000. An organization drive made in each group has undoubtedly brought in new members since that time, and of course there have been some losses in membership.

United States Steel is also organized on an industrial basis, which the employees say is the better form since it means that one committee of workmen meets the employers. Still another industrial union is the United Mine Workers which is made up of men engaged in many types of work, all having contracts with the employers made by their one committee representing all the men in the industry. According to Selig Perlman,[6] industrial unionism means getting rid of all the jurisdictional troubles experienced in the craft unions and bringing into the union the weakest part of labor, those who have no craft.

There is another group of labor organizations that must be mentioned, viz., the Railway Brotherhoods. Dating back to the sixties, seventies, and eighties, the four main brotherhoods are: the Order of Railway Conductors, the Brotherhood of Locomotive Engineers, the Brotherhood of Locomotive Firemen, and the Brotherhood of Railroad Trainmen. These organizations, with a membership of approximately 450,000, co-operate closely with each other and are conservative in their attitude. They have no connection with either the American Federation of Labor or with the Congress of Industrial Organization. Besides their wage and hour bargaining, these unions lay much emphasis on benefits and insurance.

The Railway Brotherhoods feel their power decidedly. They occupy an important place in industry and could work great injury to society by going on strike. Further, they are powerful because they hold important positions that require much training and entail a great deal of responsibility. The brotherhoods call strikes only as a last resort and after they have given the subject much consideration. Because of their unique power they feel that uniting with other unions would be of no special benefit to them.

The organization of the workers in the railway industry has been almost entirely on the craft basis. There are at least 23 unions in all. In addition to the four powerful brotherhoods already discussed, there are, among others, the Brotherhood of Railway Carmen, the Order of Railroad Telegraphers, the Brotherhood of Maintenance of Way Employees, the Switchmen's Union of North America, the Brotherhood of Railway Clerks, the Order of Sleeping-Car Con-

[6]Perlman, S., *History of Trade Unionism in the United States*, p. 217.

ductors, the Brotherhood of Railroad Signalmen, the American Train Dispatchers' Association, and the Railroad Yardmasters of America. The majority of these unions, outside the "Big Four" Brotherhoods, are members of the American Federation of Labor.

The so-called *company union* cannot be ignored. Many efforts have been made by various companies to organize unions within their own plants, composed of their own employees only. In many cases the company has sought to bargain only with the representative from such an organization. This has met with serious opposition on the part of the workmen, or on the part of organized unions who claimed that such company unions were organized, financed, and entirely dominated by the company, and that the representative who nominally bargained with the company was merely a representative of the company bargaining with another representative of the company, and thus the workmen were not truly represented. The companies, on the other hand, maintained that in dealing with unions which are not company unions, they would bargain with officers of the union who were not their employees.

The Watson-Parker Act of 1926 explicitly stated the right of the men working for railways engaged in interstate business to bargain with the railway through their own independently chosen representatives. This act which affects interstate railways was upheld by the Supreme Court. To repeat, this law provides that workmen on interstate railways can have their own independent unions and the company must recognize this right and bargain with them. The laws bearing on this subject are taken up more fully later on in this text. It is sufficient to state here that, except in the case of the railroads, the right of a company to organize such a union was considered entirely legal until 1933.

KEY POINTS IN UNIT 5

1. Beginning with the Industrial Revolution a steadily increasing number of men and women secured employment in large factories.
2. As the number of workers in factories increased, problems concerning wages, hours, and unsanitary working conditions likewise increased.
3. The factory employees soon found that it was absolutely futile for any one workman to attempt to improve working conditions by bargaining with his employer.

4. Since the supply of labor available was greater than the demand for labor's services, the balance of bargaining power was in favor of the employers.

5. Great numbers of industrial workers finally began to realize the ineffectiveness of one employee's bargaining power when pitted against the firmly entrenched and, more or less, sovereign power of an employer.

6. With this realization of a workman's weakness when bargaining alone, the idea that employees could increase their bargaining strength by forming organized labor unions took root in the minds of many dissatisfied factory workers.

7. Following the printers' strike in Philadelphia in 1776, there were numerous labor strikes in the United States between that time and the outbreak of the Civil War.

8. Labor unions had grown in number until in 1836 there were more than fifty unions in New York City and many others in smaller cities.

9. It then became apparent to many business men that unless something was done to stem the rising tide of labor's strength, the balance of bargaining power would soon be in favor of labor instead of the enterpriser. Consequently, in 1836 employers' associations were organized to offset labor's growing power.

10. One of the first blows struck at the aggressiveness of labor unions was by employers who through court action secured the prosecution and conviction of certain labor leaders on the grounds of conspiracy.

11. A *labor union* is any labor organization created for the purpose of advancing the interests of its members.

12. After the depression which followed the Civil War, labor unions again became active. The National Labor Union held its first convention in 1866. Members of the convention advocated passage of an eight-hour law. The following year many states passed a law limiting the working day to eight hours.

13. As time passed and industrial plants increased in number and expanded in size in the United States, various types of labor unions were organized. Prominent among these in early days were the Knights of Labor, who stood for one big union.

14. In more recent years came the American Federation of Labor, the independent railroad brotherhoods and, in 1937, the C.I.O. (Congress of Industrial Organization).

15. The combined membership of these three unions, in 1937, was approximately 7,000,000 workers. This number increased until in 1942 the total membership was approximately 12,000,000.

Unit 6. Labor Legislation

A. Nature of the Labor Contract.
B. Individual and Collective Bargaining.
C. Laws and Court Decisions.

A. Nature of the Labor Contract. One of the characteristics of the economic order of the society in which we are living is the freedom of an individual to make contracts and to expect that such contracts will be enforced. The major portion of the contracts made are between individuals or companies for the exchange of tangible property, such as a stock of men's clothes, or intangible property, such as stocks or bonds. Property contracts form one of the most important bases of present-day economic society, and the enforcing of contracts plays a considerable part in the activities of courts. Contracts usually represent a sale, often involving a period of time before the property is delivered to the buyer.

In recent years a contract known as the *labor contract* has come into existence. Under slavery in the United States, the slave himself was a piece of property; he did not own himself; someone else owned him and the selling of a slave took place between two other persons. Slavery was abolished by the Thirteenth Amendment in 1865. With the coming of free labor a new situation arose. The free laborer owns himself and he sells his own service for a definite period of time. His contract is unlike any other in that a human being is involved, and the contents of the contract may have much to do with the welfare and even the life of the laborer who makes the contract. These contracts must involve both rights and duties. This is a stage of free contract, which means that the workman may leave his employer at any time and for no reason, since he is a free human being.

As industry developed, the situation became considerably involved. A man may be free to make a contract to sell his services, but it is not always possible for him to take a job or leave it as he wishes, since he must live, and work is not always easy to secure when many seek the same jobs. More than this, we have already

seen that the price set in any bargain depends on the relative strength of the bargainers. With one lone workman bargaining with a powerful employer and having to compete with many other workmen, the individual workman is much weaker than the employer in the bargaining process.

It may be pointed out that the violation of a property contract or a labor contract is grounds for a damage suit. However, if a laborer were forced to work involuntarily, it would be a violation of the Thirteenth Amendment which forbade, along with slavery, involuntary servitude.

B. Individual and Collective Bargaining. It should be pointed out at the beginning that in labor relations there is comparatively little individual bargaining. Industry, organized as it is today, sets the price which it will pay for each type of labor. The laborer offers himself, is informed of the wage that he will be paid, and can make his choice as to whether or not he will accept the wage. Sometimes when bargaining for goods takes place, there is a process of haggling or dickering. But little of such bargaining takes place today in buying the service of labor. The employer, if there is no labor union, can set the wage scale since he controls the number and type of jobs and because he has a wider knowledge of the situation of supply and demand for labor and, finally, because the competition among employers for laborers is not so great as the competition among laborers to secure jobs. However, do not make the mistake of believing that the competition among employers has no effect on labor's wages. It does. This is especially true of small employers, both in manufacturing and in the distribution fields such as grocery stores, meat markets, and most other retailers. Frequently the sharp competition they must meet and the narrowness of their profits mean a low wage offered to their employees. There are economists who claim that the load of free competition rests heavily on labor, and that monopolistic industries bring better conditions to their employees than do competitive industries where the struggle for profit is continuous.

It was not long after the beginning of the Industrial Revolution that working men began to recognize that they would have to unite in organizations for bargaining purposes if they were to have any

real influence in determining the wages, hours and conditions under which they were to work. Gradually, as large production has developed and mass output has become the rule, the need for labor organization and collective bargaining has been more keenly felt. Collective *bargaining* means that the workmen employed in an industry organize and elect one or more of their number to represent them in any bargaining that takes place with their employer. If, as in the case of the industrial unions, a whole industry is organized, the representatives of the union present the wages, hours, and working conditions that have been approved by the union members. In the discussions they hold with the representatives of the employers, the union representatives keep in constant contact with the members of the organization so that any changes may be approved by the membership. Through such collective bargaining, labor has been able to secure a larger amount of the national income.

The right of labor to organize and bargain collectively has been the cause of much conflict between labor and employers who have, in their turn, organized into employers' associations. These conflicts have been frequently brought into court, and statutes have been passed bearing on various phases of these conflicts. The legal right of workers to join unions and to bargain collectively was established by the Wagner Labor Relations Act, passed in 1935. The same law restricted the company unions.

C. Laws and Court Decisions. It is not possible to trace the development of labor legislation in England in this book, but in the discussion of such laws in the United States comparisons are made from time to time with English situations.

In the early days of unions in the United States the charge of conspiracy was frequently brought against a union organization if a strike had been called to enforce some condition agreed to by the employer or to secure the employer's agreement to some new wage or hour conditions. In Britain, also, conspiracy was an early charge for which unions were prosecuted. In 1842 *conspiracy* was defined in the United States as a combination of two or more persons seeking by some concerted action to accomplish some criminal or unlawful purpose or seeking by criminal or unlawful means to accomplish some purpose not in itself criminal or unlawful. Or conspiracy may

be defined as agreement, manifesting itself in words or deeds, by which two or more persons confederate to do an unlawful act or to use unlawful means to do an act which is lawful confederacy.

In case of conviction, criminal conspiracy, as just defined, was punishable by either fine or imprisonment or both. There was also the so-called *civil conspiracy* which was usually interpreted to mean an injury to private interests and which added a liability for damages to the punishment for criminal conspiracy. By 1875, England had done away with the charge of criminal conspiracy, and in 1906 abolished the law of civil conspiracy. Therefore, in England labor organizations are entirely free from any conspiracy charges, criminal or civil, but in the United States labor may still be held for conspiracy.

The Sherman Antitrust Act was passed in 1890. Three sections of the Sherman Act are to be considered. The first section makes it a misdemeanor to engage in any conspiracy of contract to restrain trade. The second section makes it a misdemeanor, punishable by fine or imprisonment, to combine or conspire to monopolize any part of the trade or commerce between states. The seventh section provides triple damages to be paid to any person or corporation that can prove it has been injured by any person or persons who may have violated one or both of sections one and two.

This law, then, was for the purpose of protecting trade and commerce against unlawful restraints and monopolies. When this Act was passed, there was at first no thought on the part of labor that it could be made to apply to labor, but in 1908, in the Danbury Hatters' case, the court awarded a huge sum to the company on the ground that it had been injured by an interstate boycott of its goods, organized by the unions. This was an application of the triple damages in Section 7 of the Act and an interpretation of the boycott as a conspiracy in restraint of trade on the part of the union.

With this decision, the unions were thoroughly aroused to the difficulties they faced. They had experienced the use of the injunction in 1894 in the Pullman strike and found how serious its use against them could be. An *injunction* is an order issued by the court forbidding an individual or a group of individuals to perform a certain specified act. This had been used in the American Railway

Union strike, or Debs' strike, of 1894 against the railway unions to stop the strike. The use of the injunction by the employers had increased as the years went on and had checked many of the unions' activities. They had experienced the pressure brought by the conspiracy doctrine and now in 1908, with the Danbury Hatters' decision, they found themselves facing a new danger in the efforts of employers to use the Sherman Antitrust Act against them. These were the steps that aroused the efforts of the unions to secure the passage of the Clayton Act in 1914. Sections 6 and 20 of this Act, which are quoted in full, seemed to assure the rights that labor wished.

Section 6. That the labor of a human being is not a commodity or article of commerce. Nothing contained in the anti-trust laws shall be construed to forbid the existence and operation of labor, agricultural, or horticultural organizations, instituted for the purposes of mutual help, and not having capital stock or conducted for profit, or to forbid or restrain individual members of such organizations from lawfully carrying out the legitimate objects thereof; nor shall such organizations, or the members thereof, be held or construed to be illegal combinations or conspiracies in restraint of trade, under the anti-trust laws.

This section of the law seemed to be a certain protection to labor against the Sherman Act since it declared that labor is not a commodity and the Sherman Act was assumed to deal with commodities. It will be recalled that commodities are concrete material things, and services (which are all that labor brings to the market to sell) are immaterial. Section 20 of the Clayton Act, which follows, deals with injunctions.

That no restraining order or injunction shall be granted by any court of the United States, or a judge or the judges thereof, in any case between an employer and employees, or between employers and employees, or between employees, or between persons employed and persons seeking employment, involving, or growing out of, a dispute concerning terms or conditions of employment, unless necessary to prevent irreparable injury to property, or to a property right, of the party making the application, for which injury there is no adequate remedy at law, and such property rights must be described with particularity in the application, which must be in writing and sworn to by the applicant or his agent or attorney.

Commons and Andrews,[7] in their book *Principles of Labor Legislation*, hold that neither of these sections in the Clayton Act brought any great relief to labor, that labor was charged under the Antitrust

[7]Commons, J. R., and Andrews, J. B., *Principles of Labor Legislation*, 1927.

Act, and found itself facing injunctions just about as much after the passage of the Act as before. Much depended on the court decisions.

Following are discussions of certain outstanding matters on which legislation has been passed. First, the yellow-dog contract: a *yellow-dog contract* is one that an employee makes with the employer, stating that he will not become a member of a union while he is working for that employer. Such contracts had serious effects on the unions; they not only made it more difficult for unions to secure members, but they enabled the employers to build up employers' unions. A number of states passed laws against the yellow-dog contract, but the United States Supreme Court (1915) declared these unconstitutional, although it allowed the passing of a Federal act that was intended to stop the railways from discharging men if they became members of unions.

Probably one of the most widely known cases under the yellow-dog contract was that of *Coppage* v. *Kansas* in 1915 in which the United States Supreme Court held the anti-yellow-dog statute of the state of Kansas unconstitutional. This subject has been fought out in many state legislatures and in many cases in court. In 1929 a way was found by which labor might be free from the effects of the yellow-dog contract; a law was passed in Wisconsin that made such contracts unenforceable. Similar laws were passed by several other state legislatures, and in 1932 the Norris-La Guardia Act contained a section to the same effect.

Today, in every state in the United States the right of labor to organize and bargain collectively has been recognized, but a large part of the American public (perhaps not yet adequately informed on the subject) does not accept collective bargaining as the only method that can be used in the great industries that today dominate our American economic life. This is especially true of those living in rural communities to whom the problems of the industrial worker are largely meaningless due to the fact that they do not understand the industrial workingman's relation to industry. This raises the question as to how far the people of a country are educated in the matters that make up public policy. Perhaps there are few places that the public attitude toward organized labor is better stated than in the Norris-La Guardia Act, a portion of which follows:

Whereas, under prevailing economic conditions, developed with the aid of government authority for owners of property to organize in the corporate and other forms of ownership association the individual unorganized worker is commonly helpless to exercise actual liberty of contract and to protect his freedom of labor, and thereby obtain acceptable terms and conditions of employment, wherefore, although he should be free to decline to associate with his fellows, it is necessary that he have full freedom of association, self-organization, and designation of representatives of his own choosing to negotiate the terms and conditions of his employment, and that he shall be free from the interference, restraint, or coercion of employers of labor, or their agents, in the designation of such representatives or in self-organization or in other concerted activities for the purpose of collective bargaining or other mutual aid or protection.

Passing over Section 7a of the National Industrial Recovery Act which was passed in 1933 and declared unconstitutional in 1935, the National Labor Relations Act was passed in 1935, two months after the NIRA was declared unconstitutional. It is not possible to take up all of the measures in this Act, but two or three may be mentioned. (1) It strengthened the position that labor had in relation to the yellow-dog contract by making it an unfair labor practice to discriminate against a laborer on account of his membership in a union. (The yellow-dog contract was outlawed by the Wagner Labor Relations Act.) (2) Employers must not dominate labor organizations nor give them financial support. (3) The employers must not interfere with the laborers' right of self organization.

The National Labor Relations Act incorporated practically all the essential points that were included in Section 7a of the National Industrial Recovery Act. It was upheld by the United States Supreme Court in 1937 and it may be noted that the Act is administered by the National Labor Relations Board.

Before taking up those laws that deal with wages and hours, it is well to discuss what is meant by *police power*. This has nothing to do with the police as usually understood—policemen and police station. It refers to the police power of the state, which may be defined as the power that belongs to the American state to abridge property or liberty without compensation or consent. Police power belongs to state governments and embodies the theory that the state has the right to enact protective legislation, that is, legislation that increases the welfare of its citizens such as, for example, laws bearing on health and morals as well as laws to equalize bargaining power.

A large number of laws may be enacted under the police power and, having once been passed, these will in all probability come under the scrutiny of the courts if cases are brought under them. It must be recalled that the Federal Government has passed less legislation of the type described affecting labor than the states have; under police power such legislation belongs to the states as it was not given specifically to the Federal Government. However, cases coming up first in state courts under the state labor laws may be appealed to the Supreme Court of the United States which has an opportunity to rule on the constitutionality of the state legislation.

Police power has been invoked in the United States to secure some equality of power for labor in making its contracts with the employer. This has been considered as a matter that affects public welfare and laws thus strengthening the bargaining power of men, women, and children have been passed, sometimes being sustained by the courts, sometimes being declared unconstitutional. The Fair Labor Standards Act, commonly known as the *Wages and Hours Law*, was passed in 1938 and upheld by court action in 1941–1942. The purpose of this Act was to establish minimum wages and maximum hours for workers.

One case dealing with hours was *Holden* v. *Hardy* which came up in 1898. Utah passed an eight-hour law for men engaged in working in the mines. The *Holden* v. *Hardy* case brought the test of the constitutionality of this law into court. The United States Supreme Court upheld the law. First, the court judged that the law was not class legislation as had been charged concerning this and other laws intended to protect labor. The court decision in this case held that the workingmen did not have equal bargaining power with the employers and that the law was for the purpose of securing an equality in such bargaining power. This decision therefore settled the question of whether labor legislation enacted to protect the weaker bargainer against the stronger is to be considered class legislation.

The second point dealt with in this case was to determine whether the dangers to health for men who worked all day underground without sunlight and subjected to dangerous gases were sufficient to justify the passing of laws to protect them by limiting

the number of hours they should work. The decision held that because men had worked in other occupations more than eight hours and not been injured was no basis for judging that eight hours of work in a mine would not be injurious to health, and that those engaged in such dangerous occupations might be considered as in need of protection under the police power of the state.

Other decisions have been made about men and women working in various occupations and the hours in these employments, but the above case is illustrative of the reasoning used in such labor legislation.

KEY POINTS IN UNIT 6

1. Today, one of the characteristics of the economic order of our society is the freedom of an individual to make contracts and to expect the enforcement of such contracts. In recent years, as a result of disputes between capital and labor, the so-called *labor contract* has evolved.

2. In a social system where slavery exists, the slave is regarded as a piece of property. He does not own himself. Someone else owns him, and all bargaining for the transfer of ownership takes place between two other persons without any recognition of the personal rights of the slave.

3. The passage of the Thirteenth Amendment, in 1865, abolished slavery in the United States. With the freeing of great numbers of men and women who were not trained to depend upon themselves, new economic conditions confronted our nation.

4. The welfare of the nation was at stake. New adjustments were necessary in order to bring order out of chaos; consequently, agreements made between employers and workmen were recognized as *labor contracts.*

5. A labor contract is unlike any other kind of contract, since it involves the life and welfare of human beings who make the contract. These contracts are intended to protect the rights of labor, yet the contract must also recognize the duties of the employee to his employer who pays for the services of his labor.

6. In making a labor contract in early days, both the employer and the employee recognized the right of a workman to quit his job at any time for no reason except his own personal choice in the matter.

7. As plants increased in size and number, the labor situation became more and more complicated. Although a man might be free to sell his service in the labor market to any employer who wanted his services, it was not always easy for a workman to make a choice; since he was compelled to earn a living, he had to work where employment was available.

8. Today, there is not much opportunity for individual bargaining on the part of labor; however, on the other hand, there is often more competition between employers than the average person realizes.

9. It is true that enterprisers often set a wage rate on a particular type of work. A workman, then, has only one choice in the matter; he may work at the price named or refuse to work, which may mean he will be without support for himself and family.

10. The right of workmen to organize for the purpose of collective bargaining has been recognized by the courts and by industrial managers. In *collective bargaining*, employees of an industry elect certain members to represent them in bargaining with their employer. The purpose of collective bargaining is to equalize the bargaining power between employee and employer.

11. Conflicts between capital and labor have often resulted in court action. Statutes have been passed from time to time in an attempt to adjust these differences.

12. The Sherman Antitrust Act of 1890 resulted in an injunction against labor unions on the ground of restraint of interstate trade by boycott. The Danbury Hatters' case, of 1908, was a test case.

13. The unions, realizing their danger from injunctions, secured the passage of the Clayton Act in 1914. The purpose of this law was the protection of unions. Other laws have been passed more recently, prominent among these was the one forbidding yellow-dog contracts.

14. Between 1930 and 1940, labor unions gained in power through the passing of various laws; among these were: the Norris-LaGuardia Act, the National Labor Relations (Wagner-Connery) Act, and the Fair Labor Standards Act, commonly called the *Wages and Hours Law*.

15. The yellow-dog contract was outlawed by the Norris-LaGuardia Act and the Wagner Act. The Wagner Act recognized the right of labor unions to bargain collectively and restricted company unions. The Wages and Hours Law established minimum wages and maximum hours for workers.

Unit 7. Unemployment Defined and Remedies Suggested

Unemployment is the state that exists when persons who are willing and able to work cannot make contracts. There may be the so-called *unemployables*, including those who are sick, blind, or for any other reason unable to work. But the term *unemployed* is used here to refer only to those who are able to work.

Many of the causes of unemployment have already been discussed and following are some of the remedies. First, may be placed public works. Depressions are due partly to the fact that the consuming public has not sufficient purchasing power to buy goods so that industry may produce. To increase the purchasing power it is at times necessary to use some means of increasing the income of consumers, and public works provides one method of doing this.

Another method is to handle technological improvements in such a way as not to throw large bodies of employees out of work until they have had an opportunity to fit themselves to fill other places in industry. New, patented inventions have been so numerous that the term *technological unemployment* has been created, as it is recognized that a large amount of temporary unemployment has been so created.

A short-time method of alleviating the effects of unemployment is through unemployment compensation. This is a device used to tide an unemployed person over until he can find a job, and is in no sense a cure for the situation.

Public employment agencies are a means of handling the unemployed; they provide a place where the buyers and sellers of labor can meet and satisfy their requirements. Through them an unemployed person may make a labor contract without wasteful soliciting.

Finally, let us consider what is known as *stabilization of industry.* Some industries are seasonal and during certain parts of the year workers are laid off. This contributes to unemployment. The Government is attempting to stabilize such industries by urging them to level off production as much as possible and thus create steady jobs for the workers.

KEY POINTS IN UNIT 7

1. As used by economists, the term *unemployment* means the inability, of persons willing and able to work, to make a labor contract.

2. A few of the common causes of unemployment are: business depressions, technological unemployment, and seasonal industries.

3. In times of depression, unemployment is largely due to the lack of purchasing power by the public; that is, a lack of demand for consumers' goods. One method of temporarily relieving this type of unemployment is by means of public works.

4. *Technological unemployment* is due to the replacing of men by machines. This difficulty may be remedied to some extent by making such changes gradually, thus giving the employees an opportunity to learn other types of work.

5. Another temporary relief for unemployment is unemployment compensation.

6. Free public employment agencies are suggested as another means of helping the unemployed find work, with the advantage that this service is without expense to the worker.

7. The stabilization of industry is a method advised by the Government as a means of making employment more steady for the seasonal workers. Industries are urged to level off production, when possible, to avoid seasonal periods of unemployment, or to use employees in two different types of work.

Unit 8. Labor's International Relations

With the forming of the League of Nations, one of the most important offices set up was the International Labour Office, which carries on its work at McGill University in Canada. From October 27 to November 25, 1941, an International Labor Conference was held in New York City. Thirty-five countries were represented including those of North and South America, the British Empire and its self-governing dominions, European countries in exile, Ireland, China, Thailand, Egypt, and Iran. Delegates met to discuss the part the I.L.O. should play in postwar reconstruction, and the conference adopted several resolutions and a program of action for the I.L.O. in putting the resolutions into effect.

The program of action, unanimously adopted, resolved that at the close of the war immediate action, previously planned and arranged, must be carried out along the following lines:

1. Feeding of people in need
2. Reconstruction of devastated countries
3. Provision and transportation of raw materials and capital equipment necessary for restoration of economic activity
4. Reopening of trade outlets
5. Resettlement of workers and families in circumstances of freedom and security

6. Changing over of industry to needs of peace
7. Maintenance of employment
8. Raising of standard of living throughout the world

The International Labour Office asked the governing body of the conference to:

(*a*) Transmit this resolution to the governments of all member states and ask that the I.L.O. be represented in any peace and reconstruction conference following the war.

(*b*) Suggest to the governments of member states that they should, if they have not already done so, set up representative agencies for the study of social and economic needs of the postwar world and that such agencies should consult with the I.L.O.

(*c*) Set up from its own membership a small committee to study and prepare measures of reconstruction—especially to deal with unemployment.

(*d*) Make full use of the existing organs of the I.L.O., such as the International Public Works Committee, the Permanent Agricultural Committee, the Permanent Committee on Migration for Settlement, and the Joint Maritime Committee, to make modifications in the composition of these agencies as deemed advisable, to set up such new agencies as may be needed to meet the responsibilities implied in this resolution.

(*e*) Direct program of work of the I.L.O. to fulfill the purposes of this resolution.

(*f*) Report on subject matter of this resolution to next and subsequent meetings of the I.L.O. so that the I.L.O. shall be in a position to give authoritative expression to the social objectives confided to it, and in the rebuilding of a peaceful world upon the basis of "improved labor standards, economic advancement, and social security."

Other resolutions passed dealt with:

1. Protection of seamen
2. Improved social-economic conditions in the Americas
3. Representation of managers and workers in government agencies concerned with public policy as it affects the interest of these groups
4. Development of plans for dealing with internal transportation problems and with world textile problems

One resolution adopted urged that the utmost possible industrial aid be given to China, Great Britain, Russia, and allies, and proposed economic co-operation as a basis for postwar reconstruction and establishment of peace.

KEY POINTS IN UNIT 8

1. When the League of Nations was organized, one of the important offices set up was the International Labour Office. Headquarters for the

office was installed originally in Geneva, Switzerland, but was later moved to McGill University, Montreal, Canada.

2. In the fall of 1941, an International Labor Conference was held in New York City. Thirty-five countries were represented at the conference.

3. An eight-point program was adopted to be put into immediate action following the close of the war.

4. The governing body of the conference was asked to transmit the resolutions to all the governments represented and to ask for representation of the International Labour Office in any peace or reconstruction conference which should be held.

5. Among the various items emphasized by the labor conference was maintenance of employment and the raising of the standards of living throughout the world.

6. One resolution adopted urged that utmost industrial aid be given to China, Great Britain, Russia, and allies.

QUIZ QUESTIONS ON CHAPTER XII

1. *Define* labor. *Distinguish between physical and mental labor.*
2. *What historical event of vital interest to the working class occurred in 1776?*
3. *Why did the passing of the hand-industries stage in our history cause the development of labor problems?*
4. *Name three of the most common causes of disputes between capital and labor.*
5. *Distinguish between* wages *and the* wage rate.
6. *What determines the highest wage rate an employer can afford to pay?*
7. *What determines the lowest wage rate a worker can afford to accept?*
8. *What determines the wage rate of a seasonal worker?*
9. *Name three common causes for unemployment.*
10. *Give three suggested remedies for unemployment.*
11. *What is the meaning of* technological unemployment? *Give examples.*
12. *When an economist speaks of the* unemployed, *to what particular group does he refer?*
13. *What types of persons make up the* unemployables?
14. *Do capital and the enterpriser take all the risk in an industry? Give reasons.*
15. *What was the purpose of the Sherman Antitrust Act?*
16. *Do labor unions decline or flourish during a war emergency? What was the approximate membership of labor unions in the United States in 1930? In 1937? In 1942?*
17. *As an employee would you prefer to be a member of a labor union? Give reasons.*
18. *What labor organization took the place of the Knights of Labor which ceased to function in 1890?*
19. *Name three prominent labor unions which are active at the present time. Which one was most recently organized?*
20. *What three classes are vitally interested in disputes between capital and labor?*
21. *Why were members of labor unions interested in the passage of the Clayton Act?*
22. *Did the Norris-LaGuardia Act favor capital or labor?*
23. *What is meant by* collective bargaining?
24. *Do enterprisers recognize the right of labor to engage in collective bargaining? Do the courts recognize this method of bargaining as a right of labor unions?*
25. *What is meant by a* yellow-dog contract? *Is this type of contract legal?*

Chapter XIII

TRADE ASSOCIATIONS

OBJECTIVE: Trade associations, their organization and history; their relation and service to public welfare.

PREVIEW: *The term* trade association *is often applied to organizations made up of employers representing industrial plants which are producing commodities, or employers representing services, such as transportation. Membership in such an organization is usually limited to individuals, firms, or corporations that have been engaged in that particular line of business for at least one or two years. A trade association, then, is composed of many different firms all producing the same type of goods and each engaged in competition with other firms in the organization. Such an organization ordinarily has a close relationship with other trade associations, especially those in related fields.*

There are also associations, better known as professional associations, *with memberships composed of men and women who are not connected with industrial plants, produce only services, and are not employers. Examples of such associations are: American Association of University Professors, American Medical Association, Federated American Engineering Societies, American Dental Association, and others. A trade association is an organization of tradesmen, business men, or manufacturers, in the same line of industry, for the protection and advancement of their common interests. The trade association considers itself a group of important business concerns having a responsibility to the public.*

Trade associations were organized originally for defensive or offensive reasons. The organization of labor and the increasing strength of labor unions caused concern to many enterprisers. Consequently, when pending state or national legislation was believed to be injurious to owners of the industries affected, they would unite for the purpose of combatting such legislation; or if pending legislation appeared to be an advantage, the owners would unite as an association to assure passage of a favorable law.

The purpose of a professional association is to improve service to the public, and much emphasis is laid upon ethics in the profession. Although there are also trade associations which work toward greater ethical consid-

eration, their fundamental purpose is rather the improvement of the financial position of the members; their contact with the public is mainly to create a greater demand for their particular goods, primarily through advertising.

Codes of ethics are not always written, but, whether written or not, enforcement of a code is necessary. Members of trade associations claim that the object of a code of business ethics is to set up such standards of conduct as would insure competition on an equal basis to all members of the association. Nearly 800 business organizations, some of them trade associations, endorsed the following statement made by the United States Chamber of Commerce:

"When business enterprise is successfully carried on with constant and efficient endeavor to reduce the costs of production and distribution, to improve the quality of its products, and to give fair treatment to customers, capital, management, and labor, it renders public service of the highest value."

This chapter deals with the organization of trade associations, the different types, their purposes, varied activities, and their relationship to the public welfare.

Unit 1. Meaning and Organization of Trade Associations

A. Trade Association Defined.
B. Organization of Trade Associations.

A. Trade Association Defined. In taking up the subject of trade associations, it is first necessary to make clear exactly what they are and their place and importance in our social structure. Briefly stated, a *trade association* is an organization of businessmen engaged in the same line of industry, therefore all trade associations are assumed to be made up of competitors. The purpose of a trade association is the protection and advancement of the common interest of the members. Such an organization is composed of a number of representatives of industrial plants that produce the same commodity (for example, sugar or steel) or perform the same service, as railway transportation. The members of trade associations organize for certain definite purposes and for carrying on certain activities. Their form of organization is sometimes characterized as

horizontal, as members are all engaged in the same kind of activity; that is, all are producing goods or maintaining a service which satisfies the public's desire. For example, a trade association may be made up of all the plants engaged in refining sugar.

Corporations and monopolies are designated as *vertical combinations* since they are made up of one great management which controls all the industries that contribute to the whole monopoly, such as the source of raw material. Often these organizations also control the lines of transportation which carry the raw materials, and the plants where the finished articles are produced. In such cases, competition has been eliminated and through the process of merging, or amalgamation, or eliminating competitors, there has emerged a great corporation. The difference between this type of organization and the trade association is evident. Trade associations are *institutions* in so far as American economic life is concerned. They have become a part of our economic structure; like banking institutions, the trade associations represent a group aspect of life and are an organized arrangement according to which a comparatively large number of people carry on their work.

It is not possible to have a clear understanding of the structure of our economic life without a knowledge of the organization and purposes of the trade associations as well as a knowledge of corporations that approach monopolies.

While the term *trade associations* is usually applied to organizations of industrial plants producing commodities or those rendering services like transportation, which are made up of employers, there are associations of men and women who possess no plants, produce only services, and are not employers. Examples of such organizations are: the American Medical Association, American Association of University Professors, Federated American Engineering Societies, American Dental Association, the American Bar Association, the American Chemical Society, and the Library Association. The people in these groups organize for the purpose of bettering the profession and of improving their own conditions. The professional associations and trade associations do not belong on the same plane. The purpose of the professional associations is to improve the services rendered by the profession to the public, and much emphasis

is laid on ethics in the profession. The trade association is also working toward greater ethical considerations, but its fundamental purpose is rather the improvement of the financial position of its members; contact with the public is mainly to secure larger demands for the particular goods, through advertising, for example, which is not allowed in the medical profession.

B. Organization of Trade Associations. In dealing with the subject of trade associations, a few fundamentals necessary in creating such a body should be discussed. First, the aims and purposes of the association must be fully understood. Since membership in such an organization is voluntary, those who join must be willing to associate with competitors in order to find the solution for problems common to the industry as a whole. Through the organization there must be intelligent co-operation; this is necessary to counteract the weakness of individual firms in an economic society that has become as complex as ours.

The first trade associations usually came into existence either for defensive or offensive reasons. Perhaps state or national legislation was under consideration which the industries believed injurious to them as a whole, and the owners of the industries united to combat it. On the other hand when the industrialists believed that some particular pending legislation would be an advantage to them they would unite in an association to secure such legislation. In most cases, the industrialists found there were many ways in which they would benefit by co-operation, and they formulated programs of constructive activity that would not only improve their own industry but would also improve their service to the public.

Active membership in a trade association is usually limited to individuals, firms, or corporations that have been engaged in that particular line of business for one or two years. The trade association looks upon itself as a group made up of important and intricate business concerns that have a public responsibility. Therefore, the business of the association as an organization cannot be handled by general meetings of members, but there must be a governing board appointed by the members, meeting regularly, which has general control of the affairs, funds, and property, and a general power to determine its policy. The officers of the trade association form a

part of this board. By this method the administrative responsibility is centralized.

The executive secretary is the association's salaried officer, and his activities have much to do with building up or tearing down the organization. As to his qualifications, he must be a man of affairs as well as one thoroughly trained in economic research so that he may understand the relation of the industry he serves to other industries and to governmental agencies. He must have the capacity to secure the understanding and sympathetic co-operation of the members of the organization. This will require that he be an able executive with tact and ability to direct the activities of the membership through building up a mutual interest.

Trade Journals

Trade associations frequently have close relations with other trade associations, especially those in a related field, even to the extent of becoming affiliated or forming a joint council. Besides having such contacts with each other, a number of associations maintain contacts with educational institutions and carry on research work in the laboratories of such institutions.

Many associations publish their own bulletins containing information concerning their work; these go to the membership and also to the public. The reports of the executive secretary are usually circulated only among members. In some lines of industry private trade journals are published by persons outside the association and maintained for profit only. Some of the associations hold that it is not a bad thing to have two or three such privately run independent journals as well as the journal published by the trade association itself.

KEY POINTS IN UNIT 1

1. Trade associations are organizations of business men engaged in the same line; consequently all trade associations are assumed to be made up of competitors.

2. Trade associations are organized not only for men engaged in the production of commodities such as sugar or steel, but also for men engaged in services, such as transportation.

3. There are also professional associations, among them such organizations as the American Medical Association, Federated American Engineering Societies, Library Associations, and many others. Such associations fix and maintain high ethical standards and seek to improve the service rendered the public.

4. Trade associations are institutions which are a part of our economic structure; like banks, they represent a phase of our economic life which affects the welfare of a great number of people.

5. There must be intelligent co-operation by the members of the various trade associations, otherwise they are ineffective and defeat their own purpose.

6. In order to have a clear understanding of the structure of our economic life, a knowledge of the organization and purposes of trade associations is necessary.

7. The first trade associations came into existence for defensive and offensive reasons. Labor unions were increasing in strength, and legislation by Congress became a growing threat to the development of industries engaged in the production of commodities and services important to public welfare. Unfair practices directed against the producers of economic goods can become just as great a menace to public welfare as unfair practices of corporations and monopolies. Both must be kept under control.

8. The business of a trade association is handled by a governing board appointed by the members. The executive secretary is the association's salaried officer. He must be a man of ability, thoroughly trained in economic research, and qualified to understand the relationship of other industries and governmental agencies to the industry he serves.

9. Membership in a trade association is usually limited to individuals, firms, or organizations that have been engaged in that line of business for at least one or two years.

Unit 2. Types of Trade Associations

A. Railroads and Public Utilities.
B. Highways, Automobiles, and Airplanes.
C. Coal and Oil Industries.
D. Metals and Machinery.
E. Miscellaneous Manufacturing Industries.
F. Textile Industries.

A. Railroads and Public Utilities. There are at least two conditions that characterize railways, gas and electric companies, and street railways: (1) Their relation to government regulations, and (2) their extensive relationship to the public. There is a third point that might be stressed: all of these industries are highly specialized so that it is important that all angles of operation and management should have an opportunity to exchange information that may enable them to reduce operating costs.

All the important railways of the country are represented in the American Railway Association which deals with all matters that have to do directly with problems of transportation. This association has many divisions; perhaps the car-service division is one of the most important. It has to do with assigning the necessary number of cars to the various districts. This is a larger problem than would perhaps at first appear. It involves both the shippers and the roads, and since carloads of freight are shifted from the tracks and stations of one road to another, it involves seeing that such cars are unloaded as soon as convenient and returned to the road to which they belong. A central office of the association is kept informed as to the probable need for cars in the different districts.

Another division of importance is that of the American Railway Engineering Association. This division works especially for the advancement of the best practices in the design and construction of terminals and trackage. Standard specifications for railroad ties and rails have been worked out.

The Association of Railway Executives has in charge all matters relating to public relations and legislation. There is a Bureau of

Railway Economics, which, though it is a separate organization, is useful to the Association of Railway Executives in providing statistics such as car loadings and shortages, as well as other information essential to their work.

The electric railways have their own organization—the American Electric Railway Association. The problems of this association have centered around increasing automobile traffic, rising costs without increased fares, and usually heavy local taxation. In order to have the proper regulation of public utilities it is necessary that the problems involved should be thoroughly understood by both sides. At times in various states there has been an Association of State Utility Commissions that deals with the problems from the point of view of the public and can more intelligently deal with the utilities, in this case the Electrical Railway Association.

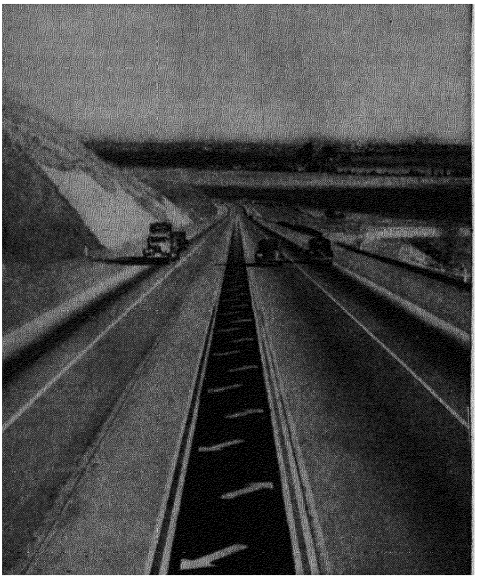
The electric light and power companies comprise one of the three large groups that, in their special fields, amount to monopolies; their organization is the National Electric Light Association, and the work is handled by a number of committees.

Some of the problems handled by these committees are: power-plant design and operation, accident prevention, electrical apparatus, meters, overhead systems, underground systems, and hydraulic power. Committees also handle public relations, advertising, training, education, compensation, and health. Another field for committee work has been that of stock ownership, educating and interesting the public and its own employees in the ownership of stock in the company. This spread of the ownership in power and light companies, through their customer and employee ownership plan, has been an important angle in the public utility companies. Finally, committees also handle questions involving rural electric service, rate research, electrification of steam railways and, in general, the electrical resources of the nation.

B. Highways, Automobiles, and Airplanes. An advisory board for highway research carries on much investigation related to highways. It is connected with the National Research Council and receives its funds from the Bureau of Public Roads. Through this means, the experimental work carried on by state agencies and universities is co-ordinated. As an example of the practical benefits

of their work, the construction of concrete roads has been completely revolutionized within a few years.

Trade associations that are made up of the manufacturers and producers of road-building materials have extensive field forces of engineers who consult with highway officials and county engineers and aid in advising on the use of particular products and later inspect the projects that involve their use.



Underwood & Underwood

Modern Concrete Highway

The National Automobile Chamber of Commerce has represented most of the companies engaged in the automobile industry for a number of years. One of its main functions is making arrangements between its members for the cross-licensing of the vast number of patents held by the various companies. The arrangements made have saved much annoyance and litigation concerning the infringements of patents.

The organization has a foreign-trade section which has brought about friendly working relations with foreign companies and an interchange of ideas that has been of aid both in manufacturing and selling automobiles.

A large number of manufacturers and jobbers of automobile parts, accessories, and service equipment belong to the Automotive Manufacturers' Association. The association maintains a permanent exhibition of the members' products at the Motor Mart. This is of considerable importance to wholesale buyers who thus have an opportunity to inspect and compare many products.

The Society of Automotive Engineers is a technical body repre-

senting and co-operating with all branches of the industry. They work especially to eliminate waste, develop more efficient production methods, and improve products.

The American Automobile Association is made up of a large number of local clubs scattered throughout the country; its purpose is to bring about greater safety in highway traffic, to secure legislation favorable to the motoring public, to secure the building of more highways, and to provide road maps and other touring aids.

The Aeronautical Chamber of Commerce of America represents the manufacturers of aircraft and aircraft supplies. Its purpose is to foster trade and commerce not only throughout the United States but with foreign countries. Before World War II the sale of aircraft parts and accessories to foreign countries was developing rapidly. This association also has co-operated closely with Government agencies in developing and improving types of airplanes.

C. Coal and Oil Industries. The National Coal Association is made up of coal operators. It has a large representation in the entire bituminous coal industry. It deals with matters concerning the operation of mines, such as marketing, safety, cost accounting, publicity, Government relations, transportation, and foreign trade.

The American Wholesale Coal Association is another large organization in the coal industry. It has a traffic department, informs the members concerning legislative activities, maintains a credit exchange, and has done much work in the field of market research. There is also a National Retail Coal Merchants' Association. One of the main pieces of work carried on by this organization is to build up a sound cost-accounting system and credit bureaus.

The American Petroleum Institute, composed of those engaged in production of petroleum, maintains a research department and serves as a clearing house for the exchange of information on improved technical processes, on the refining and use of petroleum products, and on accounting. The institute has established standards for measuring quantities of oil and for determining specific gravity. There are several other organizations in the oil industry and a close association with both engineers and geologists.

D. Metals and Machinery. The American Iron and Steel Institute is the principal organization of the iron and steel industry

in the United States. It includes in its membership the officials of most of the leading iron and steel concerns in the country. At their meetings papers are presented on the latest processes in iron and steel production, on labor-saving devices, and on general business trends and conditions affecting the industry.

The iron and steel finished products also have their trade associations; for example, the Steel Barrel Manufacturing Institute, the National Association of Steel Furniture Manufacturers, the National Boiler and Radiator Manufacturers' Association and the American Hardware Manufacturers' Association. It is not possible to attempt to name all of the various associations that have been organized in the field of machine manufacturing, their number is so great; a few are: the Locomotive Crane Manufacturers' Association, the American Washing Machine Manufacturers' Association, and the Refrigerating Machinery Association.

E. Miscellaneous Manufacturing Industries. One of the outstanding industries of the country is that of papermaking. The American Paper and Pulp Association is the trade association representing the paper manufacturers. The organization has made a survey of all methods of saving in the industry so as to avoid former waste. A method of sampling and testing wood pulp has been worked out by experienced chemists. Other work of the association has been the setting up of statistical departments and cost-accounting systems. There are three principal branches of the paper industry—newsprint service, paperboard industry, and writing-paper manufacturing.

The Tanners' Council of America was formed in 1917 to assist the Government in controlling foreign commerce in hides, skins, and leather, and in securing sufficient supplies of leather for the Army. A number of the activities of the organization at its beginning have been taken over by the Bureau of Foreign and Domestic Commerce of the Government. It has laid much emphasis on a uniform accounting system and on unfair practices, especially on the part of manufacturers of leather substitutes.

F. Textile Industries. The National Association of Wool Manufacturers is one of the oldest trade associations in the country. From the time of its organization it has been much interested in

tariff legislation. The organization presents an annual statistical report. It has established standards for raw wool and for wool products and is also engaged in research bearing on commercial and manufacturing problems.

The Cotton Textile Institute is young, in comparison with the wool association. The main efforts of the Cotton Institute are to find ways and means for increasing business through developing efficient operation. A cost-accounting system has been worked out, a statistical service is provided for members, technical and market research is carried on, and consideration is given to sales problems.

Six groups of trade associations have been cited as examples. Trade associations number into the hundreds. In comparing those mentioned, it is seen that there is considerable similarity in their activities. It must be recalled that all the members of a trade association are assumed to be competing with each other. Some claim that, since the association works out uniform cost accounting and statistical material to be used by all the members if they desire, and since it also provides its members with much information on the market and other matters, it contributes to fairer competition because all the competitors are on a more nearly even basis. Therefore, each member has a much better knowledge of the industry as a whole, how it is developing, its general difficulties, and its possibilities, than he would have if he were not a member of such an organization.

KEY POINTS IN UNIT 2

1. Trade associations include various types, among these some of the most important are: American Railway Association, National Coal Association, American Petroleum Institute, American Iron and Steel Institute, Rubber Association of America, and National Association of Wool Manufacturers.

2. The American Railway Association deals with all problems of transportation. This association has several allied divisions which handle details; for example, the car division which keeps check on all cars belonging to each particular railroad company.

3. Another division of importance is the Association of Railway Executives, which has in charge all matters pertaining to public relations and legislation.

4. The American Automobile Association is made up of numerous local clubs scattered throughout the country. The purpose of this associa-

tion is to bring about greater safety in highway traffic, secure favorable legislation, encourage building of more highways, and provide road maps and other touring information.

5. Another large organization of vital interest to public welfare is the National Coal Association which represents the entire bituminous coal industry. It deals with operation of mines, marketing, safety, cost accounting, publicity, Government relations, transportation, and foreign trade.

6. The American Petroleum Institute has established standards for measuring quantities of oil and for determining specific gravity.

7. The principal organization of the iron and steel industry in the United States is the American Iron and Steel Institute.

8. Established standards for raw wool and for wool products are provided by the National Association of Wool Manufacturers.

9. Trade associations in the United States number into the hundreds. The examples given in this chapter are merely representative of the activities of the others. Each association handles, primarily, only those activities closely related to the industry which it represents.

Unit 3. Activities of Trade Associations

A. Codes of Business Ethics. When treating the subject of production, statistics, industrial research, and standardization were discussed. All of these activities are carried on to a considerable extent by the trade associations and need not be taken up again.

One trade-association activity that has not been touched on is the formulation of codes of business ethics, then securing their observance as far as possible. Remember a trade association is made up of many different firms all producing the same type of goods and each engaged in competition with the other firms in the association. It is important that this competition be *fair*—not *unfair*.

In the Act that created the Federal Trade Commission, unfair methods of competition were declared unlawful. In its work of administering the antitrust laws, the Commission has attempted to arrive at a definition of *unfair competition*, which was not defined in the Federal Trade Commission Act; perhaps it would be more accurate to say that the Commission has designated certain prac-

tices as unfair competition and has attempted to have industry recognize them as such. These are: persuading employees to leave the services of a competitor, misrepresentation or disparagement of a competitor's goods, securing the breach of competitor's contract, efforts to cut off competitor's supplies or cut off his market, betrayal of confidential information or of trade secrets, intimidation and molestation of a competitor, and conspiracies to injure competitors.

From these points it would seem that unfair competition might be considered as anything that is opposed to good morals or any act that would restrain competition and thus lead to monopoly.

The medical profession has an exceptionally high code of ethics that is based on an oath drawn up in Greece more than 2,000 years ago by Hippocrates. Today, most physicians when entering their profession accept the oath of Hippocrates and pledge themselves to keep it. Within recent years there has been a decided effort among business men to build up a code of ethics for business. Not only this, but some schools of commerce have laid stress on business being a profession, in which certain activities are regarded as legitimate while some others are not. In business ethics considerable attention is given to the question of what should be considered a fair profit. Some hold that when business recognizes that its function is public service, this is one step toward abolishing undue profits. This would mean that price would be based on cost of production, with a profit that could be divided among the stockholders, put back into the business, or put aside as a reserve fund.

Nearly 800 business organizations, partially made up of trade associations, endorsed the following statement made by the United States Chamber of Commerce:

> When business enterprise is successfully carried on with constant and efficient endeavor to reduce the costs of production and distribution, to improve the quality of its products, and to give fair treatment to customers, capital, management, and labor, it renders public service of the highest value.

Members of trade associations claim that the object of a code of business ethics is to set up such standards of conduct as would insure that members of the association would compete with each other on a basis of equal opportunity.

Codes of ethics are not always written, but whether written or not, the mere accepting of a code is not the ultimate object; enforcement is necessary. After an organization has educated its membership to the point of passing such a code, carrying it out may not be difficult; but carrying out the code does require that members recognize in a rather high degree their individual responsibility to the group. However, within the trade association there is what may be called a public opinion, which will definitely help to keep the membership in line.

Edgar L. Heermance has named one of his books, *Can Business Govern Itself?* In his answer he maintains that it may do so if it first sets up a standard to which members must conform, and then compels them to conform. Industries can succeed in this if the members think in terms of the business as a whole. Perhaps it was within such a group that economic planning had its beginnings. One has only to read the vast material on the activities and research done by trade associations to understand the great influence they exert today.

The National Industrial Recovery Act passed in 1933 provided that trade associations should draw up codes of fair competition; that is, codes of ethics for themselves; that these should be passed upon by the administrative branch of the Government; and that if a trade association failed to do this, a code might be prepared by the President and, after the proper public hearing, it should become the recognized code for the organization.

The Act contained the now famous labor Section 7a which provided that employees should have the right to organize and bargain collectively through representatives of their own choosing, and that they should be free from any interference, restraint, or coercion by employers of labor in their designation of such representatives or in their self-organization.

Further, it provided that no employee should be required to join any company union or should be restrained from joining or assisting in organizing a labor organization of his own choosing.

While this Act was in operation, many codes were drawn up and passed on by the executive, and many codes already in operation were approved. When the Act was declared unconstitutional,

many of the trade associations that were working under these codes continued to do so.

Trade associations have come into conflict with the law on one special point: the setting of prices. That being considered an infringement of the antitrust laws, a number of associations have been brought into court.

Attempts have been made to draw comparisons between the guild system of the early handicraft period and the trade associations of the twentieth century. While some similarities to the guilds are found in the trade associations, a number of points show little resemblance. The guild was made up of master workmen who were fully trained in the skills of their industry and owned the tools with which they, their apprentices, and journeymen worked. Men in the two latter groups could become master workmen when they had completed their training and accumulated enough money to buy the necessary tools to start their own enterprises. To be sure, each craft was organized as a whole, but the enterprisers who administered their own home industry, were also workers. The modern trade association is made up of the administrative part of the business and does not include the great body of workers; and there is no assumption, as in the guilds, that the workman will advance into the position of owner and administrator.

Business Administrator

Further, in case of the guild the prices that the consumers of their goods were to pay were set by the guild. Price then was controlled by the guilds as a whole. In the case of the trade association there can be no price fixing for the whole trade association, prices are set by the individual firms in the association.

KEY POINTS IN UNIT 3

1. A trade association cannot set prices on economic goods because of infringement of antitrust laws. The prices must be set by each individual firm on its own goods.

2. In administering the antitrust laws, the Federal Trade Commission has attempted to arrive at a definition of *unfair competition*, which was not defined in the Federal Trade Commission Act, by designating certain practices as unfair.

3. When considering the practices and activities of the trade associations, it appears that anything opposed to good morals or any act which would restrain competition and lead to monopoly has been designated as *unfair competition* by the Federal Trade Commission.

4. The National Industrial Recovery Act passed in 1933 provided that trade associations should draw up industrial codes and present them to the administrative branch of the Government for approval. If any trade association failed to meet this requirement, the President of the United States could prepare an industrial code for that particular association.

5. Many trade associations complied with the law and drew up codes of business ethics which were approved; after the law was declared unconstitutional these codes were retained by many business firms which had adopted them.

6. All medical men upon graduation take the oath of Hippocrates, the "Father of Medicine," pledging themselves to maintain high ethical standards in the profession.

7. A statement made by the United States Chamber of Commerce to the effect that all codes of business ethics should include fair treatment to the customers, capital, management, and labor, has been endorsed by approximately 800 business organizations in the United States.

QUIZ QUESTIONS ON CHAPTER XIII

1. *Define* trade association. *In what way is membership in an association restricted?*
2. *Why are trade associations sometimes called* horizontal combinations?
3. *Name five associations composed of members who are not engaged in producing economic goods but who produce economic services.*
4. *Explain briefly how trade associations are organized. Who handles the business? What officer receives a salary?*
5. *Name five trade associations important in the economic life of America and give at least one purpose of each association you have named.*
6. *How have standards been established for measuring oil?*
7. *Are trade associations restricted by law? Explain.*
8. *What Commission has attempted to define* unfair competition?
9. *What was required of trade associations under the National Industrial Recovery Act? When was this law passed? Is it still in operation?*
10. *Give briefly the statement made by the United States Chamber of Commerce which has been endorsed by a large number of business organizations.*

Chapter XIV

CORPORATIONS AND MONOPOLIES

OBJECTIVE: Corporations, what they are; extent, size, and threat as monopolies; place of public utilities; problems of control.

PREVIEW: *A corporation is a voluntary association of a group of individuals (stockholders) who have secured, from the state, a corporate charter granting them certain rights and privileges in the conduct of a business enterprise created for purposes designated in the charter. Such a group of stockholders is recognized by law as a fictitious person. The stockholders are owners of the corporation. The state, the corporation, and the stockholders are the three parties represented in the charter. A charter may be granted for continuous existence of the corporation, or it may have a definitely expressed time limit.*

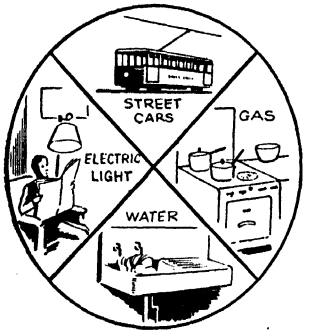
The corporation is a form of business enterprise extensively used in the United States today. Many people look upon the corporation as a means of making small investments without danger of heavy losses. In case the corporation should fail in the enterprise undertaken, the liability of the individual stockholder is limited to the amount of money he has invested in the business.

In recent years, estimates made by reputable economists indicate that approximately 80 per cent of all the wealth in the United States is controlled by corporations. However, most of these corporations are relatively small in size, since about 75 per cent of all corporated business enterprises have assets valued at less than $25,000 each. The large-scale industrial corporations which may approach monopolies, with wealth of more than $50,000,000 each, are comparatively few in number. Large corporations are composed of many stockholders; for example, the American Telephone and Telegraph Company, with wealth valued at more than $5,000,000,000, is a corporation with more than 600,000 stockholders.

The business of such a corporation as the American Telephone and Telegraph Company extends into every part of the United States and to some extent into foreign lands. Such a huge business requires an efficient administrative force having a vast amount of available information. This is a great corporation and it has heavy responsibilities: (1) to the public, its customers who consume its services; (2) to the investors who have entrusted the corporation with their savings, hoping to secure a satisfactory income on their

capital; (3) to the employees of the company, more than 250,000 in number, many of whom have grown old in the service. The consumers include the great mass of people who have telephones in their homes, and those who, numbering into the millions, use the telegraph service. When we consider the service of such a corporation, we realize that it is a powerful industrial unit with widespread influence.

This type of service is recognized as a public utility, along with the services which provide water, electricity, gas, and transportation. In city life, most of these services are indispensable to the great mass of the people. In the minds of some persons this is a point that distinguishes a public utility from other economic services—those provided by steel or textile corporations, for example.



Public Utilities

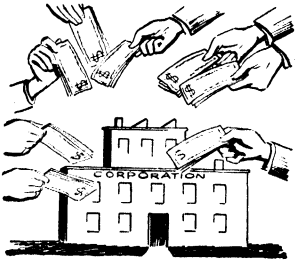
Some people also distinguish a public utility from other economic services by referring to the former as a natural monopoly. *A* natural monopoly *exists when the natural source of supply of a utility is limited; anthracite coal and diamonds are examples. An individual, or a company, that is able to obtain control of such a source of supply can easily monopolize the entire business in that particular line because the natural supply is limited. The term* natural monopoly *is sometimes applied to a public utility which, because of its nature, is easily adaptable to the combining of services; this saves in the cost of production, which results in a benefit to the public. The American Telephone and Telegraph Company is an example of such a combination of services.*

In any country where industries are highly organized and complicated, the government is faced with the problem of finding a method of control which will be fair to all the factors concerned in the production of economic goods, and also be fair to the consumers of these goods. From time to time Congress has passed laws intended to correct abuses of power by corporations that have disregarded their responsibility as a public trust.

This chapter deals with corporations, the advantages of large-scale production, the effects of the development of monopolies, and the various problems involved in the control of corporations.

Unit 1. Corporations Defined

A *corporation* is a voluntary association of persons, created by securing from the state a license or a charter. It is endowed with continuity of existence; it would not be entirely correct to say that all corporations are incorporated for continuous existence, since some states charter a corporation for a limited time only. At law it is considered as a collective, fictitious, or legal person, its rights and privileges being given to it by the state. These rights are expressed in its charter. The state, the corporation, and the owners (the stockholders of the corporation) are the three parties represented in this charter.



A Corporation Formed by Small Investors

The majority of corporations have certain characteristics, among them: limited liability of stockholders; ease of securing capital; flexibility of management; easy transfer of shares of stock, which means that ownership and control can thus be changed easily; autonomy, including the right to own and control property, to enter into contracts, and to be sued and to sue. Perhaps the fact that has led to such extensive use of the corporation as a form of business is the limited liability of the stockholders, who are held only to the extent of their investment, should the corporation fail. Another advantage of the corporation is the fact that through such an organization large amounts of capital can be brought together from the savings of relatively small investors. This means that great masses of people can find an opportunity to set their money to work in these giant concerns by combining it with the savings of others. This is the advantage of the divisibility of ownership.

KEY POINTS IN UNIT 1

1. A *corporation* consists of a group of individuals, known as *stockholders*, who have organized for the purpose of carrying on a business enterprise.

2. A corporate business must be conducted in accordance with a charter secured from the state in which the business is located.

3. A charter granted by any state in the United States will be recognized by every other state in accordance with the Constitution, Article IV, Section 1: "Full faith and credit shall be given in each state to the public acts, records, and judicial proceedings of every other state."

4. A charter is sometimes granted for continuous existence of a corporation, but a definite time limit may be requested in the application for the charter if the stockholders so desire.

5. The parties represented in a charter are: the state, the corporation, and the stockholders who are the owners of the corporation.

6. One notable feature of a corporation is the fact that large amounts of capital may be made up of the savings of many investors.

7. The combined savings of a large number of small investors sometimes make possible the formation of a comparatively large-scale industry and a satisfactory return to the stockholders on their investment with a minimum of liability.

Unit 2. Extent

The growth of large-scale industry was discussed in an earlier chapter. It may be stated here that the corporation, as a form of business, is displacing all other forms especially in the case of large undertakings that will grow rapidly. It has been estimated that the entire wealth of the United States in 1922 was something over $353,000,000,000, and that corporations controlled $102,000,000,000 of this. Since that time the amount has increased until in 1932 economists working on this problem estimated that at least 78 per cent, and probably more, of business wealth was corporation wealth. It is a difficult matter to make a correct calculation of the entire wealth of the country. The estimate given for 1922 was made by the Federal Trade Commission. The National Industrial Conference Board estimated the national wealth at $360,000,000,000 for 1928. In both cases the percentage estimated as coming under the head of corporate wealth hovered around 80 per cent. One of the difficulties in calculating the amount of the national wealth lies in the changes in valuation of real estate and homes; so, taking into

consideration the difference in time, the estimates are probably as nearly correct as could be expected.

KEY POINTS IN UNIT 2

1. As a form of business enterprise, the corporation has become a commonly accepted type of organization in the United States.
2. Estimates made by the Federal Trade Commission and other agencies showed that 80 per cent of the wealth of our nation was controlled by corporations.
3. Large-scale corporations, however, are comparatively few in number, as more than 75 per cent of all corporated businesses have assets of less than $25,000 each.
4. Any attempt made to calculate our national wealth involves numerous difficulties; among these are the changes in valuation of real estate and homes.
5. It is impossible to make accurate estimates of our natural resources because these can be wasted or destroyed by mismanagement.

Unit 3. Size of Corporations

A comparatively small number of corporations are exceedingly large. The Telegraph and Telephone Company has wealth valued at over $5,000,000,000; United States Steel, more than $2,286,000,000; Pennsylvania Railroad, $2,600,000,000. There are 519 corporations having wealth of more than $50,000,000 each. But about three-fourths of all corporations have assets valued at less than $25,000 each.

Some economists state that the size to which corporations can grow is limited only by the ability of a group of managing individuals to handle such great aggregations of capital. For example, the Telephone and Telegraph Company has about 250,000 employees and 600,000 stockholders. Such a business as this, in touch with every portion of the United States, besides its foreign contacts, requires a vast amount of both information and efficiency on the part of its administrative force. This is one of the great corporations and it has a heavy responsibility, first to its customers, the public, con-

sumers of its services; second, to the investors who have entrusted the corporation with their savings, hoping thus to secure a satisfactory income on their capital, third, the employees of the company, many of whom have grown old in its service. When we take into consideration the consumers of the services, that great numbers of people who have telephones in their homes and those who, numbering into many thousands, use the telegraph frequently, such a corporation is a powerful industrial unit with widespread influence.

KEY POINTS IN UNIT 3

1. Among the large corporations with wealth valued at more than $50,000,000 are: the American Telephone and Telegraph Company, the Pennsylvania Railroad, and the United States Steel Corporation.
2. The American Telephone and Telegraph Company is an outstanding example of a large corporation which provides services for every part of the United States.
3. This company has wealth valued at approximately $5,000,000,000. The corporation is composed of about 600,000 stockholders and has more than 250,000 employees.
4. Such an extensive business enterprise requires a high standard of efficiency on the part of the administrative force, which must be constantly supplied with an enormous fund of information concerning various facts and conditions in the country.
5. Any large-scale corporation assumes great responsibilities: (1) to the public it serves; (2) to the investors who provide the capital; and (3) to the employees whose efficiency makes possible the service of the company.

Unit 4. Public Utilities Distinguished from Other Corporations

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Before comparing corporations as a whole to public utilities, it is necessary to explain the term *public utilities.* Industries which provide necessary services to large numbers of people living under certain social conditions are known as *public utilities;* for example, to those living in cities these services provide water, electricity, gas, bus and street-car transportation, and telephones. In city life today

most of these services are essential to the great mass of the people, therefore they affect the public welfare. In the minds of some economists this is one point that distinguishes them from great manufacturing industries like steel and the textiles.

A second point on which public utilities differ from other industries is the fact that public utilities are what has been called *natural monopolies.* This means, for example, that it would not be for the benefit of the consumers of these services if more than one company provided the service, in fact it might result in less effective service to the consumer. Imagine the confusion that would result if there were several different telephone companies furnishing service for your home. This would require two or more telephones with two or more directories and, at the end of the month, several bills. Hence, it is easily seen that it is more economical and more convenient to have only one telephone company serving a community; it is likewise more economical and more convenient to have only one electric light company, and one gas company serving a community; and it would not be possible for two streetcar lines to have their rails laid in the same street. A further point, as a rule, public utilities (for example, the railroads and power plants) require large investments of capital. As a result, *overhead* or *fixed costs* are high and variable costs are low. This means that in public utilities overhead costs are a large part of the average costs. (It would be well here to review the chapter on *Price Determination.*) This means that public utilities can readily adopt large-scale production methods with low unit costs, and that it is possible for the consuming public to benefit.

It is frequently said that public utilities are responsible for the public welfare because their services are necessary to so great a number of consumers. In this connection it is also pointed out that there is no competition with other companies, so competition cannot be depended upon to protect the consumers; therefore it is usually necessary for the Government to exercise some form of regulation.

Let us compare the United States Steel Corporation, a great manufacturing industry, with a public utility. It is not necessary for everyone to purchase something made by the steel corporation every day of his life, but, if he lives in a city community, he uses

gas, electricity, and probably streetcars everyday. However, over longer periods of time he must buy steel articles, and the public utilities that he patronizes every day are great consumers of steel and iron. Can an industry as large and widespread in its sales as United States Steel be said to be important to the public welfare? Justice Brandeis, formerly of the United States Supreme Court, pointed out that no fundamental difference between a great industry like steel and iron on one hand and electric power on the other determines whether they should be under public regulation; they should be regulated if the people judged that public interests would be injured if there were not sufficient public regulation. In other words, a business important to the public welfare should be considered a public utility in industry when the consumers believe their welfare necessitates regulation. Justice Brandeis spoke from the point of view of the law, but he was one of the men on the Supreme Court Bench and was recognized as a keen student of economic questions.

The United States Steel Corporation, used for comparison with the public utilities, is a member (as are practically all the smaller steel companies) of the American Iron and Steel Institute which is the trade association for the steel industry. In its latest reports, this trade association states that it has a capacity to produce 88,570,000 tons of steel yearly. Price in steel is assumed to be fixed by competition, while most prices in the public utilities are more or less regulated by Government commissions. If steel were to be considered as an industry that affects the public welfare (a public utility), this would raise the problem of whether or not steel prices should be regulated by some commission.

KEY POINTS IN UNIT 4

1. *Public utilities* are industries which provide services necessary for large numbers of people living under certain social conditions, in large cities for example.

2. The public utilities include such services as: water, gas, electricity, telephone, and transportation.

3. In city life today, these services are essential to the great mass of people. Some economists point out that the necessity for public utilities distinguishes them from other large-scale industries such as steel and textiles.

4. Economists also point out that another distinguishing feature of public utilities is the fact that they are a *natural monopoly*. The term *natural monopoly*, as used here, means that because of the nature of the industry a monopoly of such services is a benefit to the public.

5. As a rule, any public utility requires vast amounts of capital; for example, the railroads. By combining the small investments of many individual stockholders, large-scale corporations can be organized and efficient public service provided at lower cost.

6. The United States Steel Corporation and practically all small steel companies are members of the American Iron and Steel Institute, which is the trade association for the steel industry.

7. Prices of steel products are assumed to be determined by competition, while most prices in public utilities are fixed by Government regulation.

Unit 5. Management in a Corporation

If a person owns property he has the right to use that property as he wishes, provided it does not injure someone else; in short he determines its disposal. With the development of the corporation, stockholders often number into thousands and are scattered throughout this country and perhaps abroad. With each owner possessing only a few shares, it is impossible for the owners to decide on the policies of the corporation. To be sure, proxy blanks are sent to all owners requesting them to designate who shall vote for them at the annual meeting of the corporation, but many stockholders do not fully understand the questions which will be raised at that meeting, neither do they know much about the men who will be voted for as members of the board of directors. So, gradually, as the corporations have grown larger and larger, ownership has been separated from management.

In their book *The Modern Corporation and Private Property* written in 1932 by Adolf Berle and Gardiner Means, this separation of ownership from control is treated, perhaps better than anywhere else. Briefly stated it means that a corporation is able to secure the use of large sums of money from the total of small investments made by a great number of people. These people have no initiative in

deciding the policy of the corporation since each person, as a rule, possesses too small a part of the capital and knows too little concerning the problems of management involved. As so large a percentage of the public is represented among the stockholders, the term *quasi-public corporation* has been applied to these great corporations owned in small pieces by the public. The word *quasi*, which is frequently found in writings in economics, means *seeming to be like* or *having some resemblance to.* In other words, a great corporation like United States Steel resembles a public utility corporation. The discussion of this unit may fittingly close with the question, "Does a manufacturing corporation like United States Steel, which provides goods demanded by great numbers of people, thus affecting the welfare of many, approach a public utility as it grows larger and larger?"

KEY POINTS IN UNIT 5

1. In a large corporation the stockholders sometimes number several thousand and are scattered throughout the country.
2. In many instances each owner possesses only a few shares of stock, consequently it is impossible for the stockholders as a whole to decide upon the policy of the business.
3. In a large corporate business the stockholders elect officers, such as a president and a board of directors, to manage the affairs of the corporation.
4. When it is impossible for a stockholder to attend the annual meeting, he is sent a proxy blank on which he designates the person who shall represent him as a voter.
5. Even though the stockholders all attend the annual meeting, many of them do not know the men whose names are presented as candidates.
6. In large corporations, small stockholders have very little control over the management.
7. Large corporations producing economic goods demanded by a great many people are sometimes called *quasi-public corporations.*
8. The term *quasi* is frequently used by economics writers and means *seeming to be like* or *having some resemblance to:* for example, the United States Steel Corporation is a *quasi-public corporation* because it produces goods demanded by a great many people.

Unit 6. Control of Public Utilities

The first attempts to regulate public utilities were local in character and consisted of efforts of municipalities to regulate them, both as to rates and services. This was of little importance since the utilities began to spread state-wide. The next effort to control them was made by the individual states passing legislation, but such legislation soon proved ineffective as it was mostly of a piece-meal character and no adequate enforcement was provided. The next step taken was also only state-wide in its action. Commissions were established in an increasing number of states, until today practically all the states in the Union have public-service commissions to regulate the activities of utilities.

Briefly, the commissions were given control of determining the rates and the quality of the services provided by the utilities. In setting the rates that may be charged, many items must be taken into consideration. Among these are the capital investment of the utility and the determination of what would be considered a fair return on such capital, as well as a fair price for the public to pay for such services. This question of rate setting is a complicated one and is merely mentioned here, noting that one of the difficult angles is to determine what is the real value of the utility's capital.

From local and state control the matter passed on to some degree of Federal control because the great power and light companies and transportation companies extended in a network through many states. While previous acts were passed, this discussion begins with the Federal Power Act in 1935. This extended the authority of the Federal Power Commission which had been created by a previous act. As in other instances of the relations of the state to the Federal Government, the power of the state is limited, the Act provided that the Federal Government should assume control of those activities over which the state had no jurisdiction. As in many instances previously mentioned, especially with the trade associations, the Commission worked out a uniform system of accounting which would

facilitate the exchange of power between the various companies when this seemed advisable. Besides, this Act gave to the Commission power to set the valuation of properties of the utilities and to advise concerning rates.

In the utility field a number of holding companies had been organized which had nothing to do with operation; these companies bought the stock of operating companies and used it for highly speculative purposes. One among these holding companies was so widespread in its sales of stock and was established upon a basis so unsound that, when it finally failed, literally hundreds of stockholders were drawn into bankruptcy and in many cases lost the savings of a lifetime. This tragic situation was sufficient to create a demand for strong legislation on holding companies. Such an act, the Public Utility Holding Company Act, was passed in 1935. In order to get rid of the financially dishonest conditions that had grown up, the Securities and Exchange Commission was enabled by the Public Utility Holding Company Act to regulate the issuance and sale of stock and bonds by the holding companies. It was a measure primarily intended to protect the investing public, which in many cases consisted of those with but a few hundred dollars of savings to invest.

In England economists state definitely that public regulation comes into existence whenever it is necessary to defend the interests of the consumers. It may be stated further in this connection that in England any private enterprise becomes a public utility if Parliament decides that its service has become, in the minds of the people, of so much importance that it should be regulated.

KEY POINTS IN UNIT 6

1. The first attempts made to regulate public utilities were local in character and were made by municipal governments.

2. As public utilities developed into a network of state-wide service, control was taken over by commissions created by legislation enacted by the various states. Practically all the states in the Union now have public-service commissions for regulating the activities of public utilities.

3. In 1935, Congress passed the Federal Power Act and created the Federal Power Commission to enforce the Act.

4. A uniform system of accounting to facilitate exchange of power

between various power companies, when this seems advisable, was worked out by the Federal Power Commission.

5. The Federal Power Act also gave the Commission power to set valuation upon the properties of utilities and to advise concerning rates.

6. Because of dishonest practices of certain holding companies in selling stock, the Public Utility Holding Company Act was passed in 1935. This Act enabled the Securities and Exchange Commission to regulate the issuance and sale of stocks and bonds by the holding companies.

7. The purpose of the Public Utility Holding Act was, primarily, to protect the public against unsound investments. When an enterprise failed, oftentimes the persons who suffered most were those who, while they lost only a few hundred dollars, lost all of their hard-earned savings.

8. In England any private enterprise becomes a public utility if Parliament decides that its service has become, in the minds of the people, of so much importance that it should be regulated.

Unit 7. Control in Case of Industrial Monopolies

If monopoly is defined as a condition in which one company controls the entire supply of a commodity, then there are so few monopolies that they would hardly need to be discussed. Anthracite coal is one such, as one company controls the source of that product. Otherwise absolute monopolies are hard to find. But this discussion deals with certain industries that are close approaches to monopolies, and the efforts that have been made to stop the tendency of great industries to become monopolies.

Three outstanding laws that deal with restraints of trade and attempts to monopolize have been previously mentioned: the Sherman Antitrust Act passed in 1890, the Clayton Act and the Federal Trade Commission Act, both passed in 1914. It remains only to mention as examples a few instances in which these laws were called into action in the attempt to block the development of monopolies in certain fields.

The outstanding cases are United States Steel Corporation, International Harvester Company, American Tobacco Company,

and the Standard Oil Company. All of these were large-scale industries and all of them involved in a considerable amount of manufacturing or processing. Each had reached the point where it dominated its own particular field. When the case of United States Steel was finally decided, it was held by the court that although United States Steel may have started out with the plan of becoming a monopoly and eliminating competition, that such a motive did not constitute it as such under the law; that, while it had been a strong competitor, it had followed practices of fair competition; and that, although it did more than 50 per cent of the iron and steel business, the size of an industry did not necessarily make it a monopoly. Therefore, the court decision stated that United States Steel had not infringed on the antitrust laws, hence dissolution of the company was not required.

In the case of American Tobacco and Standard Oil the court held that in both cases the intent of the companies was to restrain competition and that dissolution was necessary in order to protect the public.

KEY POINTS IN UNIT 7

1. Control of industrial monopolies has been undertaken by the passing of such laws as the Sherman Antitrust Act, the Clayton Antitrust Act, and the Federal Trade Commission Act.
2. There are few companies in the United States which control the entire supply of a commodity.
3. One company controls the entire source of supply for anthracite coal; with this exception, industrial monopolies are hard to find in the United States.
4. The antitrust laws have been called into action to restrain companies approaching monopolies; as examples, the outstanding cases are: United States Steel Corporation, American Tobacco Company, Standard Oil Company, and the International Harvester Company.
5. These are all large-scale industries, but after investigation by court action only two were indicted for monopolistic practices: the American Tobacco Company and the Standard Oil Company. In these two cases, the court held that the intent of the companies was to restrain competition and that dissolution of the companies was necessary in order to protect the public.

Unit 8. Attitude toward Monopolies

It is generally accepted by economists that public-utility monopolies should unquestionably continue. However, it is also accepted and has been shown that there must be practical regulation of these in order to assure to the consumer a quality of service and a price that is fair and reasonable. When discussing the great aggregations that make up the industrial near-monopolies, again the major part of the economists take the position that the laissez-faire attitude is past, that while competition continues in some industries, side by side with the great industry, such competition will have little effect on the large industry. In *Trust and Corporation Problems* written by Henry R. Seager of Columbia University and Charles A. Gulick of the University of California the authors conclude that the movement toward combination is one toward efficiency and economy.

On the other hand, there are economists who agree with J. M. Clark of Columbia University. In his book on *Social Control of Business*, Clark holds that competition lowers the cost of commodities and so lowers prices as well, competition puts the largest amount possible into the hands of the consumers, and that profit is consequently reduced to a low level. He holds that monopoly on the other hand, gives as little as possible to the public for the prices it charges, so that price under monopoly is considerably above that under competition.

Another point should be made in this connection; the large firms producing a certain commodity are probably producing under decreasing cost; that is, each successive unit costs less than the preceding unit. One of the aims of large-scale production is, of course, to find ways to reduce unit costs. If in this same industry there are a considerable number of small firms which in all probability cannot produce at any such low cost as the large firms, and if their goods are needed in the market to meet the demand, the price will have to be large enough to cover their higher cost. Since at any given time there can be but one price in the market, theoretically, the

products of the large firms will sell for this same price, which will be considerably above their cost. This enables the large industries to acquire surplus or profit and grow still larger and more powerful.

If all the benefits of the low costs of large industries were given to the consumer, that form of production would seem to be socially desirable. If price must be high enough to cover the costs of the smaller and less efficient producers, it means that the consumer is subsidizing the small producer in order to maintain competition by keeping him in business, since a low price would eliminate a large number of these small producers. If price were regulated by the Government, the question would arise as to whether or not such regulation should set a price high enough to maintain all the small high-cost producers (assuming they are high cost, as they generally are) or should the price be set so that the consumer would benefit. If a lower price were set it might bankrupt many of the small producers, but the larger, low-cost producers would probably still make a considerable profit. The businessman's interests and the interests of the consumer are not the same.

It may be well to consider the position of still other economists.[1] Some economists hold that the fact might as well be recognized that the monopoly of great business exists and has come to stay. Also, that it is not possible to restore the competition that has been so nearly wiped out in a number of industries. How shall the public be protected? If this is to be done through the expanding of the powers of the Federal Trade Commission, one of the problems of the Commission will be the setting of prices. The Interstate Commerce Commission has always had some difficulty in setting prices in connection with public utilities. The greatest difficulty is in determining the capital value of an industry so that a rate can be set that will secure a fair return on the capital invested. However, this is a problem that is by no means insurmountable, and with an adequate group of experts it could be handled. To be sure, the type and quality of services or commodities must also be under the inspection of the Federal Trade Commission. If this cannot be worked out, some economists hold that the alternative is Government ownership and operation.

[1]Gemmill, P. F., and Blodgett, Ralph H., *Current Economic Problems.*

Among the other economists who have taken a position on this question of what to do with the great aggregations of capital are Professor F. B. Garver of the University of Minnesota and Alvin H. Hansen of Harvard University.[2] These writers point out that the movement away from free competition has been progressing steadily since 1870, that the tendency to combine has spread from what may be called *public utilities* to manufacturing and even to retailing. After discussing the various laws that have been passed to restrain monopoly, they conclude that in all probability more and more efforts will be made in the future to block free competition. As to the attitude of the courts in the matter, they believe that the courts will use the *rule of reason* to modify the Sherman Antitrust Act when it is judged that a combination has arrived at its size through legitimate means; in other words, if it has not used unfair competition; and that such a combination is serving the public well because of its low unit costs. The courts may, under the circumstances, consider that to break up the combination might well be a disservice to the public rather than a service. These economists seem to be considering the welfare of the consumers.

Among other economists who have discussed this question of monopoly are: F. R. Fairchild, E. S. Furniss, and N. S. Buck of Yale University.[3] These writers believe that monopoly should be avoided as far as possible, especially in the field of commodities that are a necessity of life. They are of the opinion that the steady development of monopolistic tendencies has been disappointing in the face of efforts made to defeat their growth, but hold that such development might have been much more widespread if there had been no effort through the antitrust laws to curb them.

They point out that the greatest opposition to the regulation of monopolies and the attempts to curb them comes from the management of great corporations and to a lesser degree from the vast number of stockholders who have investments, small or large, in these corporations. In conclusion, they hold that monopolies are not inevitable and that their regulation has not been entirely a failure, but that if regulation is to continue it must be administered

[2]Garver, F. B., and Hansen, A. H., *Principles of Economics* (revised), 1937.
[3]Fairchild, F. R., Furniss, E. S., and Buck, N. S., *Elementary Economics*, 1939.

properly and have back of it a public opinion that has been educated as to the significance of the whole problem.

The investigation, previously discussed, of the concentration of economic power by the Temporary National Economic Committee in 1938–1941 was made by a Government committee composed largely of senators, representatives, and persons connected with the departments of Justice, Labor, the Treasury, and Commerce. It was different from similar committees appointed in England, in that there was no economist connected with any great educational institution acting on the committee. On a committee of fourteen members investigating Finance and Industry in England, two were professors in economics, John Maynard Keynes of Cambridge and T. E. Gregory of the University of London.

In closing the work of the Temporary National Economic Committee, the chairman made the following recommendations:

1. National charters for national corporations, in order that these agencies may have a definite and a free place in our economy and so that local business may be differentiated and protected from national business.
2. The effective and thorough enforcement of the antitrust laws to maintain competition and to prevent all combinations and agreements that destroy business.
3. The encouragement of new business and small enterprise by revision of the tax laws for the purpose of encouraging new employment and new industry.
4. A national conference, called by Congress, of the various organizations representative of business, labor, agriculture, and consumers, which have for years been working on diverse phases of this central problem, might concentrate public thought and action on the objectives on which there is general agreement instead of, as now, on the "objectives concerning which there is only misunderstanding, suspicion, and disagreement."[4]

The balance sheet of an American corporation is presented to make the character of the corporation clearer. This gives a better idea of what is shown on the liability and asset sides of such a corporation's books. As in the case of the statement of a bank (which is also a corporation) totals of liabilities and assets must be equal.

Postwar Planning. Some attention should be given to Government corporations. Such corporations were established by other countries some years ago, but they were seldom used in the United States until 1916 when the Panama Canal Railroad Company and the Alaska Railroad Corporation were established; the Federal Land

[4] Quotation is from closing statement of Senator Joseph C. O'Mahoney, chairman of the committee.

Banks were chartered in the same year. The War Finance Corporation was established in 1917, as was also the United States Emergency Fleet Corporation, the United States Grain Corporation, and the United States Housing Corporation. After the close of the war all of these corporations were abolished except the Fleet Corporation, which became the United States Maritime Commission. So in the 1920's the Government type of corporation was little used, but in the depression of the 1930's new ones were organized and since the beginning of World War II many new agencies have been formed.

In England such organizations are usually called *public corporations.* In America, they are generally spoken of as *Government corporations.* They have been opposed by private interests wherever the Government corporations have entered into competition with private undertakings that furnish the public either the same goods or services. The Tennessee Valley Authority is one Government undertaking that has created much criticism on the part of private power and light corporations. It has been suggested by the National Resources Planning Board that the Government should organize what would be called *Government-private corporations* in order to carry out the plans for organization of industry in the postwar period.

KEY POINTS IN UNIT 8

1. Many economists concede that public-utility monopolies should be allowed to continue, but that these utilities should be regulated in order to assure fair and reasonable prices and service to consumers.
2. In regard to near-monopolies of large-scale industries, most economists take the position that such combinations are more efficient than small producers. Combinations lower the cost of production and make possible lower prices to consumers.
3. Large industries producing a certain commodity produce additional units at decreasing cost, each successive unit produced costing less than the preceding unit.
4. If the benefits of the low costs of the large-scale industry were passed on to the consumers, that form of production would appear to be the most desirable.
5. If prices must be high enough to cover costs of smaller and less-efficient producers, this would seem to indicate that the consumers are subsidizing the less efficient and high-cost producer in order to maintain him in business.
6. Some economists affirm that competition lowers the cost of com-

ACE & JONES
CONSOLIDATED
YEAR ENDING

ASSETS

	December 31, 19—	
Current Assets:		
Cash on hand and demand deposits	$2,091,226.99	
Trade accounts and serial notes receivable less reserve for credit losses and cash discounts $519,392.64 (19—) and $478,506.44 (19—)	5,113,129.29	
Inventories, on the basis of cost or market, whichever the lower	8,771,741.02	
Miscellaneous accounts receivable	110,263.66	
Due from X Corporation	3,189.41	$16,089,550.37
Prepaid Insurance, Travel Expenses, etc.	24,156.46	
Other Assets:		
Premium deposits with mutual insurance companies	55,752.49	
Advance payments of royalties and commissions	42,799.48	
Cash surrender value of life insurance policies	22,575.00	
Miscellaneous accounts receivable	12,748.46	158,031.89
Investments:		
Common stock of X Corporation at cost	1,190,421.97	
Bonds of other corporations, at cost	168,875.00	1,359,296.97
Fixed Assets, as valued at organization in 19— with subsequent additions at cost, less depreciation:		
Land	534,453.09	
Buildings, less reserve for depreciation (19—)	1,725,559.20	
Realty improvements, less reserve for depreciation $156,025.42 (19—)	110,434.87	
Machinery and equipment, less reserve for depreciation $2,396,295.16 (19—)	2,708,642.01	
Drawings and patterns, less reserve for depreciation $111,806.10 (19—)	225,024.97	5,304,114.14
Goodwill, consisting of Engineering Development, Trade-Marks and Patents		6,838,510.98
		$29,749,504.35

CORPORATION

BALANCE SHEET

DECEMBER 31, 19—

LIABILITIES

		December 31, 19—	
Current Liabilities:			
Trade accounts payable		$ 651,145.54	
Dividends payable		103,153.00	
Miscellaneous accounts payable		84,683.35	
Accrued payrolls, etc		445,016.81	
	19—		
Accrued taxes	$4,514,337.00		
Less United States treasury notes, tax series, at tax payment value	3,375,214.72	1,139,122.28	
Accrued commissions and royalties		223,937.91	
Additional costs of contracts invoiced to customers		1,937.00	
Advance payments on sales contracts		667,216.62	$ 3,316,212.51
Reserves:			
Insurance		196,319.49	
Other		29,468.36	225,787.85
Capital Stock and Surplus:			
Capital Stock:			
Preferred:			
Authorized, 100,000 shares, par value $100.00 each.			
Issued and to be issued 7% cumulative, callable at $120.00 per share	(Shs.) 68,300		
In treasury	10,797		
Outstanding	57,503	5,750,300.00	
Common:			
Authorized, 2,000,000 shares, par value $5.00 each.	(Shs.)		
Issued and to be issued	1,256,968		
In treasury	31,241		
Outstanding	1,225,727	6,128,635.00	11,878,935.00
Capital Surplus:			
Balance, January 1, 19—	$5,598,936.67		
Deduct excess of cost over par of 96 shares preferred stock reacquired	1,194.00	5,597,742.67	
Earned Surplus		8,730,826.32	14,328,568.99
			$29,749,504.35

modities and consequently lowers the prices paid by the consumers. Competition puts the largest possible amount of economic goods into the hands of the consumers.

7. These economists also maintain that the monopolist gives as little as possible to the public for the prices charged; consequently, prices under monopoly are considerably higher than prices under competition.

8. These writers believe that monopolies should be avoided as far as possible, especially in the field of commodities that are necessities of life.

9. A Government committee, known as the *Temporary National Economic Committee*, made an investigation of the concentration of economic power in 1938–1941. The committee was composed largely of senators, representatives, and members of the departments of Justice, Labor, Treasury, and Commerce.

10. Recommendations made by the committee at the close of the investigation include the following: (1) national charters required for national corporations; (2) effective and thorough enforcement of the antitrust laws; (3) revision of tax laws as an encouragement to new industry, which would increase employment; (4) a national conference to be called to concentrate public thought on objectives on which there is general agreement rather than emphasizing those objectives which involve misunderstanding and controversy.

QUIZ QUESTIONS ON CHAPTER XIV

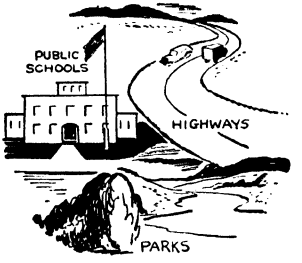
1. *What is a corporation? Explain how a corporation is organized.*
2. *What is a* corporation charter? *Where is such a charter obtained?*
3. *Name the three parties mentioned in a corporation charter.*
4. *Give the advantages or disadvantages of a corporation from the viewpoint of the investor. From the standpoint of the public.*
5. *Are all corporations monopolies? Explain.*
6. *Name three laws passed by Congress in an effort to regulate monopolies.*
7. *Give an example of a monopoly in the United States. Does this monopoly affect the lives of many people? Explain.*
8. *Give views of economists on the advantages or disadvantages of large-scale industries to consumers.*
9. *Are public-utility monopolies a benefit to the consumers?*
10. *Name at least one economist who maintains that competition lowers prices on economic goods, and that monopolies increase such prices.*
11. *What is meant by a* quasi-public utility corporation? *Give an example of such a corporation in the United States.*
12. *What services are provided by the so-called* public utilities?
13. *Name one outstanding example of a public utility which reaches into every part of our country and to some extent into foreign countries.*
14. *Give two examples of corporations which have been indicted because of violation of the antitrust laws.*
15. *Explain how the management of a corporation may be separated from the control of the small stockholders.*

Chapter XV

PUBLIC FINANCE

OBJECTIVE: Significance of economic and social principles underlying our public finance, and the relation of Government expenditures to our sources of revenue.

PREVIEW: *In this discussion the term* finance *applies only to revenue, or income, and the expenditures of the Federal Government. In his book, "The Wealth of Nations," Adam Smith pointed out that the first obligation of a national government is to provide for the well-being of its citizens. He did not look upon the Government as an all-powerful organization privileged to take from the people all the taxes it saw fit. He believed the Government should assume such responsibilities as: carrying on public works that seem necessary, maintaining justice, and providing adequate protection for the country; otherwise, the Government should keep "hands off" the private affairs of individuals.*



Public Services

Taxes provide funds for public education, fire and police protection, expenses of various state institutions, maintenance of highways, and other services which benefit the people as a whole. When taxes increase until they are out of proportion to the services received by the citizens, then the reasons for such an increase in taxation should be found. By taxation *we mean the compulsory contribution of wealth from citizens for the support of the Government.*

As the population and wealth of our country increased, the revenue paid to the Government also increased. Finally, the funds entrusted to the Government became so large that it became necessary to find some means, different from methods formerly used, for handling these funds. Economists and others interested in public finance realized the need for greater care and efficiency in the expending of public money. The urgency of this need resulted in the adoption of the budget system. The administrative branch of the Government prepares the budget, which is a document showing the organization of the Federal Government, all of its departments, and the functions performed by

each office, bureau, or commission. The budget *may be defined as an itemized statement showing the systematic planning of the anticipated revenue and expenditures of a government for the coming fiscal year. Today, most governments have adopted the budget system for handling public finance.*

This chapter deals with the various methods used in providing revenue for our country's needs and the relation of these needs to the Government expenditures.

Unit 1. Public Finance Defined

Public finance is one of the subjects included under economics in which much specialization is being done. The word *finance* is used in many different connections, such as private finance, corporation finance, high finance, and public finance. In this chapter it is used in only one sense—public finance. In our discussion, *public finance* consists of all matters pertaining to (1) the revenue or income received through taxation, loans and credits; and (2) the expenditures of these public funds by the State.

Before attempting a more exact definition of the term *public finance*, let us briefly review the history of the subject. With the rise of the State during the Middle Ages, there developed an economic system known as *mercantilism* previously discussed in this text. It was pointed out that the mercantilists gave a great deal of attention to ways in which the State could be supported and they also had a great deal to say on the subject of taxation.

About the time that mercantilism began to decline, there arose on the continent of Europe a group of writers known as *cameralists.* They held that all civic questions and problems are centered in the State. Since the State was all-important, then the means providing for its support (the revenue of the State) was the foundation upon which all welfare rested. As a matter of fact the writings of the cameralists covered all state activities and were supposed to be an analysis of the work of the state and a guide for those who performed it.

The next step taken in the progress of public finance was the work of Adam Smith who wrote his *Wealth of Nations* in 1776.

This work exerted a great influence on public finance. One of the outstanding points in Smith's treatment of the subject is that, unlike his predecessors, he did not consider the State the all-powerful organization that could take all that it saw fit from the people through taxation; he believed that the State's first responsibility was the well-being of its citizens.

Adam Smith held that the State should assume certain obligations: (1) carry on public works that seemed necessary; (2) maintain justice; and (3) defend the country; otherwise he accepted the laissez-faire attitude, that the State should keep hands off the private affairs of its citizens.

Men and women trained in public finance will almost always find a demand for their skill in some one of the great number of Government units. But any student who desires to enter the field must expect to take extensive training in all of the following related subjects; in addition he should have a considerable amount of experience.

KEY POINTS IN UNIT 1

1. *Public finance* as discussed in this chapter refers to governmental functions dealing with the raising of revenue and the spending of funds entrusted to the Government.
2. On the continent of Europe during the period paralleling our Colonial history, there was a group of writers known as *cameralists.*
3. The cameralists maintained that the State was the center of all civic problems; therefore, revenue for support of the State was the foundation upon which all welfare rested.
4. In his book *The Wealth of Nations*, Adam Smith, sometimes called *the father of economics*, took a viewpoint opposing that of the cameralists. To him, the first obligation of a national government was the welfare of the citizens.
5. Adam Smith did not look upon the government as an all-powerful organization with the inherent right to take all the taxes that it saw fit.
6. According to the views held by Smith, the government should assume certain obligations for the public welfare, such as: (1) carrying on necessary public works; (2) maintaining justice; and (3) defense of the country. Further, he believed the government should not interfere in the private affairs of citizens.

Unit 2. Government Expenditures

Government expenditures may be classified in various ways. One classification is functional. By *functional* we mean what the Government does; that is, the type of duties and activities carried on by the Government. Still another classification is made on the basis of showing how much of the benefit from the expenditures goes to the individuals and how much is for the common benefit. For example, a pension granted to a former soldier may be considered as illustrative of a benefit intended for an individual; mothers' pensions can also be included under this head. Other benefits may be considered as both for individuals and for the common benefit. This may be illustrated by the judicial system whereby both the public and individual may receive benefit; road building is another example, for while the public receives benefits, the adjoining property owners are especially benefited. There is a continual tendency for services that benefit the public to develop and enlarge; as for example the school system, which is now almost entirely a public school system.

KEY POINTS IN UNIT 2

1. Governmental expenditures may be classified as: functional, common welfare, individual, and a combination of common and individual welfare.

2. *Functional expenditures* are those concerned with types of duties and activities carried on by the Federal agencies while spending the money entrusted to the government.

3. *Common-welfare expenditures* are those which benefit the community or country as a whole; for example, the public school system.

4. *Individual-welfare expenditures* benefit an individual only; for example, soldiers' or mothers' pensions.

5. A combination of the *individual- and common-welfare expenditures* serves a double purpose; while benefiting the community a service may also benefit an individual; for example, judicial services, or the building of a road that increases the value of private property.

Unit 3. Size and Direction of Expansion of Government Expenditures

During the present century Government expenditures of the United States have been progressively expanding. In the first twenty-five years of the century, surveys made in a number of selected cities showed that these expenditures had tripled. The services provided by the municipalities that were thus affected were such as sanitation, education, correctional institutions, and relief for unemployed persons.

Some further causes for this increase of Government expenditures must be found. During the period from the beginning of the present century, especially up through the first twenty-five years, there was a considerable expansion of population. This meant that since new areas were being occupied it was necessary to set up new Government units or expand those already existing. Among the Government services that required expansion due to increase of population were schools and highways.

Another cause for the increase of expenditures can be found in the fact that the period under consideration has been one during which, up to 1920, there was a rising price trend. This meant that the Government found itself, just as in the case of individuals, getting less for the money it spent and was forced, therefore, to spend more to secure those commodities and services which were considered necessary.

The question may now be raised, whether or not it is possible to decrease these social services provided by the Government, such as in the field of education, the care for defectives, relief, and the highways as arteries of communication and thus lower the amounts that are expended by the Government. The United States has many men thoroughly trained in the field of public finance, economists who know not only the historical background of the subject, but all the details of conditions in the United States.

In looking for an answer to this question we will give the position of three men, one an expert in the field of public finance, Professor Lutz,[1] of Princeton University and two economists who have not specialized in the field but have dealt with it in a general way, Professor Gemmill of the University of Pennsylvania and Professor Blodgett of the University of Illinois.[2] Turning first to Professor Lutz, who holds that the increased governmental expenditures which can be classified as for social welfare have grown from conditions that have come to prevail and are inevitable; that the amount the Government must spend may well increase steadily; and that this will mean a rising standard of living since the major part of the expenditures are for the common benefit. While Professor Lutz thus endorses the Government expenditures that benefit society, he does not fail to emphasize the need for more care and efficiency in the expending of public funds.

Gemmill and Blodgett are recognized authorities in the field of economics. They also hold the position that the need for our public expenditures has come upon us unavoidably as a result of our expansion and higher standard of living. They further maintain that education, care of defectives, and provision for delinquents cannot be neglected. Under the head of *Education* come not only our public schools, but our great state universities and normal schools. No citizen of any one of the 48 states would today contemplate crippling the activities of any of these institutions. Therefore, these economists hold that the satisfactions derived from these Government expenditures by those who receive them are greater than the decrease in satisfaction on the part of those who pay taxes to provide them.

The taxpayer should be a cheerful taxpayer, for as a matter of fact there is no dollar he expends privately for which he receives greater services than for each dollar he pays in taxes; these services include education, police protection, fire protection, public roads, and public libraries. But the taxpayer should be intelligent enough to interest himself in the entire community welfare and know exactly how his money is being spent by his government. The pie

[1]Lutz, Harley L., *Public Finance*, p. 77, 1936.
[2]Gemmill, P. F., and Blodgett, Ralph H., *Current Economic Problems*, p. 211, 1939.

figure shown in Fig. 46 does not represent any actual state, but suggests the way in which a citizen of a state should keep himself informed as to how every dollar of his tax money is spent. Some states may have other items than those indicated here and the percentage of the whole dollar expended may be entirely different from that shown here. This figure represents a state government expenditure, not the Federal Government. If you wish to make a similar diagram

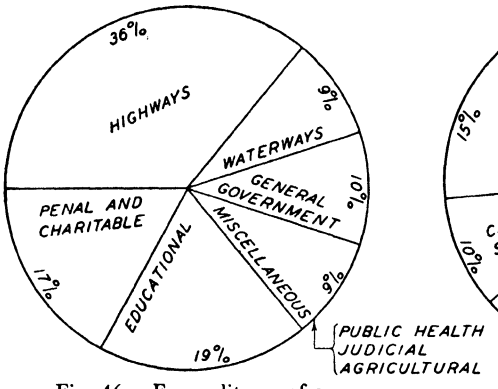


Fig. 46. Expenditures of a State Government

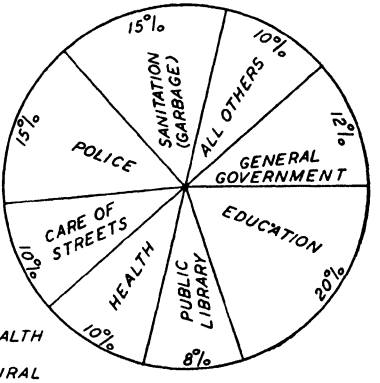


Fig. 47. Expenditures of a Municipality

for your state, the information can be secured through the office of your state treasurer. The percentages used here are assumed on the basis of what is normal.

Another diagram, Fig. 47, illustrates the expenditures in a municipality, which would necessarily be quite different from those of a state, as the activities of the city serve other needs. The types of expenditures and the percentages used here are assumed.

KEY POINTS IN UNIT 3

1. Government expenditures in the United States have increased steadily in recent years. Surveys show municipal expenditures tripled during the years 1900–1925.

2. Municipalities which showed the greatest increase in governmental expenditures had provided additional public services in: sanitation, education, correctional institutions, and relief for unemployed.

3. Some increase in Government expenditures can be accounted for by increase in population. Immigration alone added some 10,000,000 to our population during the first decade of this century.

4. In the development of new areas, such as those in western states where irrigation projects were undertaken, Government expenditures increased because of such additional services as expansion of school systems and highway construction.

5. Increased Government expenditures during the present century are partly due to an increasing price trend; as in the case of an individual, the Government receives less for what is spent.

6. In his book *Public Finance*, Professor H. L. Lutz of Princeton University, maintains that the increase in Government expenditures is inevitable, due to the higher standards of living and the assuming of additional public responsibilities by the Government, such as providing institutions for defectives and delinquents, and caring for orphans and other dependents.

7. However, though Professor Lutz believes that expenditures which benefit society as a whole are desirable, he emphasizes the importance of greater care and efficiency in expending of public funds.

8. Classification of expenditures by state and municipal governments differ because these branches of government perform different services for the public.

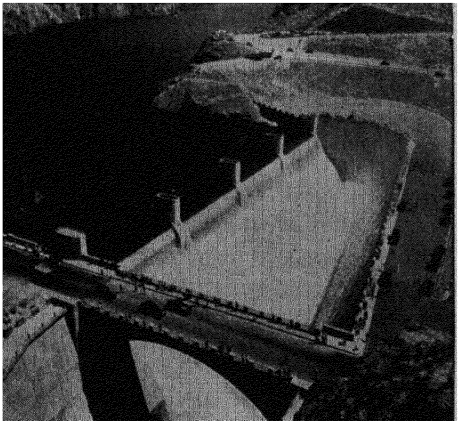
Unit 4. Government Income or Revenue

A. The Public Domain.
B. Taxation.

A. The Public Domain. It is not possible to trace in this volume the long history of the public domain so far as agricultural lands are concerned, but there are few states in the Union which have not had at some time in their history considerable areas of land that were disposed of by the State—sometimes as free land and in other cases at extremely low prices. After the close of the American Revolution, a considerable amount of land came into the possession of the thirteen United States of America due to the recognized independence of the thirteen colonies. This public domain belonged to the Federal Government and not to any one state. As the country spread westward, other large tracts of land came under Government control. Some of this was given to support education in the various states, and in many cases much land became a source of

permanent revenue to the people for education. Minnesota in 1926 had $38,800,000 in its school fund as the result of the selling or leasing of their educational grant lands. In other cases land was turned over to the railroads for little or nothing in order to secure expansion of the transportation systems and aid in settlement of unoccupied territory.

Before giving up practical control of the agricultural lands originally possessed, the Government took measures to retain some portion of the forest lands. However, there has been a constant struggle on the part of private interests to gain possession of the timber and water power on Government lands.



Underwood & Underwood

Public Water and Power Project

It has been estimated by reliable authorities that up to 1930 the public lands had brought to the Government only about 100 million dollars. This does not indicate any considerable profit; in fact when the Government adopted the policy of giving the land away, it necessarily could not bring in any considerable revenue to the Government. As pointed out by Professor Lutz, it may seem a great thing to have secured the settlement of the West by giving away such great areas of land, but the history of that period shows that there was much fraud and greed on the part of some of those who received this paternalistic treatment from the Government.

B. Taxation. The compulsory contribution of wealth from citizens for the support of the State is known as *taxation*. Primarily, the purpose of taxation is to meet the expenses of Government services that are common to all citizens. Taxes, then, are to defray the expenditures made by the Government when it is acting in the interest of all, such as providing public schools, fire and police

departments, public libraries; these are supported by taxation and are free to every citizen whether he pays heavy, little, or no taxes. However, this does not mean that any individual citizen exercises any choice in the matter of paying taxes; if he is eligible to be taxed, taxation is compulsory, as stated in the definition; that is, it is a personal obligation to the State.

As explained in an earlier chapter, national income consists of all the commodities and services produced within a given time, such as a year. It was found that our national income, amounting in some years to $80,000,000,000, is divided among the factors of production—land, labor, capital, and management. It is the fund from which rent is paid to landlords, wages to laborers and enterprisers, and interest to capitalists. The relation existing between taxation and national income lies in the fact that taxes are paid either by individuals or corporations, and are paid out of the amounts that have been received as income by the factors of production. It is estimated that in normal years about one-eighth of the whole national income is paid to the Government in the form of taxation. In other words, assume the national income for the year is $100,000,000,000 and this is a normal year, the Government will draw something over $12,000,000,000 in taxes.

There are several forms of taxes. The *property tax* is a form of taxation that came into existence early; it usually includes all forms of both real and personal property, tangible such as farms, and intangible such as stocks and bonds. In many states of the Union the property tax still plays a prominent part. In other states the property tax for state support has been at least partially replaced by a state income tax and the property taxes are used for local purposes. There are many criticisms of the property tax. It is fairly easy to ascertain tangible property for tax purposes, but this is not true of intangible property. If there is to be a fair system of taxation, all property must be declared; otherwise, the burden of taxes may fall most heavily on some who are least able to bear it. Some people avoid payment of taxes on property by investing in tax-exempt bonds such as Federal bonds and those of certain states, counties, and municipalities. Though there are many defects in the way property tax is administered, it still plays a large part in the tax system.

Another important tax is the *income tax*. This form of taxation is not new and is one of the chief characteristics of the present tax systems. The income tax has a very definite element of democracy in it. It is a tax laid on every person who has ability that can be considered taxable. Such a person, under this principle of taxation, must pay, according to this ability, toward the support of the Government under which he lives. It is at once evident that if this principle is carried out it does away with the exemptions that were formerly allowed to the clergy. Every individual pays his share according to the income he draws. While many states have a state income tax, the Federal income tax is the one probably of greatest interest to the public.

In some states and local governments a *poll tax* is levied on individuals. The tax is usually on men of voting age. Some economists have claimed that the poll tax, since the same amount is levied on each person, is a tax that has an element of equality in it. It is one of the oldest forms of tax. However, if the payment of this tax is made the basis of the right to vote, as it is in some parts of the United States, a question arises as to whether or not, when great inequalities of wealth exist, the tax is a mark of equality or great inequality, since one who is unable to pay it forfeits the right to vote.

The subject of *corporation taxes* is so complicated that no definition is attempted here except to mention the fact that such taxes may be laid either against the value of a corporation or against its gross income. Formerly it was believed that owners in corporations would include, in their personal-property tax report, their holdings in corporations. This did not always work out satisfactorily and more specific methods of taxing corporate property were established so that the gross earnings of such corporations came under taxation the same as the earnings of individuals. What is known as *special franchise taxes* have also been tried, especially in New York, in reference to utilities, but the difficulties in setting the tax on an assessed value of the franchise have been so great that the method has not proved popular.

It has been estimated that the corporation income tax accounted for approximately 21 per cent of the entire Federal tax in 1938. In

the tax system of the United States it is found that a large part of the revenue is secured from the corporate income tax, the license taxes, and the sales taxes; that comparatively little was formerly derived from personal income taxes, and the largest part of all comes from the property tax. The exact numerical relation of these taxes cannot be estimated.

Payroll taxes produced about 12 per cent of the Federal Government income in 1938. The Social Security Act and Railroad Retirement Act provided that the payroll tax should be collected to form the reserve required by those Acts.

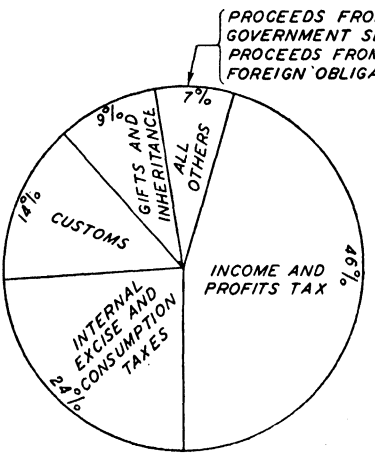


Fig. 48. Federal Government Receipts in a Representative Year

Estate taxes bring in about 7 per cent of the Federal income. They are necessarily irregular. The incidence of the tax rests entirely on the person who receives the estate. *Incidence of taxation* means the falling of a tax on a given person as a burden which he must pay. It is called *final incidence* when he is unable to shift the burden onto someone else. As previously pointed out in our discussion, a tax on rent falls on the landlord and this is a tax burden which he cannot shift.

The *sales tax* is one imposed on the consumer of goods and varies from 1 to 3 per cent on retail goods. This tax rests most heavily on the poor who spend a larger part of their income on retail goods than do the well-to-do. If a person takes the position that taxes should be levied according to ability to pay, then he must concede that the sales tax should be removed.

Besides the sources of revenue already dealt with there are others including customs, fees, excises, and tariffs. Such sources of revenue are so numerous that it is not possible to deal with all of them here.

The diagram, Fig. 48, shows the sources of revenue of Federal Government, in what is assumed to be a representative year.

KEY POINTS IN UNIT 4

1. After the close of the American Revolution, large tracts of land came into the possession of the original thirteen colonies. This public domain belonged to the Federal Government, and not to the individual states.
2. As the population of the country increased and spread westward, other tracts of land came under the control of the Government through the purchase of territory and otherwise.
3. Some of this Government land was free to homesteaders for agricultural development; other land was given to individual states for educational purposes; and still other tracts were given, or sold at low cost, to railroad companies to encourage expansion of transportation.
4. Special studies of this period of our history, made by recognized authorities, show that greedy and unscrupulous men often defrauded the Government by taking undue advantage of the benevolent privileges extended to them.
5. Compulsory contributions by the citizens to the Government through taxation are intended primarily to defray the expenses of Government services to the people as a whole.
6. Various methods of raising revenue have been tried by the tax-levying branch of the Federal Government. Prominent among these methods are taxes on: property, incomes, profits, and inherited estates. State taxing laws follow much the same patterns as those of the Federal Government.
7. A *poll tax* which some states and local governments levy on individuals is called by some economists an *equality tax*, since the amount of the tax is the same for each person taxed. This tax usually applies only to men and in some states payment of the tax qualifies a man to vote.
8. In some states where large industrial plants are located, a *corporation tax* is an important source of revenue. Some taxing schemes are local in character; for example, the *franchise tax* on utilities in the state of New York.
9. Other sources of Federal revenue include: customs receipts, excises, license fees, and tariffs.
10. The sales tax is felt most by poor people who spend the largest percentage of their income for retail goods, such as food and clothing.

Unit 5. Public Credit or the Government Debt

When necessary the Government can expand the funds available for expenditure through the process of borrowing. This becomes especially necessary at a time when an emergency such as a war must be financed. Public credit does not differ in principle from private credit. The Government is the debtor, and usually citizens of the nation are the creditors. War has been mentioned as an emergency that may compel a government to expand its borrowing. A time of extreme depression is also such an emergency. When large numbers or workers are unemployed, it seems necessary to finance public works in order to put men to work. Exactly as in private credit, the debts of the Government must be paid, unless repudiated, and arrangements must be made to meet these Government obligations when due. One method of preparing for the payment of the debt is to create a sinking fund; this simply means indicating certain funds to be set aside for the redemption of the debts.

There are numerous forms in which loans may be secured. These include short-time loans, long-time loans, treasury certificates, and treasury notes. The ways of making loans are so numerous that no attempt is made here to handle more than one, and that briefly: financing through issuing Government bonds. For some time the Government has been selling bonds of various denominations ranging as low as $25 and up to $1,000. Suppose one wishes to buy a $25 bond. At his bank or the post office he can buy such a bond for $18.75; its value will be $25 some time in the future when the stipulated interest has accumulated sufficiently to make the bond worth $25. These bonds are tax exempt. There have been many criticisms of tax-exempt bonds, but the fact that they are tax exempt is justifiable on the basis that the interest rates on these bonds are low and if a tax were placed on them there would be scarcely any return to the bondholder for the time his money is invested. Purchase of such bonds in time of war is held to be a patriotic duty.

KEY POINTS IN UNIT 5

1. When it becomes necessary to meet an emergency, the Government of the United States can borrow money; for example, in time of war; or in time of some other national catastrophe, such as a depression, when a great many people are out of work.
2. Oftentimes the Government borrows from the citizens, who then become the creditors of the Government.
3. Public credit is the same in principle as private credit. Loans may be secured in various ways.
4. One way of raising Government funds is through the selling of Government bonds, which are in the form of promissory notes.
5. At times Government bonds can be bought in denominations as low as $18.75; these at maturity are worth $25. Small denominations make buying bonds an attractive form of investment for many people, especially those with comparatively low incomes.
6. Another attractive feature of the Government bond is the fact that these are tax exempt. Since the return on the investment is small, fewer people would buy them if they were taxable.

Unit 6. The Budget

The history of the development of budget making and explanations of the methods used make up an entire field of study requiring much knowledge of the organization of government, general economics, public finance, and statistics.

The *budget* is a document that should be prepared by the executive. He is in contact with all administrative officials. All past items of expenditures in a department are on record in its administrative offices. It is here also that plans for future expenses must be made. A budget for a Government shows the Government organization; that is, it shows all offices, bureaus, or commissions, and the functions performed by each. Since the budget must supply a large amount of information as to the past and the probabilities of the future, the document must be complete and cover all essential fields.

After the budget has been drawn up, it is submitted to the legislative body of the government unit for which it was drawn up—the

nation, a state, county, or municipality. The budget is then examined by various committees and may be passed in full as it stands, but usually some modifications are made. Aside from all that has been suggested as included in the budget, it should also include some suggestions as to sources for its financing. In fact the budget has been defined as a document that shows the expenditures and revenues of a government.

There are three stages in budget making: (1) the budget must be based upon and drawn up in accordance with all the information available concerning the expenditures and revenue of the government; (2) the budget must be passed upon by a legislative body; (3) proper administrative bodies must carry out the provisions of the budget.

KEY POINTS IN UNIT 6

1. When the revenue of the United States became so large it was difficult to handle under the former system, a different method had to be found.
2. In 1921 the budget system was adopted by a law to make the procedure legal.
3. A budget is a plan for financing a government for the coming year, including anticipated expenses for each department and the estimated revenue.
4. A budget shows the organization of a government, the functions of the various departments, and the anticipated revenue and expenses for the coming fiscal year.
5. Under this system the Bureau of the Budget supervises the preparation of the budget. In the case of the United States Government, the director of the Bureau of the Budget is appointed by the President.
6. The budget is presented to Congress by the President. Congress may approve or make changes in the budget, and, in case of veto by the President, can pass the budget by a two-thirds majority.

QUIZ QUESTIONS ON CHAPTER XV

1. *What is the meaning of* public finance *as used in this chapter?*
2. *Who were the cameralists? What did they claim regarding the Government's relation to the people?*
3. *What writer opposed this view? Explain his attitude toward the Government's relation to the public welfare.*
4. *Name and explain four classifications of Government expenditures.*
5. *Name three or more causes for the increase in Government expenditures in the United States since 1900.*

6. *Name three different methods used by our Government for raising revenue.*

7. *What tax is sometimes called an* equality tax? *Explain one way in which this tax may become an* inequality tax.

8. *What form of taxation is felt most by poor people?*

9. *How does the Government usually raise funds to meet an emergency such as a war?*

10. *When was the budget system adopted in the United States?*

11. *In what branch of the Government is the budget prepared?*

12. *Name two important factors shown in the budget.*

13. *Who presents the budget to Congress?*

14. *Can Congress change a budget without the approval of the administrative branch of the Government? Give an example in support of your answer.*

Chapter XVI

DEMOCRATIC ECONOMIC PLANNING

OBJECTIVE: Economic planning under a capitalistic system in a democracy; attitude of economists and industrialists toward planning.

PREVIEW: *In the development of our present-day economic systems, various experiments have been tried. In the struggle for existence, human society has traveled over a long road from its primitive cave-man days to the twentieth century. During this extensive period of time numerous small and weak nations have grown into powerful empires under the guidance of able leaders. However, in the course of time, all these empires have collapsed one by one; and every fallen empire has been replaced by a new political and economic order. In the world today the outstanding types of political and economic systems are represented by: the democratic capitalistic system of the United States; the Russian Union of Soviet Socialist Republics, or sovietism; and the German National Socialists, or Nazism.*

Theoretically, under capitalism there is no central planning by the Government. It is assumed that individual enterprise and initiative characterize this type of economic system. Nevertheless, under capitalism, corporations have sometimes developed into a close approach to monopolies. Hence, some kind of regulation on the part of the state or Federal governments became necessary in order to restrain unfair industrial practices. As far as economic planning is concerned, it is recognized that within every great industry there must be a considerable amount of planning done by the management. Through the cost-accounting department and the sales department definite plans are made as to the amounts that are to be produced and marketed. Any individual firm that did not make such plans would soon fail to be a going concern. As a matter of fact, the larger the industry, the more carefully must the management plan for each step in production and sales. However, it must be remembered that this planning is done by men with a thorough understanding and knowledge of the business for which they are planning.

Under Nazism, planning is carried on in great detail by the government until all citizens are controlled according to the will of the political leaders. A similar system is found under sovietism, with both political and industrial democracy claimed by the leaders; yet all industries are under the control of

the government, with political leaders planning the operation of the country's industries and the lives of the workers.

In discussing the theory of economic planning, one economic writer has aptly stated, "If you scratch a would-be planner you usually find a would-be dictator."

This chapter deals with the subject of democratic economic planning and the various attitudes on the part of economists and industrialists toward planning.

Unit 1. Present Status of Economic Planning

It has been pointed out that the outstanding types of economic systems in the world today are represented by: *capitalism*, *sovietism*, and *Nazism*.

Theoretically, under capitalism there is no central planning; individual enterprise and initiative are assumed to characterize the system; in other words, it is held that any individual may do anything he may desire to do, providing it does not injure anyone else. Gradually, as the great aggregations known as *corporations* have grown up and become more or less monopolistic in character, certain controls by the state and Federal governments have developed.

It is recognized that within every great industry there must be a considerable amount of planning done by the management. Through the cost-accounting department and the sales department definite plans are made as to the amounts that are to be produced and marketed. Any individual firm that did not make such plans would soon fail to be a going concern. As a matter of fact, the larger the industry, the more carefully must the management plan for each step in production and sales.

Under sovietism there is centralized economic planning. Both political and industrial democracy are claimed as a part of the soviet program. As under capitalism, great industries have grown up, and these require a great amount of planning, but this planning is in the hands of the government.

Under Nazism both political and industrial democracy are denied, in fact democracy is one of the principles that Nazism seeks to destroy. Planning is carried on in great detail and is being

handled within each industry by the government, the government in this case not being a representative body as in the United States, but made up of a dictator and his agents. That portion of the returns from the great industries of Germany which is not used to carry on armament production is turned over to the dictatorial group that centers around the so-called *fuehrer*.

KEY POINTS IN UNIT 1

1. Typical economic systems of the world are: *capitalism*, *sovietism*, and *Nazism*.
2. Theoretically, *capitalism* is characterized by individual enterprise, individual initiative, and no central planning.
3. Under a capitalistic system it is possible for a corporation to grow so large it approaches a monopoly. When this occurs, it is necessary for the state of Federal Government to devise some form of regulation to restrain unfair industrial practices. The antitrust laws and the Federal Trade Commission serve this purpose in the United States.
4. Every great industry is operated according to plans made by the management. The larger the industry, the more necessary is careful planning of production and marketing. The managers are men who have a thorough understanding and knowledge of the business for which they plan.
5 Under *sovietism* all political and industrial planning is done by the political leaders. Although the claim is made that the government is a democracy, all industries are under direct control of the government, which also regulates the living and working conditions of the citizens.
6. Under Nazism both political and industrial democracy are denied. Planning is carried on in great detail and is handled by men who represent the government, which is a closely co-ordinated dictatorial group.

Unit 2. Economic Planning in the United States in Early Part of the Great Depression

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As the economic depression that began in 1929 progressed, more and more the question arose among economists and men responsible for affairs of the State as to the cause of the calamity that had overtaken industry, and some way to recover and avoid a recurrence was sought.

In the autumn of 1929 President Herbert Hoover appointed a committee to make a survey of the social trends in American civilization in the last third of a century. The committee consisted of Professor Wesley C. Mitchell of Columbia University, chairman; Professor Charles E. Merriam and Professor William F. Ogburn of the University of Chicago; Howard Odum of the University of North Carolina; Dr. Alice Hamilton of the Harvard Medical School; and Shelby M. Harrison, Director of the Russell Sage Foundation. The report[1] was printed in January, 1933, in two volumes later supplemented by thirteen special studies with supporting data. Some of the important findings of the committee may be summarized:

In discussing the problem of economic balance, the members of the committee held that the effective limit to production is what the markets can take at prices that are profitable, and that the purchasing power of consumers sets that limit. Despite the Department of Commerce, business statistics, and business forecasting, it is still difficult to maintain a balance between demand and supply, between income and spending of such income, between earning power of securities and their prices, and between available bank credit and the credit business needs.

The committee pointed out that to establish and maintain the necessary balance, economic planning is required, but they held that the problems connected with such planning are so great, that little more could be done than to plan for planning. However, they considered it probable that, while no complete system of planning could be organized immediately, modest undertakings would be devised to make the system work more effectively.

An example was given of the way in which the Government mobilized industry in time of World War I, organizing various boards and fixing prices, and the question was raised as to whether increasing the social welfare may not be considered as good reason for securing more effective working of the economic organization as was war.

The conclusion of the report stated that in order to secure a

[1] *Recent Social Trends in the United States.* Report of the President's Research Committee on Social Trends, 1933.

greater measure of public welfare, probably America will move in the direction of a greater amount of public control, without any curtailing of private property or individual initiative.

In discussing the relation of government and business the committee points out that undoubtedly there will be a variety of degrees of government expansion and contraction in its relation to business.

In an article in the *American Political Science Review*, Lewis L. Lorwin, of the Brookings Institution, points out the difference between the recovery program of the United States and the movements in Western Europe. He says:[2]

> There are basic differences between the New Deal in America and the social movements of Western Europe. The peculiar features of our New Deal are its greater flexibility, its spirit of tolerance, its respect for individual and group rights, and the effort at voluntary action. The reasons for these features are the vague demarcations between economic groups and classes which have been the foundation of our democratic traditions, the faith in the dynamic possibilities of our industries, the survival of frontier mental doctrines and theories.

He then goes on to ask the question as to whether or not the "plain people" of America can build up planfully and peacefully a new economic equilibrium based on principles which reconcile "popular control with governmental leadership, individual efficiency with group responsibility, economic security with orderly change, and social solidarity with realistic freedom."

The members of the Columbia University Commission, in their report embodied in *Economic Reconstruction*, discussing the Recovery Program, state[3] that the times demand economic planning, that it should be looked upon as an experiment in statecraft, and that any criticisms they may make are offered with the desire that the experiment may succeed. They further state that the prevention of certain competitive practices as well as the prevention of undercutting in prices and wages no doubt are activities that have a humanitarian justification, but that any rise in prices brought about does not indicate returning prosperity, that recovery can only be assured with increased purchasing power and increased demand.

[2]Lorwin, Lewis L., *American Political Science Review*, pp. 21 and 22, February 1934.

[3]*Economic Reconstruction*, Columbia University Commission, report on Recovery Program, pp. 16 and 17, 1934.

After discussing the way in which planning evolved in individual enterprise, touching not only the technique of production but industrial relations, sales, and finance as well, the Commission points out that in such businesses the executives have given up any concern with details and centered their attention on larger questions. So in planning on any national scale, the aim would be to secure an equilibrium between the factors that are necessary to industry; any regulation would extend to systems, as for example, systems of credit, of currency, and banking. Such planning, they hold, would in no way reduce initiative.[4]

With regard to the National Recovery Act, the Commission urged that the code-making facilities should not be used for the competitive limitation of output by organized industries.[5]

The report further recommends that measures be taken to maintain an equilibrium in the cost-price structure and in particular to maintain a moving balance between saving, consumption, and capital expansion. To secure this equilibrium, large-scale corporations should be regulated, not only as to price-fixing policies, but also as to their methods of financing.[6]

A five-year plan for planning has been proposed by Henry S. Dennison, president of the Dennison Manufacturing Company of Framingham, Massachusetts. He considers national planning on any considerable scale is such a large undertaking that it requires preplanning. His plan provides for a national planning board of five or seven men, who would have the widest range of knowledge, appointed by the President. In each of the five years devoted to this pre-planning, a certain subject would be taken up by the board. These subjects would include stabilization of the coal, oil, and textile industries; the improvement of the antitrust laws; limiting speculation in the stock market; government supervision of power production; and the study of income, agriculture, competition, the effect of labor laws, and the possibility of business forecasting.

In his book *Business Looks at the Unforeseen*, Wallace B. Donham, Dean of the Graduate School of Business Administration at Har-

[4] *Ibid.* pp. 55–57.
[5] *Ibid.*, p. 73.
[6] *Ibid.* pp. 74 and 75.

vard University, states that national planning is a subject of interest to him because he believes that the laissez-faire policy, if attempts are made to carry it out when such rapid changes are going on in industry, will stop industrial evolution and lead instead to revolution.

In *Can Business Govern Itself?* Edgar L. Heermance, industrial engineer and writer, points out that there is dissatisfaction with the results of free competition and that modifications and substitutes are being worked out. The adoption of a code by a trade group is not all that is required to bring about self-regulation in industry. The use of scientific methods in business management, the habit of co-operation, and planning mechanisms must be developed. Writing in February 1933, he holds that out of the 500 trade associations of manufacturers, representing 1,000 lines of products, perhaps not more than 50 are prepared for budgeting production, and that the movement will probably extend by imitation and rather slowly.

KEY POINTS IN UNIT 2

1. During the depression which began in 1929, President Herbert Hoover appointed a committee to make a survey of social trends in American civilization for the last third of the first century of our machine age.

2. As a result of the findings of the President's committee, members reported (1934) that the effective limit to production is what the markets can take at prices that are profitable, and that the purchasing power of consumers sets the limit on production.

3. Although the members of the committee favored planning to maintain an economic balance, they admitted that in 1934 problems in connection with such planning were so great as to make effective planning impossible.

4. They cited, as an example, the handling of economic problems during war emergencies when the Government mobilizes industry and organizes various boards for fixing prices.

5. The question is raised by one economist as to whether or not the people of America can build up a new economic equilibrium based on principles which reconcile popular control with government leadership, individual efficiency with group responsibility, and economic security with realistic freedom.

6. The Columbia University Commission in 1934, in its Economic Reconstruction report, stated that economic recovery could only be assured with increased purchasing power and increased demand for consumer goods.

7. Many economists agree that some form of economic planning is needed for America in order to provide a better balance between supply and demand.

8. One such economist suggests that, to assure this equilibrium, large-scale corporations should be regulated, not only as to price-fixing policies, but also as to their methods of financing.

Unit 3. English and Canadian Opinion on Planning at Time of the Great Depression

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Since Britain is a capitalistic democracy it is of interest to note public opinion there on planning.

In his book *Reconstruction, a Plea for a National Policy*, Harold MacMillan, member of the British Parliament, director of the Great Western Railway Company, an honor man of Balliol, Oxford, says that man's struggle with scarcity has ended and the problem of production has been solved, that the breakdown has come in the problem of distribution.

He points out that while one may appreciate the energy and drive of rugged individualism, one cannot fail to realize the contradictions of laissez faire. He holds that the idea of planning is definitely gaining ground as the real problem facing the nation is recognized; it is an effort to regulate production in accordance with effective demand. The only thing new about it is that circumstances require that there should be a co-ordination of private effort in order that equilibrium can be secured. Such equilibrium could formerly be left to automatic regulation through price fluctuations, but too many exceptional factors have entered in to make this possible at present.

In a lecture delivered at McGill University, April 1933, on "Modern Mechanization and Its Effects on the Structure of Society," Arthur Salter, British economist said:

> Ordered human progress, I have suggested, requires two conditions; the development of man's power to make and create, by individual or group, action; and, his power to regulate these specialized activities so that they do not destroy

each other and us. The whole of our trouble now consists in the fact that man's ability in this second sphere has lagged behind what he has attained in the first. Science, research, the discovery of nature's secrets still doubtless have rich gifts in store; but they bring us more harm than good unless we can use and control what we already have better than we do now. It is more important now that we should learn how to control, use, and organize than how to make more abundantly.

I mean the creation of a general intellectual and social atmosphere which will encourage all those who receive a university education to remember that, in whatever sphere of activity, they may in future occupy a directing position, their function will be a double one; not merely that of efficiently conducting their particular business but also of taking part in a collective control which will secure that it is in the public interest. A system of collective economic self-government, associated with but not in detail directed by the State, which is, I believe, the only way in which we can combine freedom with efficiency under the conditions of the modern world, will need new resources of constructive ability and character to which a university education can make an invaluable and indispensable contribution.

In his book *The New Deal in Canada*, Major Eric Harris, manager of a large industry in Ontario and a graduate of Trinity College, Toronto, points out that Canadian manufacturing finds itself in difficulties, and that for its own sake, as well as for the country, it must change its ways, and submit to some degree of regulation. It can, and should, be a control intelligently exercised by industry itself, with merely an inspection by the government to see that the ends desired are actually obtained.

Lionel Robbins, professor of economics in the University of London, in his book *An Essay on the Nature and Significance of Economic Science*, points out that one of the difficulties of economic planning lies in the fact that the choices of individual spenders and savers, which are at present the controlling forces, would have to be brought under the control of the planners. He concludes that if you scratch a would-be planner you usually find a would-be dictator.

KEY POINTS IN UNIT 3

1. In a recent book, a British economist states that man's struggle with scarcity has ended; the problem of production has been solved; but the problem of distribution is yet to be settled.

2. Another British economist maintains that man's power to create and produce has gone far ahead of his ability to control, use, and organize what he has learned to produce.

3. The same writer further states that additional scientific research and discovery of nature's secrets will doubtless reveal other rich gifts still held in store, but these will bring man more harm than good unless he can learn how to use and control what he already has.

4. A Canadian writer on economic planning suggests that industry itself would benefit by some degree of regulation by the State.

5. Another British writer points out that the difficulty of economic planning lies in the fact that the controlling forces are the individual choices of the spenders and savers; these, he says, would have to be brought under control by the planners.

Unit 4. Recent Discussions on Economic Planning

Two types of democratic economic planning have been suggested by various economists. (1) It is contended that, since our Government is a representative government and all members of the legislative body are elected by the people, industrial democracy might be secured by leaving the ownership in private hands. For example, in the great corporations today where the ownership is in the possession of thousands of small stock owners these great corporations should be under regulation by some form of Government commission. Since the ownership, though private, is widespread, but since the regulating commission would be a part of our representative Government, it might be held that industry would in this case be really controlled by the people.

(2) Another form of democratic economic planning would be secured by making some arrangement within the industry itself by which all of those who participated in the work of the industry should have a part in deciding on its policies. Shortly after World War I several experiments were put into action in England under what was known as the *Whitley Industrial Council Plan.* The plan provided that the labor unions and the employers'[1] associations should in each industry elect representatives, and that these repre-

[1]Simons, A. M., *Personnel Relations in Industry* (Whitley Plan), p. 19.

sentatives should meet and settle all problems that might come up in the industry. There was to be no compulsory arbitration, and the work of the representative body was to go farther than settle labor questions alone, it was to consider matters that had to do with greater efficiency in the industry. In other words, it was to be a joint management committee in which labor had a share in the managerial function. It presupposed that planning would be carried on to a considerable degree and that the work of the committee would be definitely constructive. While the plan was well received in England it finally worked out only to a limited extent; and where a similar idea was attempted in this country, there was little success, neither of the parties represented on the joint committee seeming to have sufficient training to work out a joint management plan.

In those cases where a joint council was organized the activity centered almost entirely around the questions that had to do with labor, wages, hours, and sanitation, but had little to do with joint management which would have been a step toward industrial democracy. Gradually the unions that took part in these councils became company unions, so that the entire work of the councils was dominated by the employers.

When emergencies arise, such as World War II, it has been found that a considerable amount of planning must be done in order to secure a sufficient amount of commodities and to organize for the production of goods in the quantities and qualities needed, so that these would be ready at the required time. This has been set, by some, as the great test of the relative efficiency of a democracy and a dictatorship with highly centralized planning. The experience gained during World War II seems to prove that a democratic country can organize itself and carry on planning for at least the period of the emergency, though it may be slow in getting started.

One of the really great problems that face the people in the period following the war is whether or not we shall return to the tooth-and-nail struggle in industry or whether within each industry there will be the possibility, under some such organization as the trade associations, to have planning of the industry. If this is to be democratic planning it must mean that labor will have a part in the management and that the small stockholders will use their

vote in the industry in an intelligent way, voting on issues that arise in the industry and on the men who are to act on the board of directors.

Concerning postwar planning, Alvin H. Hansen, professor of economics at Harvard University and special advisor to the Federal Reserve, has prepared a statement for the National Resources Planning Board. He discusses first the necessity for democratic planning to secure full employment as soon as the war is over. He points out that the need for goods in peacetime will be great. To meet these needs certain things must be done. He holds that we do not want a totalitarian state to handle this. We will want freedom of enterprise, freedom for collective bargaining, freedom of choice of occupation, and freedom for co-operative action. If matters are so handled that there is no unemployment, that every man and woman who wishes one has a job, there will be sufficient purchasing power so that industry will continue to produce. It is necessary that private industry and government act together to maintain and increase output and income sufficiently to provide full employment.

Still further following Hansen's line of thought: when the war is over the Government cannot close down all factories and shipbuilding yards that have been working on wartime goods. It cannot remove all economic controls. It cannot escape its responsibility; but to carry on a program of full employment it must have the co-operation of the farmers, labor, business, and the professions.

All this will mean a great demand for the research work of scholars who in the laboratories of the nation discover new techniques and commodities that may aid in raising the standard of living. In conclusion Professor Hansen has made six suggestions as to policies to be carried on after the close of the war so that we may not again fall into a depression, and so that all shall have employment:

1. Retention of progressive (graduated) tax structure and broadened tax base, with major emphasis on the individual income tax.
2. Sharp reduction in defense consumption taxes.
3. Adequate plans by private enterprise for private-investment projects in manufacturing plants and equipment, in railroads, public utilities, and housing.
4. Adequate program of public-improvement projects including a nation-wide development of national resources, express highways, urban redevelopment

(involving among other things outlays in terminal facilities and reorganization of urban transportation), and a reorganized public housing program (including the setting up of a Housing Research Laboratory designed to reduce construction costs and thus enlarge the scope of private housing construction).

5. Expansion of public-welfare expenditures—Federal aid to education, public health, old-age pensions, and family allowances. This involves partly an expanded program, and partly a means of reducing State and local property and consumption expenditures.

6. International collaboration to pursue internal policies designed to promote active employment; to explore developmental projects in backward countries; and to implement ways and means to open outlets for foreign investment, promote world trade and the effective world-wide use of productive resources.

We do not claim that this discussion is an answer to the question of how democratic economic planning will work itself out after the war. We do assume, however, that some means will be found by which every person will have an opportunity to work and secure a living that is of a high standard, and in addition that he will have a part in determining policy in industry. Small stockholders will probably continue as owners in industry, but it must be assumed that they will become intelligent voters in the industry and that their votes will have decisive effects. Groups of capable scholars and real statesmen and representatives of labor and industry have met in the great democratic nations to solve this question of how democratic economic planning can be carried out so that it may go side by side with political democracy at the close of the war.

KEY POINTS IN UNIT 4

1. Since the United States has a representative form of Government, various economists have recommended two types of economic planning which they believe would be workable.

2. In great corporations which are owned by thousands of small stockholders, ownership, though private, is widespread. Regulation of such corporations could be entrusted to a Government commission which would be controlled, theoretically at least, by the people through their ballot.

3. Another type of economic planning suggested by the economists is some sort of arrangement whereby the employees could have a part in the management. One suggested plan is for labor unions and employers' associations to elect representatives to settle all problems which come up within the industry.

4. The economists who make these suggestions assume that after the war some method will be found for providing every person with an opportunity to work and secure a high standard of living.

5. In making the foregoing recommendations, the economists also assume that stockholders will continue as owners in industry but that these will become intelligent voters in the business and that their votes will have decisive effects.

6. In order to solve the problems of democratic economic planning, numerous meetings have been held by capable scholars, statesmen, and representatives of labor and industry to discuss the questions which are raised by such planning and to "plan for planning."

Unit 5. Proposed Postwar Economic Planning[1]

Since the Government is continuously engaged in planning for the proper handling of the country's problems as a whole, we will consider briefly some of the postwar plans which have been suggested for further Government activity. In regard to education, some of the postwar plans suggested as most essential recommend that: at least a high-school education be assured to all youth; the quality of this education must be such that it will meet the needs of a democracy; there should be access to universities and to colleges for all students with ability; a program providing education for adults should be developed.

According to the theory of the National Resources Planning Board, there should be co-operation by Federal, state, and local governments in developing the resources of the various regions. The Board recommends establishment of regional centers for the purpose of making surveys of conditions in different localities, thus making easily available any assistance necessary in helping to solve the various problems of a particular section of the country.

Further recommendations include plans for: carrying on health programs; securing full employment for all who wish to work; providing social insurance; investigating urban and rural housing con-

[1]This summary of postwar planning is based largely on information taken from *Post War Plans of the United Nations*, 1943, prepared for the Twentieth Century Fund by Lewis L. Lorwin, former member of the staff of the Brookings Institution, adviser to the International Labor Office in Geneva, and economic adviser to the National Resources Planning Board in Washington, D.C.

ditions; use of electric power and other available energy resources; developing water resources for irrigation purposes; improving farm lands and conserving forests.

Such extensive planning raises questions as to the proposed relation of the Government to free private enterprise. The continuance of free enterprise is taken for granted by some who hold that the Government will aid such enterprises in all ways necessary, providing these industries are giving all possible service to the public. However, if monopolistic elements develop and the public is made to suffer thereby, then the Government should resort to drastic enforcement of our antitrust laws.

Besides the planning of Government agencies, there are also various social and economic groups engaged in postwar planning. One such group is the National Association of Manufacturers. The main points emphasized by this association are: private enterprise, civil and religious liberty, constitutional representative democracy, and value of profit as an incentive to productive effort. The Manufacturers Association is opposed to: the closed shop in any form; the extension of social security; Government interference in business. This group favors vigorous competition, co-operation with other nations in an effort to maintain peace, and working with international agencies that are striving toward permanent peace as a goal.

Postwar planning is also carried on by a committee from the United States Chamber of Commerce. This committee seems to recognize the importance of postwar planning and takes a position similar to that of the Manufacturers Association. The committee favors tariff laws, and the president (1943), Eric A. Johnston, recommends more co-operation between labor and the Government than has existed heretofore.

Labor is organized under different heads, the most important are: the American Federation of Labor, the Four Railway Brotherhoods, and the Congress of Industrial Organizations. These various groups mostly stand for a free capitalistic system accompanied by some form of Government control and for collective bargaining. Fundamentally, the organizations of American labor contain little evidence of a radical nature. Both the A.F. of L. and the C.I.O.

groups emphasize two factors as important in postwar planning: (1) making of such plans as will assure no unemployment after the war; (2) taking of necessary steps on the part of industry to carry on reconversion of factories to a peacetime basis as rapidly as possible. The C.I.O. also lays much stress on social security as a means of combating unemployment that may result after the conversion of industry to the making of civilian products. The establishment of industrial councils to consider all problems connected with the plant and the industry as a whole meets with the approval of the C.I.O. The purpose of such councils would be to consider and to promote democratic and peaceful relations between employers and employees, which would result in giving labor a part in the management. Other groups are interested in postwar planning, but the most important groups, from the economic point of view, are those which represent employers and employees.

Widespread suggestions for postwar changes are being made in Great Britain. Numerous agencies for such planning have been created and include Ministry of Works and Buildings, Ministry of Town and Country Planning, and the Ministry of Works and Planning. Much is said about the housing problem and the use and improvement of rural land.

In England a continuous income and security from want are considered more important than better housing or better cities and towns. One point that should be especially emphasized in this connection is the fact that the British are planning to give much attention to the improving of agriculture after the war.

Private organizations, both of employers and employees, have progressed much farther in England than in the United States in regard to plans for the postwar period. There are four principal associations of employers. These four organizations include in a fair way most of England's industry and business. One of these organizations, the Federation of British Industries, includes 180 trade associations, two of the main objectives being the regulation of competitive practices and the maintenance of a profitable margin. The Association of British Chambers of Commerce proposes that each industry shall work out its policy and that such policy must fit into the postwar plan of reconstruction as a whole; there should be the

closest co-operation possible between the government and private industry, the government making suggestions on business and industrial policy.

The one end in view in the British planning appears to be that of providing 46 million people continuous employment and as high a standard of living as possible.

With the development of modern techniques, economists fully realize that production sufficient to supply the greater part of all human desires is now possible. Production, then, is not the problem which is to be solved. The real economic postwar problem is the distribution of the social income among the factors of production in such a way that the greatest possible amount of purchasing power may come into the markets to secure goods to satisfy human wants and thus, in turn, continue the production of goods.

British planning also lays stress on the necessity of organizing an international trading system. England for many years has been a heavy importing and exporting country. British economists now hold that exporters must organize themselves to carry on their trade co-operatively, and they assume that there should be a considerable amount of direction and aid from the government. In relation to international trade, it is held that stability should be secured in exchange, and that there should be international agreements to stop speculation in raw materials and foodstuff. In other words, that international agreements should be negotiated in production and marketing.

At least twenty-two great nations of the world are at present engaged in working out plans for the postwar period. A survey of these plans and others already completed was made (1943) under the direction of the Twentieth Century Fund previously mentioned. A careful study was also made by Lewis L. Lorwin in his *Economic Consequences of the Second World War*, published in 1941.

These surveys leave the impression that the world will not return to a purely laissez-faire policy after the close of the war, but will apply to industry a considerable amount of economic guidance.

KEY POINTS IN UNIT 5

1. Postwar plans of the Government include provisions for educational opportunities for the country's youth. Various planning organizations recommend at least a high-school education for all, and a college or university education for those with special ability.

2. Other planning includes provisions for carrying on health programs, securing of employment for all who care to work, providing social insurance, better housing for both cities and rural areas, developing natural resources, improving farm lands, and conservation of forests.

3. Such extensive planning raises the question of the proposed relation of the Government toward free enterprise, which is taken for granted by some planners.

4. In addition to planning by Government agencies, there are numerous groups working on some sort of plans for the postwar period; among these are: the National Association of Manufacturers, the United States Chamber of Commerce, various labor unions, and a number of economists who have written books or articles dealing with the question of postwar planning.

5. In England extensive plans are being made for the period following the war. There are opposing views as to the extent to which the government should enter into social and industrial plans.

QUIZ QUESTIONS ON CHAPTER XVI

1. Name three different types of economic systems in the world at the present time.

2. Which system is represented by the United States Government? Explain how this system differs from the other two.

3. In what way are large-scale corporations restricted in the United States?

4. In a free-enterprise system, who makes plans for management of a business concern?

5. Under a dictatorial type of government, who plans the operation of an industry?

6. What was the purpose of the Columbia University Commission? State briefly the results of the findings of this commission.

7. Do economists agree on the type of planning that is best for a country? Give examples in support of your answer.

8. Which is the greater problem at the present time, that of production or that of distribution? Give reasons for your answer.

9. State some of the opposing views of British economists on the subject of postwar planning as shown in their books or magazine articles.

10. Name three groups or organizations doing postwar planning in the United States.

11. Name such a group which represents industrialists and one that represents labor.

12. Name at least two points on which these groups are in accord.

13. State three or more postwar plans for social and economic welfare suggested by the economic planners for the Government.

14. Explain the difference between government regulation of industry and government management of industry.

15. Explain why there is more postwar planning in England than in America.

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