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FUNDAMENTALS OF INVESTMENT

EDITED BY

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PREFACE

PRACTICAL information for investors and prospective investors, given direct by practical executives in well-known financial institutions, is the substance of this book. It is comprised in nineteen lectures by members of the Investment Bankers Association of America, who are authorities in their respective investment fields and who bring this information direct from their daily experience in the investment banking business. So far as possible these lectures have avoided technicalities. They are as plain and comprehensive as possible. Their whole object is to give the public a better understanding of how to invest safely and profitably.

The lectures in this book were given in a special course on Fundamentals of Investment, planned by the Education Committee of the Investment Bankers Association of America, for the United Y.M.C.A. Schools of the United States. This course was designed to bring to the public and to younger men in the investment banking business an opportunity to learn the fundamentals of investing from recognized authorities in the investment banking business. All the speakers were selected with utmost care. All are executives or officers of banks or investment banking houses, a number of which are nationally or internationally known institutions.

Appended to each chapter is a set of "examination questions," prepared by Stuart P. Meech, of the faculty of the School of Commerce and Business Administration, University of Chicago; by Francis K. Knight, assistant sales manager of the bond department of the Illinois Merchants Trust Company, Chicago; and Samuel O. Rice, educational director of the Investment Bankers Association of America. Mr. Meech and Mr. Knight acted as quiz masters in the classes before which these lectures were given in the School of Commerce of the Chicago Y.M.C.A. The questions are

included here solely for the use of students who may wish to make a more thorough study of the subject of these lectures.

Realization of the value of these lectures will be apparent when it is known that the course was sponsored by the Investment Bankers Association of America in cooperation with the United Y.M.C.A. Schools of the United States. It has been given in Y.M.C.A. Schools in Chicago, Baltimore, Pittsburgh, Toronto, and other cities. Lawrence Chamberlain, well known as the author of *The Principles of Bond Investment*, probably the best-known book on this subject, is chairman of the Investment Bankers Association's Education Committee, which planned the course and the subjects for the lectures. The speakers were chosen by a special committee of the Central States Group of the Investment Bankers Association of America, which committee consisted of Bowman C. Lingle, vice-president of the Harris Trust & Savings Bank; Clarence W. Sills, vice-president of Halsey, Stuart & Co., Inc.; Eugene M. Stevens, vice-president of the Illinois Merchants Trust Company; and Barrett Wendell, Jr., partner, Lee, Higginson & Company. In addition, the working out of the course and its lectures were given close supervision by Harry Grant Atkinson, then dean of the Chicago Y.M.C.A. School of Commerce, and Mr. Rice, educational director of the Investment Bankers Association of America.

Following the presentation of these lectures, investment banking houses throughout the entire United States made application to the Investment Bankers Association of America for more than 3,000 sets of the lectures to be used in training junior members of their organizations.

SAMUEL O. RICE
HARRY GRANT ATKINSON

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THE HISTORY AND ORIGIN OF INVESTMENT

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Definition of the term "investment" in its financial sense. Investment distinguished from speculation and gambling. The early history of investment. Credit and economic development. Business organizations. Partnerships. Rise of the corporate form of business. Changes in forms of ownership. Characteristics of an investment. Pure interest and payment for risk. Fixed capital investment. Rise of investment banking business.

THE term "investment" has several other meanings than the one which will be considered in this book. The derivation of the word makes its literal meaning "to clothe in or to clothe with," and this is its literal application when one is invested with the robes of authority. There is a significance in this derivation, however, which is peculiarly applicable to the subject we have in mind, as the suitable investment of capital clothes it with authority and with power to work for and bring gain to its owner.

Money could be locked up in a safe deposit box and, in a practical way, be absolutely safe from risk or loss. But that would not be investing. The basis of investment of capital, at least in its modern sense, is interest. Interest is simply the rent or hire for the use of money. It is the measure of the earning capacity of capital employed. Every dollar has a certain earning power. As we put it to uses in which it exercises that earning power with safety and regularity of return we are investing. But if we lock it up in a safe deposit box, a part of it—its earning power—is lost and will remain lost as long as the dollar is left in idle safety.

Interest, or the hire or rental for money, in its present use is comparatively modern. Likewise, the term "interest" is

of comparatively recent usage. It used to be called usury, and interest is so referred to in the Bible. Today, "usury" applies only to illegal interest. There was some semblance of the use of interest in the days of the ascendancy of Babylon. A great deal of the wealth and commerce of Tyre were founded on the use of credit and payment therefor. But in these earlier ages the world's business was largely agricultural and pastoral. Industry, transportation, and commerce were of little significance, as compared with those functions today. There was little wealth and for that reason but little need for the use of credit, the lending of accumulated capital, in wealth production.

GAMBLING AND SPECULATING

The use of accumulated capital may take many forms. It may be used in gambling, which is pure chance with no possible foreknowledge or control of the result. This, of course, is the lowest form of its application. It may be used in what we call speculation. The word "speculation" is used with hesitancy, for it has such loose usages. In some applications it may be a slightly higher form of employing money than is gambling. At best, speculation is based on probabilities and, in every instance, is dealing in future rather than on established history.

Every business, every action carries with it some element of chance or risk. In gambling, it is all chance. The gambler has no control over causes and there is no way by which he may foretell results. In business, although there is the element of chance always present, the capable business man has knowledge and experience that enable him to control causes to some extent and to foretell results in a satisfactory measure. But the man who speculates on changes in prices, over which changes he has no control, and little knowledge of the factors causing the changes, that man's activities may be called speculating, but they are essentially gambling. Also, the man who

puts money into an undertaking about which he knows little or nothing and who is without knowledge of the character of the management, may believe he is investing, but he is not. He, too, is leaving everything to chance, which is gambling.

Accumulated capital may also be used in the enterprise in which the owner himself is engaged in the management, and this, of course, is the basis of much of our commerce and industry. It is the combination of his money plus his brains and endeavor which is the basis of the income of the average small business man. Unfortunately, the average man's intelligence is not even equal to a proper judgment of the business which he knows most about, and only a small percentage of these enterprises may be called successes. Most of them, at best, make only a fair living and the percentage of failures is very high. If the average man is unable to judge of his own business successfully, why should he be so foolish as to speculate in other businesses of which he knows nothing!

BUSINESS DEPENDENCE ON CREDIT

Today perhaps 90% or more of the business of the country is carried on by means of credit or instruments of credit. Producers of raw materials must have larger supplies of capital, both from their own resources and from credit. For example, it is said that the farms of the United States have more than \$3,500,000,000 invested in implements and machinery. Our farm lands, buildings, and improvements represent a further investment of approximately \$75,000,000,000.

All this land, improvements, machinery, and live stock of the farms represent accumulated capital invested or capital ventured in the risks of the farming business. A great part represents money capital, borrowed and converted into these other forms of capital. There are billions invested in oil, mining, timber, and other extractive industries; still more

billions in the manufactories, railroads, commercial enterprises, and utilities that function in the creating and distributing of still greater wealth. In all these, borrowed money which supplies funds to be converted into machinery capital, ties, rails, and rolling stock, mills, shops, stores, and materials is an absolute essential. Without this borrowed money capital much of these other forms of capital could not exist.

The growth of this feature of economic life has had a vast effect on our country and on the world's commerce. It has enabled great enterprises to be undertaken, such as the building of transcontinental railroads, the development of vast resources, which no man or combination of a few men properly could finance. Many of such corporations, continuing to exist by reason of their soundness and stability long after the original creators have passed away, have become so established in the confidence of the people through their belief in the stability of the enterprise and its management, that their stocks and their bonds have become recognized as safe investments, and into these securities vast amounts of accumulated capital of hundreds of thousands of small investors have been safely and wisely placed. A man with \$100 may buy a share of the capital stock or acquire a loan from one of these corporations secured by a mortgage on its property, and while he may be earning his daily cash by the labor of his hands, his \$100 is being managed for him by the ablest brains and under the soundest conditions that the country can furnish; and he, as the owner of that small amount, has benefit of all this expert ability in the management of his \$100, just the same as his neighbor who may have \$1,000,000 in the same company. So, the corporation has not only been of tremendous benefit in making possible the accumulation of capital for the upbuilding of the resources of the country, but under the management of men of the highest abilities and in proven enterprises it has likewise been of untold benefit in the conserving of the savings of the people.

THE NEW NEED FOR CAPITAL

This greater need of the world for the use of credit, or borrowed capital, has existed only during the last two or three centuries. Had you offered to lend \$1,000,000,000 to the ancient seats of civilization, Persia and China, they would not have known what to do with it. Little productive use could have been made of it. There were no great wealth-producing industries, as today. Machinery was utterly primitive. Almost all industry consisted of slow, small production, hand work. For example, the work in metals comprised tiny clay smelters and forges and a few crude tools. Today, one steel industry alone—the United States Steel Corporation—has more than a billion dollars invested in its huge furnaces, equipment, and other capital uses. In the ancient textile industry a few clumsy, home-made looms, some earthen dyepots and hanks of hand-spun yarn comprised the necessary capital outlay. There were no packing houses nor other food products manufacturing, as today. The productive uses of capital in the form of machinery were so mediocre and limited, that if a Carnegie of ancient history had had a comparatively few thousand dollars he could have duplicated all the little clay furnaces and forges necessary for a kingdom, or all the looms necessary for the country's needs. But having thus doubled the industrial equipment of his country, the ancient industrialist probably would have gone bankrupt, because, with its meager, toilsome production, primitive agriculture could not have released workers to man his industries. Or, if he could have obtained workers, transportation was too inadequate to distribute his goods.

This sketchy comparison has been made somewhat at length to emphasize the fact that modern investment and the use of capital are based on the superior ability of people to use wealth to create and distribute more wealth. In the ancient days of the so-called simple life, when the great bulk of invested capital was in lands and cattle, illiteracy

predominated. There was little need for the masses to borrow because there was little opportunity or knowledge of how to use capital in productive enterprises. The masses being illiterate, such money as they might acquire by borrowing was often for wasteful extravagance. Most of the people were poor and could give no property security for debts. Hence, the custom of giving their persons as security arose. This inevitably led to a form of slavery for non-payment of debts, and this is perhaps the origin of the age-old prejudice against what were termed "usurers." The Mosaic law prohibited a charge of interest between Jew and Jew. Roman law also forbade such a charge at one time, and the penalty for violation was more severe than the punishment for theft. Aristotle said that interest was essentially immoral. Later the early Christian church forbade it. England and France adopted laws against it, and at various times in certain countries the charging of interest was a crime next to that of murder.

INTEREST PERMITTED BY LAW

It was not until the reign of Henry VIII that England legalized interest. The old prejudice gradually gave way; first, because it caused extortionate rates. A person urgently in need of money would pay high enough to induce the usurer to commit the crime of lending. But the basic reason for the dying out of this prejudice was that it became economically unsound. As the world advanced and wealth accumulated, there was a wholesome need for employing money capital, through credit, to produce and distribute greater wealth. With this development has come a change in the conception of the use of money and the position of the money lender. He and his function have come to be recognized as an essential and honorable factor in the world's industry and commerce.

As civilization progressed and men began to accumulate goods beyond their own personal needs and to store com-

modities for future use, and as the old custom of barter or exchange of commodities for commodities was gradually replaced by the use of money as a standard of value to be used in purchases and sales, there came to be a gradual accumulation of capital in the hands of the thrifty and prosperous. This began to be used by the owners in loans to their neighbors. Gradually, through association of men together, or otherwise, there developed what we now call the investment of money in enterprises in which the owner is not himself necessarily engaged, either through the medium of loans or by the accumulation of shares of ownership. Thus capital and wealth began to accumulate and seek channels where it might have an earning power for its owners.

A business can obtain capital in just three ways: First, its owner or owners advance money from their savings and in return take the ownership or shares in the ownership. Second, it may take a part of the earnings, if any, for use in the business instead of paying all earnings to the owners or stockholders. Third, it may borrow money. This third method of obtaining money is the function with which this chapter is chiefly concerned, for it is the borrowing by governments and by business that form the great bulk of investment securities. Capital accumulations put into use take just two forms, the form of ownership and the form of loans, and it is loans that generally can qualify more nearly as true investments.

THE BEGINNING OF BUSINESS ORGANIZATIONS

Very frequently one man may not be able to provide all the capital needed to start or to carry on a business already started. He might find it impossible or disadvantageous to borrow. A historic example of this was in the ancient trading ventures when merchants banded together, equipping and loading ships for distant ports and each sharing in the risks and profits according to the amount of capital

each had ventured in the enterprise. With the discovery of America and the subsequent colonization, there was a new impetus to the forming of these associations of persons venturing their capital together in trading and colonizing schemes. It is true that there had been for a long time associations of business interests, the guilds, but these organizations were more largely trade associations, to regulate trade activities. They were not so much organizations to provide capital for business.

These trading and colonizing ventures, wherein a number of people shared their capital and the risks of the business, were forerunners of the modern business organization, the corporation. They, at first, were kinds of partnership ventures, but gradually they began to take on some of the aspects of corporations. The partnership had long existed, and even as late as the Civil War it was the predominant form of business organization in the United States as well as in the Old World. The corporation grew out of the necessity for a more efficient form of business organization than the partnership.

In business, men join together chiefly for two reasons, to provide larger capital and greater managerial ability. Today, either of these elements can be hired, but as long as the partnership was the usual form of business organization it was difficult to attract capital in large amounts into a business. A partnership organization, roughly, is an agreement between two or more persons to carry on a certain business or business function. It is limited to the length of life of any one partner. A partnership may be terminated at will according to the whims or desires of a single partner. Also, in the general partnership, each partner is liable for the acts of the other partners, as such. The incompetence or dishonesty of a partner might wreck the business and any one of the other partners be made liable for a part or all the partnership's obligations.

With the settling of the New World and the coming of the Industrial Age, huge amounts of capital were needed.

The partnership form of business no doubt was a useful type of cooperative effort, but its daily existence was so uncertain and its unlimited liability so great, few cared to invest their savings in a partnership that necessitated any large number of persons becoming partners. Business, chiefly to make investments surer and thus attract capital, began to strive for some better form of business organization. Changes and modifications were made in the partnership form of organization. It became the limited liability partnership, and developed into the joint stock company, in which shares of stock were held by many nominal partners. But it was probably from the municipal corporations, which existed by special grant of the sovereign power, that the modern business corporation derived its most essential characteristic, that of a definite, recognized entity, an artificial being, created by the state and having the possibility of long life, even immortality, since it could be chartered in perpetuity.

THE RISE OF THE CORPORATE FORM OF BUSINESS

Corporations today provide the great field for our investments. For this reason, further mention should be made of the origin of corporations. Monarchs with virtually unlimited powers had discovered that even they and their governments were incapable of doing certain necessary and feasible things. They had discovered that prosperous communities had less power and authority than their individual citizens. They had, accordingly, vested these communities with a sort of legal entity, through granting charters that gave the communities power to perform certain acts. It was then but a step to granting similar powers to groups of individuals, who, by charter right, had the privilege of colonizing and trading in certain areas.

This legalized entity gradually developed into the recognition that these artificially created "individuals," companies or corporations, were necessary to give stability to busi-

ness, especially to great undertakings where it was necessary to attract capital from many persons. At first the forming of a corporation was by special grant of king or parliament. Before the Revolutionary War, England forbade the American colonies to charter business corporations. The first American corporations were authorized by special acts of legislatures, a practice which marked them as organizations of special privilege which might be granted or withheld according to the whims, wisdom, or cupidity of legislatures. Early in their history the states of the Union adopted measures by which the forming of corporations was permitted to any group of citizens by conforming to certain requirements and procedure and without the necessity of legislative sanction.

The corporation was born of naked necessity. It continued to be developed, from necessity. It is a definite, specific person, an artificial individual created by the state; its birth certificate, a charter bearing the seal of the state. It comes into being by voluntary wish of man, but as long as it fulfils certain prescribed conditions no man can kill it. It may be immortal, for a state may charter it in perpetuity. Its honorable usefulness fixes its length of life. It harnesses the savings of many persons to the initiative of individuals and to the organized abilities and energies of a number of persons, all working to a definite end. It distributes and limits risk, since, generally, corporation stockholders or owners can lose no more than they paid for their stock. Corporations represent the most efficient form of cooperative effort in business, and business is nothing but the producing and distributing of the necessities, the comforts and the conveniences of life. The great trend of life today is toward cooperative effort. Even farming, the last stand of individual effort in any of the great industries, is adopting organized effort with more than 10,000 cooperative farm organizations on government record and undoubtedly many thousands more not reported, a number of which are successful business corporations.

CHANGES IN FORMS OF OWNERSHIP OF WEALTH

Corporations have entirely changed the forms and the method of holding and exchanging wealth. In its first step to obtain capital a corporation issues shares of stock. This stock represents the ownership and control of the corporation. It is evidenced by certificates of stock which the persons advancing the money receive. When the earlier railroads were built in the United States, much of the capital was obtained by stock issues. No person or group of wealthy men had sufficient capital for these giant undertakings. The funds of many people had to be attracted to this use. Many other businesses have been founded in the same way.

This form of corporate finance was comparatively simple. But as the country and the railroads developed and expanded, many companies had to obtain more capital. As they owned property that could be mortgaged or pledged as security, it was often more advantageous to borrow than to sell more stock or ownership shares. The corporations then issued their bonds, for payment of which they gave certain security. A bond is a promise to pay, plus certain contractual rights that are contained in the mortgage or trust indenture that secures the bond. The purchaser of a bond becomes a creditor, not an owner, of the company. He simply lends his money to the company and receives therefor a stipulated sum of interest at regular intervals. The stockholder, on the other hand, receives dividends as his ownership share in the profits of the business.

These two methods of financing, selling common stock, or ownership shares, and borrowing money on promises to pay, called bonds, are also a comparatively simple financial procedure. If business did not grow and progress, financial methods would have remained comparatively simple. But with the greater demand for varied uses of capital in hundreds of different kinds of businesses, with the increased use of machinery, science, and cooperative

effort, finance has necessarily become more complicated. There are many different kinds of stocks and bonds. In fact, persons who do not appreciate the necessity, that is, the basis, for some of the complexities in business and finance, may evidence impatience at being called upon to exercise discrimination in the choice of various types of securities.

The different classes of stocks all have a very definite and proper purpose, both in appealing to capital and in enabling the corporation to set up a sound and enduring financial structure. Bonds and notes are fundamentally all simple promises to pay. They evidence debt. That there are numerous types of bonds and notes does not alter that assertion. These different types do not exist primarily to make any change at all in the promise to pay. There are so many types of bonds primarily because there are so many ways of providing security for the bond and of providing payment for the bond.

WEALTH-CREATING AND INVESTMENTS

The history of investment has developed on the ability of people to create more wealth. All wealth comes from land, labor, capital, and managerial ability in combining labor, land, and capital. By "land" it is also meant that the term include the natural resources. It is just as economically essential that capital receive a reward for its use as that land and labor receive compensation. In the simple days of hand labor and the indifferent development of machinery and tools, comparatively little capital was required, except as it existed in land and materials. For example, the old-time manufacturer of shoes had very little money tied up in machinery. Labor and materials required the great bulk of his capital expenditures. Today a much larger part of the shoe manufacturer's capital goes into fixed assets in the form of machines that do the work of many men, and a comparatively smaller expenditure is

required for labor. To obtain money to build and equip the great shoe factories, railroads, utilities, and other enterprises, it was and is necessary to attract money capital from many people that this money capital may be converted into expensive plants and equipment or other capital uses. As has been explained, the corporation either borrows capital outright or sells an interest in its business.

THE CHARACTERISTICS OF AN INVESTMENT

Now when a person with savings or other accumulations to put to work looks about him he sees many thousands of businesses in which he may buy stock. If he buys stock, is he investing? He may be investing, but more generally he is not when he buys stock, or ownership, in a business. If he buys real estate, a farm, an office building, a hotel, a store, a shop, a railroad, a factory or some other form of real property, is he investing? He may be investing, but generally he is not. If a man owns a business, is there any assurance that he can receive a certain, regular yield every year? There is not. Some years the earnings may be large; other years they may be small. In some years even in the most capably managed business there may be losses. No one can say that any business will make money every year. Nor is it any more certain if the business consists of the ownership of a farm, an office building, a hotel, a store, a shop, a railroad, a factory, or any other form of business enterprise. Likewise the man who puts money into business ownership cannot generally be assured that he can get back all that money at any given time. Possibly he may sell his stock or other ownership interest, or his farm or his office building for more than he paid for it; possibly he may have to sell it for less than he paid for it.

In general only a loan can qualify fully as an investment, and at that only a well-secured and soundly based loan. A good bond or note is such a loan. The interest thereon must be paid regularly in full at a prescribed time.

The full sum invested must be repaid to the investor on a certain date. If interest or principal is not paid at the prescribed time the investor can compel payment. If the loan is properly secured he may seize and sell property valuable enough to pay him all the money due him. That is the general rule in corporation loans. In state and government loans the situation is different. A sovereign state cannot be sued without its consent to the suit, except by another sovereign state. In the case of general obligations of municipalities and other taxing subdivisions, the investor may compel the authorities to levy taxes to pay the obligation.

However, in some cases stocks are very properly said to have an investment rating. That means they are ownership shares in some business so firmly established and capably managed that it has paid dividends on its stocks for a long period of years. Stocks of such sound business pay dividends just as regularly as their bonds pay interest. These stocks generally have a high market value and, if bought wisely, there is practical assurance that the investor can get his money out of them almost at any time. But it must be remembered that such stocks are the ownership shares of established enterprises, managed by men of high integrity and experience, not new, untried businesses. It also is true that well-situated real estate sometimes meets the qualifications of an investment, in a practical way. It pays its rentals just as regularly as do bonds and can apparently be depended on to be worth the purchase price or much more over a long period of years. But, generally speaking, stocks and real estate are not investments.

PURE INTEREST AND PAYMENT FOR RISK

When labor hires itself out it receives a certain return, according to its ability and according to the risk it assumes. The head of a great railroad or other large business demands a high wage. That is a form of labor that requires

exceptional ability, which must be rewarded. When labor goes to work spading a garden the work requires no great ability; the compensation is less. When labor goes to work in a high explosive factory or in other hazardous employment, the ability required may not be great, but the risk to life is enormous and labor, justly, receives a higher wage. When capital goes to work, and it most certainly does go to work right alongside of labor, there is a certain fair wage that it should earn. If capital goes to work in hazardous employment, it must receive larger compensation, to pay it for the risk. If capital goes to work in the safest employment, the wage it should receive is pure interest. Pure interest is the hire for money invested in the safest possible loan. As risk is added, even in the slightest degree, the interest, or wage rate, for money increases.

Thus the investor may receive two kinds of compensation in the income of his investment return. One kind is pure interest; that is, a straight wage for money lent in the safest kind of investment. The other kind is payment for the risk taken in putting money into various kinds of employment. Those are the two rewards for his money that the investor should always keep in mind. As the return goes above that of pure interest the risk mounts up.

Investments are generally said to comprise fixed capital uses; that is, long-term note or bond issues and seasoned stocks with a record of consistent earnings. Business and government borrow huge sums for short periods, 30 days, 60 days, 90 days, or other periods up to a year, but this short-term paper is not so largely bought by investors because it means that within a short time they will have to go to the trouble of selecting other investments to replace these maturing loans. Moreover, the rates on prime, short-time loans do not attract the average investor. Business borrows on short-time loans usually at banks or by selling its notes, called commercial paper. If it is a regular borrower at banks it endeavors to establish a line of credit. This short-term credit is usually to supply money for cur-

rent expenses, to buy materials and pay the wages and other costs in handling these materials. The whole process of industry and commerce in producing raw materials, manufacturing finished products, transporting and distributing them is carried on largely by this short-term credit. As these short-term loans have behind them a large quantity of materials, commodities, and merchandise to secure the payment of current loans, these short-term borrowings may be said to be in the nature of investments. Usually a business can borrow on short-time paper to the amount of about half its current assets, if other conditions of the business make it desirable for bank credit. Let me remark, however, that the foregoing rule, if it may be called a rule, is merely a rough generality as stated here.

The banks of this country, of which there are about 30,000, keep approximately \$30,000,000,000 in these short-term loans. It is the supplying of this short-term credit that is one of the chief functions of the commercial banks. Business and government, however, frequently have need for long-term credit. When business borrows for a few weeks or a few months it is in anticipation of making sales or collections that will enable it to pay the loans. Business depends on its weekly or monthly earnings to pay its weekly or monthly debts. But business must make expenditures that cannot be paid back in a short time. These expenditures are for fixed forms of capital, for land, buildings, machinery, and for working capital. The business usually cannot earn enough in a year to pay for its plants and equipment. It can and does expect to earn enough in most years to put by annually a small part of its earnings to pay for these permanent improvements or fixed capital.

FIXED CAPITAL INVESTMENTS

But to obtain the money to make the improvements it must go to people who are willing to keep their money in the business for a considerable length of time. The banks

of the country hold approximately \$14,000,000,000 of investment securities, bonds, stocks, and notes that represent money in fixed capital uses. But the banks can supply only a very small part of these fixed capital needs because their chief business is supplying the short-term credit needs of the country and short-term credit demands a greater part of the banks' resources. Moreover, the great bulk of money lent by banks belongs to depositors and may be withdrawn at any time. Consequently, the banks cannot lend largely, except on short-term paper, which is constantly coming due and which thus enables the banks to pay back depositors' money any time they demand it.

As we have seen, business obtains money for fixed capital uses by selling ownership interest, shares of stock, and by long-time borrowing on bonds and notes. Many persons do not desire an ownership interest. They prefer to lend their money. They do not wish to function as a commercial bank, lending for short periods and thus being compelled to investigate and make new loans continually every few months. They desire a loan that is safe and that will not have to be renewed for some time. Business, and government, too, in need of long-time credit, are eager to find this kind of lender, and to serve business, government, and investor there has developed a great field of banking called investment banking. Its function is to supply long-term credit to business and to government and long-term investments, usually represented by bonds, to investors.

INVESTMENT BANKING

Investment banking has seen its greatest development in the last 50 years. That is because the greater part of corporation finance has come into being in that period. It is within the last 50 years that the world has shown its most rapid growth in its ability to produce and distribute wealth, in quantity and quality never before known. It is true that investment banking, in a way, has been car-

ried on for centuries. The world has long had this need of long-time credit, but the great development and service of this banking field has come with the rise of the corporate form of business.

Chiefly, the investment banking business concerns itself with supplying credit to business and government by buying the bonds of business and government and selling them to investors. Generally, the public knows these investment banking businesses as bond houses, or as bond departments of commercial banks. It is difficult to estimate how many bond houses and banks with bond departments there are in the country entitled to be called bond dealers or investment bankers. The membership of the Investment Bankers Association of America includes 616 investment banking houses and banks with bond departments. This number undoubtedly contains the great majority of investment banking businesses that are entitled, by integrity and ability, to rank as such.

A larger number of bond houses handle only bonds. Quite a number handle both bonds and preferred stocks and a still smaller number deal in bonds, preferred stocks, and common stocks. Some houses handle only civil loans; that is, government, state, municipal, and other taxing subdivision bonds. Other houses handle only corporation bonds, but a majority of houses handle both corporation and civil loan securities. The business of supplying long-term credit has also developed two divisions that might be called merchandising divisions. A few very large houses do only a wholesale business. They buy bond issues and then sell them to other bond houses to distribute to investors. A number of houses do only a retail business; that is, they act as distributors for the originating houses. Many houses, however, do both an originating business and a retail business. By "originating" I mean the function of investigating and buying the bonds from the corporation or division of government that issues them.

Investment bankers are not brokers. On the one hand,

they are merchants of credit. On the other hand, they perform a highly technical, professional banking service. Before they buy securities to sell to their customers they must investigate and determine the safety and value of those securities. Frequently, an investment banking house spends months investigating a bond issue. It employs engineers, accountants, attorneys, and every specialized calling necessary in that investigation. In the end it may refuse to underwrite the bonds because it does not consider them sufficiently sound. If it buys the bonds it is only after every test of expert judgment has approved them.

In the whole history of investments the greatest achievement in this long development, it may logically be said, is the high professional skill and the integrity of the recognized investment banker. He is a public necessity. Yet, amazing as it may appear, a great many intelligent people, persons of education and achievement in art, science, and business, do not know what an investment banker is or the invaluable function he performs. One of the aims of this course is that it be of aid in making the public better acquainted with the fact that the selecting of worthy investments is not a matter of chance but of expert professional service that can be obtained of the reputable investment banker. Most men and women are not capable of selecting investments. Further, they do not realize their utter incompetence in investing and that the selecting of safe investments requires a skill comparable to that of engineering, medicine, law or any other of the higher, specialized professions.

Little has been said of civil loans because the greater investment field today rises out of the business activities of the people in producing rather than from the operations of governments. It is the productive activity of a people that gives soundness to government credit; for government credit is maintained only by the ability of its people to produce wealth. There has been a great advance in civil loan financing along with the greater efficiency and stability of

business and finance. A chief difference between civil, or governmental bonds and corporation bonds is that rarely does a government or taxing subdivision thereof mortgage property to secure the debt. Usually a civil loan, such as a state, municipal, school district, or other taxing subdivision bond, pledges the full faith and credit of the borrowing community to pay the bonds. That faith is expressed in the levying and collecting of taxes with which to pay the bonds, both principal and interest. The taxing power is both the security and the means for paying the debt. The purpose of this chapter is to present a bird's-eye view of investments and their history along the line of their development and with a minimum of chronological detail. In civil loans, the reader will find that the United States has made great strides since the clumsy methods of public financing of colonial days. In corporate finance he will find that this country is among the most progressive.

SELF-TEST QUESTIONS

1. What is meant by investing capital funds? Does the term investment have a broad meaning? A narrow meaning? What is the difference between the two meanings?
2. What do you mean by capital? Capital funds? Capital assets? Is money capital? Why or why not?
3. Distinguish between investment, speculation, and gambling. Is risk inherent in all three? Is risk present in each to the same degree? Why or why not?

HISTORY OF INVESTMENT

1. Why was the taking of interest regarded as sinful in the medieval period? It is said that "capital accumulation" awaited the dawn of a specialized monetary, trading organization of society. Is this true? Why or why not?

2. What is interest? How does it differ from profit?

RISE OF CORPORATIONS

1. How did the invention of machinery affect the need of businesses for capital? The rate of interest? Saving and investment?

2. "The early colonizing and trading companies adopted the

corporate form of business organization." These companies assumed great risks and needed more capital than other business units of that time. Why do you suppose they adopted the corporate form of business organization?

3. Why was credit necessary before investment could attain its present status in our modern economic organization? What is credit? "To have credit we must have a stable money and a stable government." Why?

4. Why is banking necessary to the development of investment? Private property? The law of contracts?

5. "In the late nineteenth century the corporate form became of predominant importance as a form of business organization." Why or why not?

II

THE FIELD OF INVESTMENT

By CLARENCE W. SILLS

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Definition of capital. Why people save. The sources of capital supply: the individual; business concerns; commercial banks; reserve banks; agricultural credit institutions; insurance companies; fraternal orders; eleemosynary institutions; trade unions; estate and trust funds; building and loan associations. Sources of capital demand: government; estates and taxing subdivisions; agriculture; extractive industries; manufacturing; transportation; utilities; building construction. Forms of credit. Capital functions of the commercial and of the investment bankers. Conclusion.

THE field of investment is a broad subject and one difficult to treat in a short chapter. However, the pivotal points will be given sufficient attention to enable the reader to gain an accurate idea of the subject. The subject as a whole may be divided into seven main headings, as follows:

1. Definition of capital
2. Why people save
3. The sources of capital supply
4. The sources of demand for capital
5. Forms of credit
6. Commercial and investment credit instruments
7. Function of the commercial and investment banker

Surplus wealth or savings is capital. Most people consider the capitalist one of great wealth. This is entirely erroneous. Every individual who saves in excess of consumption is a capitalist, provided his savings are not hoarded. Directly or indirectly he becomes a capitalist in so far as his savings are utilized, and all such wealth is utilized in the great scheme of present-day business. Were it not for this saving by individuals, our governments, municipalities, industries, transportation units, public utili-

ties, building operations, and so forth, could not function. We would revert to the day when communication, international and national, would stop and we would all be grubbers for mere existence, living from day to day by physical exertion for food.

TWO KINDS OF CAPITAL

There are two kinds of capital in industry—working or short-term capital, and investment or long-term capital. The basis of this particular classification is the purpose for which such capital is used. The distinction is clearly made in order that the reader may understand the significance of the various institutions which furnish capital on the one hand or require it on the other, and the different types of credit instruments which evidence these transactions. Working capital, as such, is used in financing the short-time, day-to-day and month-to-month working requirements of industry; that is, inventories, wages, supplies, taxes, and general operating expense. Credits for working capital are furnished by the commercial banking institutions, usually for not longer than 60 or 90 days at a time and have their origin in commercial transactions involving the purchase and sale of goods. The maturities of the various kinds of commercial credit vary as to the length of time involved in the manufacturing and distributing process, these credits being in turn subsequently liquidated by the resale of the goods purchased, either as finished or partly finished products. Due to the vicissitudes of business generally, the credits extended by the commercial banker must of necessity be short term, for he must at all times be in position to meet the demands of depositors, whether demand or time. His loans, therefore, will usually consist of self-liquidating paper of the nature described and are evidenced on the books of the bank by the item "loans and discounts."

As distinguished from working capital, the purpose of investment or long-term capital is to provide the permanent

facilities in industry necessary to do business. The credit so extended is used in the purchase of such assets as land, buildings, plants, machinery, equipment, and improvements, such representing the facilities essential to the production, manufacture, and transportation of goods. Because of the very nature of its use, investment capital cannot be liquidated by resale to jobber or consumer, but must and can only be paid off from the earnings therefrom. These credits must necessarily be long term and, therefore, their extension to borrowers is usually confined to individuals, and institutions such as insurance companies, savings banks, building and loan associations, Federal and Joint Stock Land banks, and others better adapted to the making of long-term loans than the average commercial bank.

WHY PEOPLE SAVE

People save, not from a desire to accumulate money, but from the desire to command the commodities and services which money gives. This desire to save or, more accurately, the appreciation of the necessity for saving, has come down to us from our early ancestors who lived at a time when the scarcity of food and the bare necessities of life during certain periods of the year made saving during times of plenty a requisite to life itself in the bitter experience of drought and famine. Savings provide protection against inevitable age and consequent loss of productive energy. They provide the necessities for dependents engaged in work other than production, which is essential in the maintenance of family life. They furnish education for coming generations, ending in further productivity. This saving in modern times takes the form of savings deposits, investments of all types, and insurance policies, the growth in volume of which becomes increasingly greater as new means and methods of production are found, thereby releasing for further production and consumption the time, energy, and capital thus saved.

THE SOURCES OF CAPITAL SUPPLY

The individual directly or indirectly is one of the main sources of capital supply, although fundamentally and ultimately all capital may be said to spring from individual savings.

THE INDIVIDUAL

Let us first consider the individual as a direct source of capital supply. To him millions of credits are sold annually in small average units. Corporations admit him as a partner in their businesses through purchase of shares of stock and as a creditor through ownership of fixed interest-bearing securities. As a result of the war, which necessitated the sale of billions of dollars of securities in this country, and due also to the extensive educational work accomplished by the Liberty Loan campaigns, millions of new capitalists were created. It is a fact that the total number of subscribers to the Fourth Liberty Loan, which was the largest, was 22,777,680 people, or 21.9% of the entire population. It is estimated that 15,000,000 American investors were thus created by the Liberty Loans who had never bought bonds before, and a vast majority of this number had never previously had a conception of what a bond really was. Also, the purchase of securities on the instalment plan first came into use at this time, creating the saving and investment habit in countless numbers of people. As a result, hundreds of banks installed bond departments, and dealers sprang up throughout the country to further develop this vast potential source of capital.

A discussion of the wealth of this country and the income which accrues from it to the people will throw a little more light upon the above statement. The Bureau of Census estimates, on the basis of figures compiled in 1922, that the total internal wealth of the United States is in the neighborhood of \$320,000,000,000, giving to this country not only the greatest amount but the greatest per capita wealth of

any country in the world. The latest figures on the national income (1922) show that the gross national income is about \$53,000,000,000. Of this income it is estimated that \$43,000,000,000 is represented as expense and the remainder as savings. While the national income for the 10 years 1909 to 1919 increased 132% in volume, a considerable proportion of it was due to an even greater advance in prices. Nevertheless, on the basis of 1913 prices, the national income over this period shows an annual increase in excess of a billion dollars a year.

More significant, however, has been the increase in individual deposits of national and state savings banks, loan and trust companies, and private banks, which increased, during the last 30 years, from the inconsiderable sum of \$4,627,224,000 in 1893 to \$42,954,121,000 in 1924, almost 1,000%, or 10 times.

BUSINESS CONCERNS AS SOURCES OF CAPITAL

Many corporations and other business concerns have surpluses which are deposited in the banks of the country, or have purchased securities as investment reserves against contingencies, during inactive periods or years, or for the temporary investment of their working or fixed capital, pending the resumption of further expansion of their activities.

BANKS AND TRUST COMPANIES AS SOURCES OF CAPITAL SUPPLY

In discussing the subject of capital supply, the so-called commercial banking institutions of the country—by which are meant the national, state, savings, and private banks—and trust companies stand out preeminently as the most important institutional source. There are on deposit with this group of institutions not only the funds of individuals, but those of business concerns, as well as the deposits of civic and governmental bodies. These deposits serve as the basis

for loaning and discounting activities by means of which the capital requirements of industry are provided for. The bank acts as an intermediary, collecting the surplus capital from those who do not need it, and providing its use to others who do need it to carry on their activities.

As of June 30, 1924, the report of the Comptroller of the Currency for December, 1924, gives the total number of banks of all character engaged in the commercial banking business in the United States and territories as 29,348. The aggregate resources of these banks represent the enormous total of \$57,144,690,000, with deposits, including dividends declared but not paid and postal savings deposits, amounting to \$42,954,121,000, and capital stock, surplus, and undivided profits of \$6,131,927,000.

Examining the report of the Comptroller of the Currency as of June 30, 1924, in the light of banks as the source of capital supply, it is significant that the loans and discounts of \$31,427,712,000 are well over twice the item of investments, consisting of stocks, bonds, mortgages, and other securities of \$14,228,745,000. The detailed statement shown in Tables 1, 2, and 3 gives the individual items and their distribution, under loans and discounts, investments, and deposits. While these two items, of course, vary from month to month and year to year in amount and relationship, they give in a general way the extent to which banks, as classified, are a factor in supplying the short and long-term capital requirements of industry. In the eyes of the layman, these tremendous sums are utterly incomprehensible, but in their contemplation it is not hard for us to understand the powerful influence which the shifting of these items exerts upon financial conditions.

THE FEDERAL RESERVE BANKS

While the commercial bank in normal times is a source of capital supply, abnormal conditions sometimes reverse the situation so that the bank in turn becomes a borrower re-

quiring additional capital in order that it may continue to function. And this is the chief function fulfilled by the 12 great Federal Reserve banks of the country. They are bankers' banks to which the commercial bankers may appeal in case of need, either for additional credit in order to increase their loaning capacity or to replenish their stock of currency. In these 12 banks are deposited the gold reserves of member banks, thus becoming huge central reservoirs of capital available at all times to strengthen any weakness which might develop in the banking structure. These Federal Reserve banks may likewise borrow from each other if a serious drain on their resources develops and providing the situation is not altogether contemporaneous over the entire country.

A commercial bank borrows from the Federal Reserve bank by means of the process of rediscounting its commercial paper with the Reserve bank in its district, in a manner exactly similar to the bank's discounting commercial paper for a customer. By rediscounting, the bank may receive at its option either a credit balance with the Reserve bank, or Federal Reserve notes. Thus, in this way, banks

TABLE I
COMBINED STATEMENT OF RESERVES AND DEPOSIT
AND NOTE LIABILITIES OF THE FEDERAL RESERVE BANKS
DURING THE HIGH AND LOW PERIODS*

	Low Reserves Nov. 5, 1920	High Reserves July 23, 1924	Present July 15, 1925
Total Gold.....	\$2,008,678,000	\$3,167,527,000	\$2,790,601,000
Total Reserves.....	2,169,729,000	3,273,542,000	2,935,370,000
Bills Discounted....	2,826,925,000	290,832,000	454,739,000
Federal Reserve Notes in Circula- tion.....	3,354,180,000	1,782,626,000	1,626,971,000
Total Deposits.....	1,851,530,000	2,144,851,000	2,231,702,000
Ratio of Total Re- serves to Com- bined Deposit and Note Liabilities..	41.7%	83.3%	76.07%

*Figures from the *Commercial and Financial Chronicle*.

have an additional source to draw upon even after their own credit resources are rendered inadequate in meeting their local demands.

Space does not permit a complete history of the organization or operation of the Federal Reserve System or of its vital functioning during the war period and the inflation period immediately following, but some idea may be given of the expansion and contraction which took place by stating the condition of the 12 Federal Reserve banks at the peak of the inflation and deflation periods as regards their reserves and deposit and note liabilities. The high point of credit expansion was reached on November 5, 1920, when

TABLE 2

PRINCIPAL ASSETS AND LIABILITIES OF ALL REPORTING BANKS
IN UNITED STATES, ALASKA, AND INSULAR POSSESSIONS*

(In thousands of dollars)

	Aggregate Resources	Individual Deposits	Capital, Surplus, Undivided Profits
National Banks	\$22,565,919	\$18,347,837	\$2,916,243
State (Commercial) Banks . . .	14,816,011	11,755,233	1,873,161
Mutual Savings	7,364,656	6,693,246	658,640
Stock Savings	1,923,384	1,746,609	149,760
Trust Companies	10,323,777	7,785,331	1,434,228
Private Banks	150,943	120,519	21,258
Grand Total	\$57,144,690	\$46,448,775	\$7,053,290

	Loans and Discounts	Investments	Lawful Reserve with Federal Reserve Bank
National Banks	\$11,978,728	\$ 5,779,686	\$1,198,670
State (Commercial) Banks . . .	8,865,968	2,718,155	605,431
Mutual Savings	3,775,746	3,217,543	
Stock Savings	1,302,110	367,243	27,254
Trust Companies	5,293,820	2,748,425	633,392
Private Banks	75,516	35,051	3,561
Grand Total	\$31,291,888	\$14,866,103	\$2,468,308

*Statistics from *Report of Comptroller of the Currency*, December 3, 1924.

TABLE 3

DETAILED STATEMENT OF LOANS AND DISCOUNTS, INVESTMENTS,
AND INDIVIDUAL DEPOSITS OF ALL (29,348) REPORTING
BANKS IN UNITED STATES, TERRITORIES, AND
INSULAR POSSESSIONS, JUNE 30, 1924*

(In thousands of dollars)

LOANS AND DISCOUNTS	
(Including Rediscounts)	
On Demand (secured by collateral other than real estate).....	\$ 2,585,634
On Demand (not secured by collateral)....	948,430
On Time (secured by collateral other than real estate).....	3,120,839
On Time (not secured by collateral).....	7,215,563
Secured by Farm Land.....	283,577
Secured by Other Real Estate.....	3,447,692
Not Classified.....	13,828,982
Total.....	\$31,430,717
INVESTMENTS	
(Including premiums on bonds)	
United States Government Securities.....	\$ 4,614,364
State, County, and Municipal Bonds.....	1,401,222
Railroad Bonds.....	1,910,232
Bonds of Other Public Service Corporations (including street and interurban railways).....	904,615
Other Bonds, Stocks, Warrants, and so on..	5,398,312
Total.....	\$14,228,745
INDIVIDUAL DEPOSITS	
<i>Demand:</i>	
Individual Deposits Subject to Check.....	\$15,061,944
Demand Certificates of Deposit.....	537,923
Dividends Unpaid.....	50,365
<i>Time Deposits:</i>	
Savings Deposits, or Deposits in Savings or Interest Department.....	16,380,714
Time Certificates of Deposit.....	2,634,088
Postal Savings Deposits.....	75,367
Deposits Not Classified.....	8,213,720
Total.....	\$42,954,121
United States Deposits (exclusive of postal savings).....	238,439

*Statistics from *Report of Comptroller of the Currency*, June 30, 1924.

the combined note and deposit liabilities reached \$5,205,710,000 against total reserves of \$2,169,729,000, or a ratio of 40%. November 5, 1920, marked the beginning of the period of deflation and from this date on to July 23, 1924,

not only note and deposit items decreased over a billion dollars but there was likewise an increase in the reserves, due largely to the liquidation here of credits by foreign countries so that the reserve ratio rose to 83.3%. It has since gradually declined and at present (July 15, 1925) stands at 76.1%.

AGRICULTURAL CREDIT INSTITUTIONS

To expedite and provide necessary capital for the financing of agriculture and to relieve the commercial banks of a part of this burden, Congress has authorized and provided certain institutions to do this financing. I refer to the Federal Land banks, Joint Stock Land banks, Federal Intermediate Credit Corporations, and the War Finance Corporation. The first two institutions, authorized under the Federal Farm Loan Act of 1916, were designed to provide long-term credits to farmers. These credits run not less than 5 years nor more than 40 years and are used exclusively for agricultural purposes in the purchase of farms, equipment, live stock, buildings, drainage, irrigation, and so on.

Since their incorporation these institutions have increased very rapidly. As of June 1, 1925, the combined net mortgage loans outstanding representing credits advanced to farmers were \$1,658,996,187. During the eight years of their existence under the Federal Farm Loan System, Federal and Joint Stock Land banks combined have made a total of 431,849 loans.

After the Federal Farm Loan System had been in operation for three or four years, it was found that while the long-term credit requirements of agriculture had been taken care of, there still remained the problem of financing the shorter term "intermediate" credit requirements of the farmer. I say "intermediate" because the necessary loans for the raising, storing, marketing of crops, and fattening or breeding of live stock may require a maturity of six months to two or three years and, as such, are credits intermediary between

those which may lawfully and safely be extended by commercial banks, and those extended by the Federal and Joint Stock Land banks; hence, the subsequent authorization by Congress of "intermediary" credit institutions of the type previously mentioned to finance these credits. The maturity of the various types of loans extended by such banks is from nine months to two years and in the case of the War Finance Corporation, loans may extend to five years if the purpose is to "promote commerce with foreign nations."

While the Intermediary Credit banks are comparatively new as institutions, the time will, no doubt, come in the near future when they will occupy a prominent position as an additional large source of capital for agriculture.

INSURANCE COMPANIES

Second only to banks and trust companies as institutional sources of capital supply are the insurance companies of the country. These companies, collectively, have many billions of dollars invested in stocks and bonds, representing the investment of premiums received. Inasmuch as these premiums are being paid in continuously, insurance companies are, more or less, constantly in the market for securities in order that they may employ these funds advantageously in furnishing protection to their policy-holders, and in building up the necessary reserves against their outstanding risks. As of the close of the year 1924 it was estimated that the total assets of American life insurance companies alone, based upon figures recently issued by the Association of Life Insurance Presidents, would closely approach \$10,300,000,000. There is in force at the present time close to sixty-four billions of life insurance for which protection the American people pay annually over two billions of dollars in premiums. A statement of the distribution of the assets and reserves of life insurance companies for the year 1923 is given in Table 4. This statement shows that there are four major classes of security investments

which exceed a billion dollars in amount. The first and largest is an investment in real estate mortgages of \$3,343,000,000 (in round numbers) which comprises over 37% of the total assets; the second largest investment is represented by railroad stocks and bonds aggregating in excess of \$1,972,503,838, or 22%.

The third largest investment is in policy loans amounting to \$1,106,973,323, or about 13% of the total; investments in government, state, county, and municipal bonds come fourth, totaling \$329,103,421, representing 3.7% of the total.

These statistics should be sufficient to show the impor-

TABLE 4

DISTRIBUTION OF ADMITTED ASSETS AND RESERVES
OF LIFE INSURANCE COMPANIES FOR THE YEAR 1923*

	Total	Ratio
Mortgage Loans:		
Farm Properties.....	\$1,662,761,125	18.9%
Other Properties.....	1,680,890,981	19.0
Total.....	\$3,343,652,106	37.9
Real Estate.....	160,176,895	1.8
Collateral Loans.....	13,369,486	.2
Policy Loans and Premium Notes.....	1,106,873,323	12.6
Railroad Stocks and Bonds.....	1,972,503,838	22.4
Government Bonds:		
U. S. Government.....	769,202,410	8.8
State, County, and Municipal.....	329,103,421	3.7
Canada.....	214,297,896	2.4
Other Foreign.....	61,016,698	.7
Total Government Bonds.....	\$1,373,620,425	15.6
Other Bonds and Stocks.....	367,125,197	4.2
Total Bonds and Stocks.....	\$3,713,249,460	42.2
Cash.....	92,371,598	1.
Other Investments.....	375,322,443	4.3
Total Investments:		
Of Companies Contributing.....	8,805,015,311	
Of All U. S. Companies.....	9,454,624,793	
Ratio of Contributing Companies to all Companies.....		93.13

*The Association of Life Insurance Presidents. The admitted assets listed in this table represent, for 1923, 93.13% of the total admitted assets of all American life insurance companies, as shown in the *Insurance Year Book* for this year. The assets of the companies contributing to this statement totaled \$8,805,015,311 at the end of 1923.

tance of insurance companies in the investment field, although these figures are given only for life insurance companies and do not include the many other classes of insurance underwriters (casualty, indemnity, fire, marine, and so on), whose investments each year mount into the hundreds of millions of dollars.

FRATERNAL ORDERS

Partaking largely of the nature of insurance companies are the numerous fraternal organizations in the country whose memberships run into the hundreds of thousands. These fraternal organizations are groups of men and women banded together for a common purpose—in some cases, religious, although the common idea back of them all is the protective feature, so that they are, to a large extent, mutual insurance companies. In order to function properly these organizations accumulate reserves which must be invested to be useful. The *Insurance Year Book* reports for the year 1923, 227 fraternal orders with total assets of \$490,855,000; total annual income was \$206,569,979 which, less disbursements, left \$54,675,788 available for investment and reserves.

Another source of capital is endowed institutions, such as charities, churches, colleges, and the like, which have large funds invested, the interest on which largely furnishes their working capital and running expenses. Likewise the trade unions, many of which are powerful institutions with hundreds of thousands of members who pay in a certain amount each year for strike and unemployment insurance. These sums, when not actually being used for these purposes, are invested in securities, directly through the purchase of securities or indirectly through their deposit in banks which, in turn, invest these funds by means of making loans or by purchase of securities.

Estates and trust funds likewise yield huge sums for investments. These sums are held in trust by trust companies

and individuals and must be profitably employed for the benefit of the legatee or trust. The investment of these funds aims to establish not only a safe, but a permanent income; and the securities, if securities are purchased, are generally long-term credits advanced for fixed-capital purposes.

Building and loan associations, as cooperative institutions incorporated for the purpose of enabling their members to purchase or to build homes, furnish, in a unique fashion, a considerable supply of capital to the building industry. The Comptroller of the Currency reports, for the year 1924, a total of 10,744 such organizations in the United States with assets of \$3,942,939,880 and a membership of 7,202,880 individuals. It is interesting to note that 1924 showed an increase over 1923 of more than one million in membership and over one-half billion in assets.

SOURCES OF CAPITAL DEMAND

As the sources of supply are many, so likewise are the demands for capital, and classification of them is sometimes difficult because circumstances may render lenders of capital likewise borrowers and *vice versa*. It is sufficient to say that capital demands arise out of the multifarious industrial, social, economic, and civil activities of the world, and as with the sources of capital supply already mentioned, the classification will be confined to those sources of capital demand which are of the most importance and the most constant.

GOVERNMENT

The most striking example of the manner in which a source of supply may become likewise and contemporaneously a source of demand is the United States Government in its operations during the war when it went to the people for tremendous amounts of capital which it in turn used to make advances to the Allies for use by them to bolster up

and to reestablish their credit in this country. It is hardly possible to gain a comprehensive conception of the hugeness of the government's operations in this connection without some statistics as to the amounts of the loans made and debts contracted.

The pre-war debt of the United States, in the amount

TABLE 5

INTEREST-BEARING DEBT OF U. S. GOVERNMENT, OUTSTANDING
APRIL 30, 1925*

Consols of 1930, 2's	\$ 599,724,050
Panama Canal Loan	
Series 1906, 2's	48,954,180
Series 1906, 2's	25,947,400
Series 1911, 3's	49,800,000
Conversion Bonds, 3's	28,894,500
Total Pre-War Debt	\$ 753,320,130
<i>Liberty Loans:</i>	
1st Liberty Loan	
3½'s of 1923-47	
Convertible 4¼'s	1,951,520,150
Convertible 4¼'s	
2nd Liberty Loan 4's	
2nd Convertible 4¼'s	3,104,561,100
3rd Liberty Loan 4's	2,885,377,350
4th Liberty Loan 4¼'s	6,324,488,350
Liberty Loan Totals	\$14,265,946,950
Treasury Bonds	
4¼'s of 1947-52	763,948,300
4's of 1944-1954	1,047,088,500
Certificates of Indebtedness	
4's, 4¼'s, 4½'s	564,481,500
Treasury Notes	
4¼'s, 4¾'s, 4½'s	
4¾'s, 5½'s, 5¾'s	2,810,272,400
Postal Savings 2½'s	11,995,880
War Savings and Thrift Stamps	388,418,140
	\$20,605,471,800

*Commercial and Financial Chronicle.

originally issued, was \$972,000,000. With the war came the five Liberty Loans, ranging in amounts from two to seven billions each, or a total of original issue of over \$21,400,000,000, representing an increase in the nation's indebtedness of about 22 times, exclusive of other forms of

government borrowing at this time as evidenced by notes, certificates, and stamps. However, the five years subsequent to the war have seen a substantial decrease in the national interest-bearing debt of the government which, at the present time (April 30, 1925), all told is approximately \$20,605,471,800. (Table 5 is a detailed schedule of the interest-bearing debt of the United States Government outstanding April 30, 1925.)

TABLE 6

OBLIGATIONS OF FOREIGN GOVERNMENTS HELD BY U. S.
TREASURY TO SECURE AMOUNTS DUE, INCLUDING
INTEREST ACCRUED OR UNPAID AS OF
NOVEMBER 15, 1924*

	Principal	Unpaid and Accrued Interest
Obligations representing cash advanced under Liberty Loan Acts.....	\$ 5,242,247,155.14	\$1,430,837,260.89
From sales of surplus war materials.....	598,789,025.69	27,256,972.79
From relief supplies furnished by American Relief Administration.....	75,812,037.38	13,409,460.94
For sales of flour by U. S. Grain Corporation.....	55,172,966.88	10,007,499.78
Obligations received under refunding agreements conducted by World War Foreign Debt Commission. (Act of Feb. 9, 1922, as amended Feb. 28, 1923).....	4,597,908,542.50	
Total.....	\$10,569,929,727.59	\$1,481,511,194.40
	1,481,511,194.40	
Grand Total.....	\$12,051,440,921.99	

*The above figures represent the obligations of 19 different countries. Of these, the largest obligations are those of Great Britain for \$4,577,000,000; France for \$3,340,512,817, and Italy for \$1,647,868,197. Extract from *Report of the Secretary of the Treasury*, June 30, 1924.

It previously has been stated that the United States Government was likewise a lender of capital. From the proceeds of the Liberty Loans the Government advanced over \$9,800,000,000 to the Allies. In addition, from the sale of surplus war materials to foreign countries the government is owed almost \$600,000,000, and for relief supplies

TABLE 7

OBLIGATIONS OWNED BY UNITED STATES GOVERNMENT TO
SECURE ADVANCES MADE TO DOMESTIC
CORPORATIONS—JUNE 30, 1924*
(Interest accrued and unpaid not included)

Capital Stock of War Emergency Corp.....	\$102,215,837
Railroad Obligations.....	449,377,995
Capital Stock of Panama Railroad.....	7,000,000
Federal Land Bank Sec.:	
Capital Stock of Federal Land Banks.....	1,785,500
Federal Farm Loan Bonds.....	101,885,000
Capital Stock of Federal Intermediate Credit Banks. . .	24,000,000
Miscellaneous Securities Received by War and Navy Departments and U. S. Shipping Board.....	58,519,806
	<u>\$744,784,138</u>

*Figures above are net, after deduction of cash on deposit with United States Treasury and securities retired. Extract from *Report of the Secretary of the Treasury*, June 30, 1924.

furnished by the American Relief Administration and for the sale of flour by the United States Grain Corporation, is owed an additional amount in excess of \$160,000,000. The total principal amount of the obligations of foreign governments representing 19 different countries, held by the United States Treasury to secure loans made to them including interest accrued or unpaid, as of November 15, 1924, was in excess of \$12,051,440,921.

TABLE 8

MUNICIPAL BONDS DISPOSED OF IN THE UNITED STATES
—1923-1924, INCLUSIVE

Purpose	1924	Per Cent of Total	1923	Per Cent of Total
Water.....	\$ 144,213,965	10.3	86,831,395	8.1
Streets, Roads, Bridges, etc..	380,770,581	27.2	314,465,826	29.6
Sewers.....	94,456,492	6.7	89,219,413	8.3
Schools.....	288,522,750	20.9	208,328,960	19.6
Buildings.....	88,661,962	6.3	47,249,988	4.4
Parks.....	30,739,567	2.7	29,879,855	2.8
Light and Gas.....	20,501,310	1.4	15,795,111	1.8
Funding and Improvement...	123,930,008	8.8	82,914,488	7.7
Soldiers' Bonus.....	72,052,000	5.1	92,000,000	8.7
Miscellaneous.....	48,142,753	3.4	20,248,417	1.9
Flood Prevention.....	16,071,000	1.1	4,053,600	.4
Harbor and Water Front....	26,388,800	1.8	19,539,560	1.8
Rapid Transit, Ferries and Canals.....	25,831,000	1.8	18,116,500	1.7
Irrigation.....	19,357,700	1.3	14,474,625	1.3
Total (net).....	<u>\$1,379,639,888</u>	<u>98.6</u>	<u>\$1,043,117,738</u>	<u>98.1</u>
Refunding.....	19,589,179	1.4	19,959,482	1.9
Grand Total.....	<u>\$1,399,229,067</u>	<u>100.0</u>	<u>\$1,063,077,220</u>	<u>100.0</u>

TABLE 8—(Continued)

MUNICIPAL BONDS DISPOSED OF IN THE UNITED STATES
—1919-1920, INCLUSIVE

Purpose	1920	Per Cent of Total	1919	Per Cent of Total
Water.....	\$ 54,295,755	7.74	\$ 55,349,255	8.00
Streets, Roads, Bridges, etc...	216,186,781	30.83	296,051,897	42.81
Sewers.....	39,626,149	5.65	38,709,122	5.60
Schools.....	129,817,612	18.51	103,183,775	14.92
Buildings.....	25,334,286	3.62	24,843,038	3.59
Parks.....	17,947,724	2.56	7,720,397	1.12
Light and Gas.....	11,880,754	1.69	10,191,822	1.47
Funding and Improvement...	50,321,838	7.16	48,264,252	6.98
Soldiers' Bonus.....	18,000,000	2.59	None	
Miscellaneous.....	126,354,675	18.02	93,873,704	13.58
Total (net).....	\$689,765,574	98.37	\$678,187,262	98.07
Refunding.....	11,422,681	1.63	13,331,652	1.93
Grand Total.....	\$701,188,255	100.00	\$691,518,914	100.00

The government has likewise been active in the domestic field. As of June 30, 1924, the United States Government held obligations to secure advances made to domestic corporations in excess of one-half billion dollars, the largest of which represented advances made to the railroads totaling over \$449,377,995.

These figures do not include issues of temporary securities, Canadian bonds or bonds of United States possessions floated in this country, which for the year 1924, respectively, were as given at the top of the following page.

STATES, COUNTIES, AND MUNICIPALITIES

The capital demands of states, counties, municipalities and tax districts, while, of course, not comparable to that of the government, have in recent years assumed very large proportions. This has been largely due to the Federal income tax, rendering the bonds of these bodies totally exempt from Federal income taxes and creating for them an artificial demand which made possible the raising of money very cheaply. The relatively low cost of money and the ease with which it could be raised through the sale of municipal

1924	
Temporary Securities, Revenue Bonds, Tax-Anticipation Certificates, Corpo- rate Stock Notes for the Amount of...	\$ 902,032,475
Canada	329,307,124
Bonds of U. S. Possessions.....	8,830,000
General Funding Bonds (New York City)	39,500,000
Total	\$1,279,669,599

GROSS INDEBTEDNESS OF 1923*

States	\$ 1,162,651,000
Counties	1,366,635,000
Incorporated Municipalities	5,840,052,000
All Other Civil Districts	1,891,811,000
Total	\$10,261,149,000

*Moody's, 1923.

obligations has resulted in a country-wide era of civic improvements. During the year 1924 over a billion dollars of municipal bonds were disposed of in the United States and if to this total were added the various short-time tax-anticipation securities issued by municipalities, together with the Canadian bonds and the bonds of the United States possession sold in this country, the aggregate amount of such obligations would approximate nearly two billion dollars. It is interesting to note that \$380,000,000 of municipal bonds issued in 1924 were for the purpose of building or improving streets, roads, and bridges, constituting 37% of the total, and that over \$288,000,000 or 20½% were for the purpose of building or improving schools. It is estimated that the present gross indebtedness of all states, counties, and municipalities of the country approximates \$10,000,000,000, or nearly one-half of the total interest-bearing debt of the United States Government.

AGRICULTURE

The agricultural industry, which is by far our wealthiest, requires large amounts of capital, particularly during the

planting and crop-moving periods. The United States Census (the latest dependable source, as of January, 1920) gives the value of all farm property, including land, buildings, implements, machinery, and live stock, as \$77,900,000,000 and the gross value of farm products for the year ending 1919 as \$21,400,000,000. It is also interesting to note that there are approximately 6,200,000 farmers.

It is readily apparent from these figures that the volume of financing necessary to produce and distribute these products is tremendous and in a much greater volume than the average layman appreciates. The United States Census (1920) for the year 1919 gives the expenditures for labor, fertilizer, and feed as an amount in excess of \$1,550,000,000, which does not include the larger expenditures for seed, marketing, and so on.

The above expenditures illustrate the working capital required and the operating expense incidental to the agricultural industry. The fixed capital demands of agriculture to some extent are manifested by the amount of mortgage debt outstanding on farms, which, according to the 1920 Census, was in excess of \$4,000,000,000.

Thus it is seen that farming is a business of most substantial proportions and, like any other, demands capital for working and investment purposes; the demand for this capital being furnished by the institutions and individuals previously mentioned under "Sources of Capital Supply."

MINING AND OTHER EXTRACTIVE INDUSTRIES

The extraction of the huge wealth stored in the ground requires untold millions for prospecting, developing, equipping, operating, and marketing. Funds must be raised at first largely through the sale of stock in the preliminary stages, and later, after the development has become more established, through issuance of fixed interest-bearing securities. In 1919 the Census reports a total capital investment in producing mines, quarries, petroleum, and natural

gas wells, and so forth, of \$6,955,000,000, with principal expenditures for this year (1919) in excess of \$2,515,000,000.

MANUFACTURING

The majority of our manufacturing concerns are owned by the public, which means that their shares are held individually by millions of stockholders. Further, through the issuance of bonds, these corporations have thousands of creditors representing the bondholders. The tremendous activity of the war caused a vast expansion in the necessities for fixed and temporary capital of our big industries. For this purpose huge stock and bond issues were floated and, following the activity of the war and the resultant drop in inventory values and the depletion thereby of their working capital, these large industries found it necessary to issue fixed interest-bearing securities on their fixed assets to provide the necessary working capital to see them through the period of deflation.

To give an idea of the size of the manufacturing industry of the country, the Census reports for the year 1919 are quoted. There are 290,105 manufacturing establishments in the United States proper, employing over 10,800,000 persons who were paid an aggregate in wages and salaries for the year of over \$13,425,000,000. Add to this latter figure \$2,290,000,000 for rent and taxes, add \$37,376,000,000 for cost of materials, and you get some idea of the size of the working capital requirements of this industry. The total capital investment in the manufacturing industry of the United States is in excess of \$44,661,000,000.

TRANSPORTATION

Under transportation as a source of capital demand, only the most important will be mentioned, namely, steam railroads, which represent an investment of billions of dollars of capital. With the exception of agriculture, the railroads,

from the standpoint of capital invested, represent our largest single industry. Accurate final figures on the valuation of railroads, which have been under way by the Interstate Commerce Commission for several years, are not available, but as of the end of 1919, the Commission returned a tentative minimum valuation of the railroads of \$18,900,000,000, which together with the subsequent investment of \$1,984,000,000, raises this total to \$20,884,000,000 as of the close of 1923.

That the railroads have required tremendous amounts of capital is indicated by the fact that as of December 31, 1921, the Interstate Commerce Commission reported total railway capital outstanding to the amount of over \$22,291,000,000, \$9,076,000,000 of which consisted of stock and \$13,215,000,000 funded debt. Due, however, to the inter-ownership of railroad securities between the railroads themselves to the sum of over \$5,200,000,000, the net capital outstanding in the hands of the public is reduced to about \$17,082,000,000. These figures do not include switching or terminal companies, the net amount of which outstanding was over \$420,000,000.¹

It might be interesting to know, in this connection, that the majority of our railroads were financed in their early stages by foreign capital, particularly British, and that prior to the war, British investors held millions of dollars of American railroad securities.

PUBLIC UTILITIES

The public utility industry, which popularly includes electric light and power, gas, water, heat, telephone and telegraph, street and interurban transportation, has become a large absorber of capital, and since the war has even outstripped the railroads in the number and amounts of new stock and bond issues. Progress has been particularly rapid in the development of the electric light and power industry.

¹ *Thirty-fifth Annual Report*, Interstate Commerce Commission, 1923.

Due to the curtailment of their building and expansion programs during the war, facilities were not able to keep up with increasingly greater demands for light and power and, as a result, it is estimated that for the next five years this industry alone will require in the neighborhood of \$500,000,000 per annum, in order to catch up with its demand. The public utilities of today have passed through the promotional and experimental stages and are now firmly established under the protection and supervision of commissions and supported by the recognition on the part of the public of the vital importance of public utility service. Due to the fact that public utilities as such are not under a single jurisdiction but are regulated by various state commissions under varying prescribed methods of accounting, an accurate estimate as to the capital invested in these enterprises is rendered difficult. It is estimated, however, that the total capital invested in the public utility industries is approximately \$18,600,000,000 for the four largest of the industries, distributed as follows:

Electric light and power.....	\$ 6,500,000,000
Electric railway	5,600,000,000
Gas	4,000,000,000
Telegraph and telephone.....	2,500,000,000
Total	<u>\$18,600,000,000</u>

It is further estimated that these four industries produce in gross earnings nearly \$4,500,000,000 annually.

The total amount of new capital represented by long- and short-term bonds, and stocks raised by the public utility industry last year (1924) was \$1,325,600,827, distributed as follows:

Long-term bonds and notes.....	\$ 722,018,123
Short-term bonds and notes.....	107,032,000
Stocks	496,550,704
Total	<u>\$1,325,600,827</u>

By comparison, the public utility industry leads all other industries in the amount of security issues floated last year,

not only in the total of new capital, but also in refunding operations of \$408,078,000, or total financing for the year of \$1,733,678,827.

BUILDING CONSTRUCTION

The building of factories and the housing of our workers absorbs huge amounts of capital each year. The deferred construction during the war period necessitated a tremendous building program. Following the war, large amounts were borrowed through individual real estate mortgages, although more recently, in order that building projects may be financed on a larger scale, individual mortgages are now split into small units for wide distribution and ownership. It is estimated that during the year 1923 over \$4,500,000.000 was expended on construction.

In Table 9 is given a tabulation of the total amount of securities issued in the United States during the period 1912-

TABLE 9

TOTAL AMOUNT OF SECURITIES ISSUED IN THE UNITED STATES—
1912-1924 INCLUSIVE*

Year	Grand Total	U. S. Securities Repurchased from Abroad	Refunding
1912.....	\$2,758,071,100	.....	\$338,000,000
1913.....	2,692,661,800	\$ 335,000,000	278,500,000
1914.....	2,992,366,000	750,000,000	600,600,000
1915.....	5,275,334,400	1,200,000,000	225,500,000
1916.....	5,032,365,800	1,000,000,000	322,500,000
1917.....	9,830,981,900	600,000,000	396,579,000
1918.....	14,317,381,500	125,000,000	228,851,000
1919.....	11,185,615,900	300,000,000	453,305,000
1920.....	4,506,440,700	140,000,000	256,293,300
1921.....	4,463,720,700	.....	597,902,900
1922.....	5,375,425,000	.....	737,548,240
1923.....	4,986,475,000	.....	683,080,000
1924.....	6,327,085,941	.....	757,396,751

*Totals given in the grand total column include foreign capital flotations sold in this country. American securities repurchased from abroad as well as all war issues of the United States Government. The latter amounted to \$6,143,500,000 in 1917, \$12,035,000,000 in 1918, and \$6,443,800,000 in 1919. Extract from *Moody Governments and Municipals, 1923*.

1924 inclusive, as manifesting the diversity and amount of capital demands. Less the amount of refunding issues last year (1924), you will note that this country absorbed about \$5,569,000,000 of new securities. It is estimated that the present capacity of this country to absorb new capital flotations, exclusive of refunding issues, is between \$350,000,000 and \$400,000,000 a month.

It is hoped that the foregoing has been successful in conveying some idea of the vastness of the financial operations in this country and the myriad ways in which surplus wealth or capital is gathered together, to be loaned for profit, on the one hand, and to be directed into productive channels, on the other. Any individual who possesses a savings account or an insurance policy or membership in a fraternal organization or union or who is directly or indirectly placing his savings into use, is a capitalist, and his surplus, in the aggregate, furnishes capital to the governmental and corporate enterprises of the world.

TABLE 10

SUMMARY OF CORPORATE, FOREIGN GOVERNMENT, FARM LOAN,
AND MUNICIPAL FINANCING, FOR THE 12 MONTHS
ENDING DECEMBER 31, 1924*

	New Capital	Refunding	Total
Corporate:			
Long-Term Bonds	\$1,923,771,423	\$395,689,077	\$2,319,460,500
Short-Term.....	276,072,800	59,606,000	335,678,800
Preferred Stocks..	317,990,649	28,064,223	346,054,872
Common Stocks..	509,982,142	8,400,000	518,382,142
Canadian.....	97,850,000	14,516,000	112,366,000
Foreign.....	196,628,750	10,000,000	206,628,750
Total.....	\$3,322,295,764	\$516,275,300	\$3,838,571,064
Foreign Government	570,945,555	207,059,445	778,005,000
Farm Loan Issues..	179,106,000	.....	179,106,000
War Finance Corp..	.....	.....	.....
Municipal.....	1,353,677,465	17,412,006	1,371,089,471
Canadian.....	134,834,406	16,650,000	151,484,406
U. S. Possessions..	8,830,000	.....	8,830,000
Grand Total.....	\$5,569,689,190	\$757,396,751	\$6,327,085,941

*Commercial and Financial Chronicle, January 24, 1925.

The various sources of capital supply and demand which were discussed in the foregoing can be briefly summarized as follows:

SOURCES OF SUPPLY

Individual
Business Concerns
Commercial banks
Federal Reserve Banks
Agricultural credit institutions
Insurance companies
Fraternal orders
Endowed institutions
Trade unions
Estate and trust funds
Building and loan associations

SOURCES OF DEMAND

Government
States, counties, and municipalities
Agriculture
Mining and other extractive industries
Manufacturing
Transportation
Public utilities
Building construction

FORMS OF CREDIT

Our discussion so far has covered the definition of capital, and the means by which it is accumulated to be devoted to further productive uses. But any discussion of capital must necessarily include the subject of credit, for credit is capital and all capital, if borrowed, represents credit in one form or another.

Credit, as used in business, is defined as a trust based upon a transaction involving the exchange of goods for money or other goods, in which payment by one of the parties thereto is deferred to some future date. The cornerstone of all credit is confidence in ability to pay, whether it be a government, a corporation, or an individual. Through the media of credit instruments of various kinds, credit has served to speed up the circulation of money. Figuratively, in its present high stage of development, credit has made one dollar now do the work of fifty dollars. By means of offsetting credits against each other, a tremendous volume of business can be done and still only a relatively small amount of cash be needed to settle the balance. It

is by this process of balancing off credits in the form of notes, drafts, and bills of exchange cleared through and by means of the banks, local clearing-houses, and the Federal Reserve System, together with the confidence reposed in these institutions by the public at large, that has made possible the financing of the commercial credit requirements of industry on the extensive scale that it is being conducted today. Also, the financing of the investment credit demands of modern industry can be traced to the increasing faith of investors in the general integrity of business methods and in the stability and earning capacity of corporate enterprise.

SHORT-TIME COMMERCIAL CREDIT INSTRUMENTS

As pointed out previously in connection with the kind of credit supplied by the banks, commercial credit, as such, represents a short-term loan to finance a going concern temporarily, with immediate or seasonal funds, thereby enabling it to purchase its raw materials and to finance the manufacture of its product until marketed and paid for. Commercial credit is commonly evidenced in business by the following:

1. Open book accounts
2. Promissory notes
3. Acceptance (bank or trade)

1. Open book accounts or "charge accounts" are merely "accounts receivable" or "goods sold for which payment has not yet been received." On the books of the purchaser the items would appear as "accounts payable" or "purchases unpaid for." This is the commonest and most informal kind of commercial credit and does not give rise to an instrument of credit, statements being rendered every week or month, as the case may be, for settlement.

2. Promissory notes are formal instruments of credit involving a written promise to pay, on the part of the bor-

rower to the lender, a certain sum of money, at a certain future date. Such an instrument may be executed by corporations or governments as well as individuals. In the case of governments or municipalities such instruments are issued in anticipation of taxes or current revenues not yet due and usually take the form of 3- to 6-month notes called "tax anticipation certificates" or "certificates of indebtedness."

3. Acceptances are time drafts or bills of exchange representing not a promise but an order from the drawer of the draft to the drawee, directing the payment of a certain sum of money to the payee on a definite future date. The payee may be the same as the drawer of the draft or some third person. This instrument, to be valid, requires "acceptance" of it evidenced by the signature of the drawee written or stamped across the face of the instrument. The bank acceptance is similar to the trade acceptance except that the former is indorsed or accepted by a bank rather than by a private individual. A bill of exchange is synonymous with draft, the term "bill of exchange" being used by bankers sometimes to designate drafts drawn on parties in foreign countries.

LONG-TIME FORMS OF CREDIT INSTRUMENTS

Investment credit instruments divide themselves into two classes, stocks and bonds.

1. *Definition.* Stocks are certificates representing shares in the proprietary interest of a corporation, and as such entitle the holder in whose name the stock is registered on the books of the company to participate in the management, risk, and income in proportion to the number of shares which he holds. Bonds, on the other hand, including notes which are similar in character although usually of shorter maturity and unsecured by mortgage liens, are a formal promise to pay secured either by property or collateral

bearing a fixed rate of interest and usually of fixed maturity. It is necessary clearly to understand the wide distinction between a bond and a share of stock. The stockholder is an owner assuming risk of ownership in the direct or indirect operation of the corporation for profit. The bondholder is a preferred creditor loaning money to the corporation for a certain length of time at a fixed rate of interest. He is secured in event of non-payment of principal or interest by a legal contract enforceable by law for the satisfaction of his claim. The stockholder, on the other hand, cannot force payment of a return upon his investment if it is not earned. Thus the position of the stockholder is subordinate to that of the bondholder, both as to assets and as to distribution of earnings in the form of dividends.

2. Stocks are commonly divided into two classes: (1) common, (2) preferred. Common stock carries with it the rights and privileges mentioned previously in connection with the general characteristics of stocks as distinguished from bonds. A stockholder has the right to vote, to participate in dividends if declared, to attend stockholders' meetings, and to examine corporate records, in addition to any other rights which the charter or by-laws of the corporation may provide.

Common stocks are issued with or without par value. Shares of stock are issued with a par value as low as \$0.10 and as high as \$1,000 or even larger multiples. By par value is meant stock with a definite face value or amount indicated on the face of it. In recent years there has been a growing tendency to issue stock of "no par value" representing merely so many shares outstanding, the aggregate of which represents the total proprietary interest of the stockholders; the value of an individual share being determined simply by dividing the amount of the proprietary interest by the total number of shares outstanding.

Preferred stock is more or less of a hybrid, partaking of the nature of stock and likewise in some ways of the

nature of a bond. Unlike common stock, the preferred carries a certain fixed dividend rate varying from 6% to 8% on a par value of \$100. The latter is preferred over the common stock as to earnings and usually as to participation in the assets. Preferred dividends are commonly cumulative; that is, if a dividend is not earned it need not be paid, as with bond interest, but carries over to the following year or years until such time as the earnings of the company make it possible to resume dividend payments. Ordinarily, it is not until after current as well as accumulated preferred dividends have been paid off that the common stock is entitled to receive anything. Oftentimes preferred stock may carry with it a participating feature entitling it to receive an additional dividend where excess profits are earned, sharing in a certain ratio with the dividends declared on the common. While preferred stocks do not have any fixed maturity, provisions are sometimes made in the indenture under which the company agrees to retire all of the preferred stock outstanding on or before a certain date, and a great many preferred stock indentures today include a callable feature, making such retirement optional with the company. In addition to the callable feature, other features are sometimes found, such as provisions preventing creation and sale of obligations senior to preferred shares while there are any of the latter issue outstanding; provisions for the maintenance of a certain ratio of assets to liabilities; provisions as to payments into a sinking fund for the extinction of the preferred issue; or certain provisions as to the ratio of dividend requirements to earnings before issuance of additional preferred stock of similar character.

BONDS

A bond may be defined as a written promise to pay, under seal, a specified sum of money at some definite future date, with interest payable at a fixed rate at definite intervals during the life of the instrument. Bonds are usually issued

in the denomination of \$1,000, although in recent years, particularly since the Liberty Loan campaigns, the \$500 and \$100 denominations have found favor. A bond is usually one of an exactly similar number, the aggregate of which makes up the "bond issue" and all covered by the same indenture. The maturity of a bond varies, the shortest maturity usually being 10 years, and the longest running as high as 100 years, or even longer. In fact, there are some bonds in the nature of perpetual loans which have no maturity, such as the British Consols and the French Rentes, gradual retirement of which is accomplished through the operation of a sinking fund every year. Notes are distinguished from bonds by their shorter maturity, usually from 1 to 10 years, and by the nature of their security. Notes constitute a temporary form of financing, and being such are rarely secured by a mortgage lien, but usually by a lien on collateral or merely the general credit of the issuing corporation. Bonds and notes may be classified according to the nature of their security, (1) by lien on real property, (2) by lien on collateral, (3) unsecured. Bonds or notes of the latter type are called "debentures."

The agreement under which bonds and notes are issued is called an indenture. It is a legal, written document, often very lengthy, which defines the rights of the borrower and lender and contains all of the terms and conditions of the loan as between the issuing corporation, the trustee with whom this document is deposited, and the bondholders. The trustee, who is appointed, holds this indenture in trust and during the life of the loan has conditional title to the property pledged pending payment of principal, when due, and the periodical instalments of interest. Failure to pay either principal or interest when due constitutes a violation of the indenture and permits the bondholders to collect by taking legal action to secure possession of the property.

A bond is a carefully engraved document into which are written the conditions and terms of the loan, bearing the corporate seal of the company, the signatures of one or

more of its officers and that of the trustee. Bonds are usually made payable to the bearer, as are the coupons which are attached and which are clipped off and cashed when due, usually semiannually. Realizing the more or less ready negotiability of bonds and the attending risks of their being lost, destroyed, or stolen, people without safety deposit boxes or other means of safe custody for their securities sometimes find it desirable to have their bonds "registered" as to principal, or as to both principal and interest. In the first case the bond is sent in to the trustee who detaches the bond itself and returns to the holder a receipt for it together with the coupons which are still payable to bearer and may be cashed at will when due. In the latter case, where both principal and interest coupons are registered, the trustee issues only a receipt to the holder and as the coupons come due mails a check for the amount due. Registration of bonds, however, is not widely practiced except in cases where bonds are purchased to be held until maturity, for when registered bonds are sold prior to maturity, it is necessary to secure a release from the trustee, which often takes several weeks with the attending inconvenience and loss of time.

An effort has been made to bring out in the above discussion the fundamental differences between the two main classes of corporate securities; that is, stocks and bonds; one representing ownership and the other, creditor interests. The numerous classes of stocks and bonds, together with a more detailed description of their provisions and purposes, is left for a subsequent chapter.

CAPITAL FUNCTIONS OF THE COMMERCIAL BANKER

The capital functions of the commercial banker have to do primarily with the collecting and loaning of his resources by means of which goods and services are exchanged in the every-day conduct of business; that is, providing for the working-capital requirements of industry.

To comprehend this chief function of the commercial banker it is necessary to examine into the every-day financial operations of modern business. Most business is transacted on time. The manufacturer buys his raw materials on time, agreeing to pay for them after they have been converted and marketed as finished products; the same is true with the jobber and retailer who buy stocks of goods on time, payment for which is made after the goods are sold. Transactions such as these require credit to finance them. This practice of buying and selling on time has been brought about by the growing separation, as between the producer and the consumer, due to the nationalizing and internationalizing of our markets and the employment of labor-saving machinery. In the production and distribution of commodities, the interval between purchase and payment is proportional to the time consumed in this process.

Under our present credit structure, practically every business man is both a debtor and creditor, liquidating his debts by means of a similar liquidation of credits due him from others. However, it is not common that the amounts due exactly correspond in point of time with the amounts owed, in which case it is necessary for the business man to convert the credit instruments which he holds as security for money due him into means of payment either as cash or a credit balance which he can check against. This practice is termed "discounting," or the lending of credit against commercial paper, and gives rise to the item "loans and discounts" appearing on a bank statement. The commercial bank is literally a dealer in credit, financing the current needs of the people as well as, to some extent, their smaller long-term capital requirements, the larger of which is the function which has been assumed by the investment banker.

FUNCTIONS OF THE INVESTMENT BANKER

The investment house is the intermediary between governments, municipalities, or corporations desiring capital and

the investing public looking for a safe place to invest its surplus funds. As such, it has come to hold a position of increasing importance in the financial world.

Whereas in earlier days the local banker was ordinarily able to finance the needs of his community, as well as supply local investors with attractive opportunities for placing their funds, the larger demands now existing on the part of both the borrower and the lender have, in many instances, exceeded the local banker's facilities.

The investment house is called upon in such cases. These institutions, many of them national and even international in extent, play an important part in the development of the country, which may be better appreciated through a cursory examination of the necessities and conveniences made possible through the sale of securities.

The railroads on which we travel are made possible through capital raised by security issues; so with the parks in which we take recreation, the schools to which we send our children, public sanitation, flood prevention, the lumber in our house, the meats on our tables from the great packing concerns, our electricity, gas, and coal—all are in large part made possible through the efforts of the investment house. It supplies the community or corporation with the funds necessary for providing these services, safeguards, and commodities and takes in return their securities, secured by taxes in the case of municipal issues, and liens on the properties of the issuing companies in the case of corporations.

No less important a service is rendered by the investment house in providing investors with a safe and remunerative channel of investment for their funds. The growing wealth of the country, the depletion in many communities of attractive local investments, together with the large municipal and corporate requirements for improvements, extensions, and so forth, have all contributed toward developing the investment house.

The investment banker operates in a dual capacity in

advising both seeker and supplier of capital. His relationship with his corporate clients, particularly those who frequently come into the investment markets, becomes very close and he is established as the company's recognized investment banker through whom all its issues of securities are placed. The banker, to maintain this relationship, must hold himself in readiness at all times to take care of the fixed-capital requirements of his corporate clients. This requires substantial capital investment, coupled with strong banking affiliations to enable him to underwrite, pay for, and carry until sold, the securities he sells to individuals, banks, insurance companies, and other investors.

His advice to his corporate clients must be sound and embrace feasibility, method, time, and terms of the proposed financing. He must have a highly specialized organization, including a comprehensive buying organization to analyze the financial status and requirements of the corporate client and work out a sound financial plan and structure.

An efficient sales organization must be developed to enable him to distribute promptly his huge underwritings and also to provide the needed capital at the minimum rate consistent with market conditions, besides establishing and maintaining a satisfactory market for the issues. Prompt distribution is necessary to prevent congestion, which would cramp or eliminate his ability to serve his regular corporate clients. His failure to judge accurately the terms of an issue as well as market conditions may result in a heavy decline in price of the securities which would reflect unfavorably on the issuing corporation's credit and undermine the confidence of his investing clientele.

While his obligation to the issuer of securities is important, his chief duty lies in furnishing the investing public with sound securities in which to place their surplus funds, so that these funds may safely be employed to the profit of the investor, in the proper advancement of our civic and industrial progress.

CONCLUSION

By way of conclusion probably no case in the history of the world is more illustrative of the importance of credit in securing capital than the situation developed by the enormous demands of the nations engaged in the World War. The bearing of credit on the fate of nations and the world is brought most forcibly to light in the letters of the Honorable Walter H. Page, United States Ambassador to England during the trying period prior to and immediately after our entrance in the conflict.

It was a well-known fact that the submarines had been gradually though effectively destroying the means of transportation, food, and war supplies, which in itself was a serious menace to the Allied cause. British officials not only admitted this serious situation, but, immediately upon our entrance into the war, brought forcibly home to our ambassador, to be transmitted to the President of the United States, the equally serious credit situation confronting the Allied cause.

England's Allies had long since exhausted their credit facilities and England had loaned and used her own credit to an extent that was fast reaching a point where, if the submarine did not succeed in shutting off food and supplies, lack of credit would. Without the food and supplies furnished by the United States, the Allies could not have continued the war. And yet England, as admitted by her own officials, had overdrawn her credit through her American bankers to the extent of several hundred millions. How much further she could have gone before her ability to buy in the United States would have been shut off is problematical. The gravity of it, however, is emphasized by the fact that the two most important actions urged and insisted upon by British officials immediately upon the entrance of the United States into the war were the aid of our navy to break the submarine blockade and our financial aid to relieve that British credit strain. The United States did both,

a very substantial proportion of the First Liberty Loan of \$2,000,000,000 being immediately diverted to clearing England's credit obligations, making possible continued purchases in this country. Subsequent loans ran into billions. This marked the turning point in the war. The prompt throwing of America's resources and credit into the balance, plus our immediate naval aid, reduced the situation to a question not of whether the Allies would win the war, but merely a question of when.

SELF-TEST QUESTIONS

CAPITAL

1. What is capital? How does it differ from wealth? Income? Consumer goods? Is money capital?

2. Why is it necessary for us to save in order to have capital for investment? Is corporate surplus capital? Is it saved? If so, do we have to compensate the owners of that capital for their postponement of consumption? Do we save to purchase his dollar? If so, are automobiles capital?

3. Mr. Smith, a laborer, puts \$1 in the savings bank. Is he a capitalist? Why or why not? Does Smith direct social energy by depositing his dollar? Does the dollar do so? The banker?

4. Define working capital. Fixed capital. If fixed capital is the supply of our "fixed instruments" of production, how can accounts receivable be called working capital? Would a business man regard his cash in the bank as working capital?

5. Can a business borrow 100% of its working capital from a commercial bank? If not, is it entirely true that investment credit is utilized only for the purchase of fixed capital?

6. Why should a commercial bank loan on short terms of credit only? What is meant by "self-liquidation" paper?

7. "The big meat packers borrow from banks year in and year out." Is this contrary to good financial practice? Why or why not?

WHY PEOPLE SAVE

1. Explain why people save.

2. If we stopped paying interest, would we get any savings?

3. Do millionaires save to get interest? Could a billionaire consume his annual income?

4. If we all save by skimping on our standards of living, will business be good?

5. If we spend all we earn, will business be good? Will it be good indefinitely? Will we get any capital saved at all?

SOURCES OF CAPITAL SUPPLY

1. How did the war add to our capital fund supply? Was it a net addition?

2. Is corporate surplus invested in banks for the purpose of earning 3% interest? Are reserves for depreciation so invested?

3. How do our commercial banks help us to raise capital?

4. Do commercial banks buy bonds, stocks, and mortgages? Are these "loans" self-liquidating? If not, is it bad banking practice to buy bonds, stocks, and mortgages?

5. If commercial banks make self-liquidating loans, why are Federal Reserve banks needed?

6. How did the Federal Reserve System aid our nation to finance the World War?

7. How does the trust company aid in raising our capital? The insurance company?

8. Explain how the agricultural credit institutions aid in raising our capital. Why were such institutions needed?

9. Does the existence of intermediate credit banks for agriculture add to our capital supply?

10. How do fraternal orders, eleemosynary institutions, and trade unions add to our capital supply?

SOURCES OF CAPITAL DEMAND

1. Why do governments need capital? Has this need been increasing? Why? Do you regard the situation socially desirable? Why or why not?

2. Why do states and municipalities need capital? Is the volume of such borrowing increasing? Why or why not? Do you regard the situation as socially desirable? Why or why not?

3. Why do farmers need capital? Is the need increasing? Did it decline after 1920?

4. Why do railroads, public utilities, and industrial corporations need capital? What factors affect their capital needs? (For example, price, changes, changes in demand, and so forth.)

5. "We are short of homes and factories." Why? What

effect does this have on demand for capital? On interest rates? On business conditions? On prices?

6. "The copper, shoe, and oil industries have developed beyond our consuming capacity." How can you square this quotation with that in question 5 above?

7. Does total par value of securities issued reflect our savings accurately? Our new capital supply? What is the difference between savings and capital supply?

FORMS OF CREDIT

1. Define credit. Is credit capital? Could we have capital without credit? Credit without capital?

2. Is credit the same as credit instruments?

3. What is the basis of credit? Analyze this basis into its parts.

4. How has credit "speeded up the circulation of money?"

5. What are the main commercial credit instruments and how is each kind used in business?

6. Why are commercial credit instruments typically of short maturity?

7. "Commercial credit instruments are negotiable." What is meant?

8. What two main classes of investment credit instruments are there? Define each.

9. Define and explain: Common stock, preferred stock, cumulative preferred stock, and participating preferred stock.

10. What is par value, market value, face value, book value of common stock?

11. What is no-par stock? What are its advantages and disadvantages to investors?

12. Is the cumulative feature of preferred stock any good for the investor?

13. Are preferred stocks ever "as good as" bonds?

14. Define assessable stock, non-assessable stock and installment payment stock.

15. What are authorized, unissued, and treasury stocks?

16. What is guaranteed stock? Founders' shares? Debenture stock? Prior preference stock? Callable stock? Redeemable stock? Do you regard a call option at a premium as adding to the investment value of a stock?

17. What good does it do a holder of preferred stock to give him a vote if the issuing corporation does not maintain current assets at 200% of current liabilities?

18. What is a bond? A deed of trust? A mortgage bond? A debenture? A collateral trust bond? Are these investment credit instruments? Are stocks? Distinguish between commercial and investment credit instruments.

19. "A promissory note may be sold, transferred, and title passed by indorsement." Explain. Is this true of a share of stock? A bond? Are bonds and stocks not negotiable? Why or why not?

20. Why do we have stock and bond exchanges but none for promissory notes, bank acceptances, and open accounts?

21. Distinguish between coupon and registered bonds. What is a "bearer" bond?

22. What are the fundamental differences between stocks and bonds?

23. Explain the functions of commercial and investment bankers in our economic organization.

III

A GENERAL CLASSIFICATION OF BONDS

By FRANCIS A. BONNER

Lee, Higginson & Company

Bonds classified according to nature of borrower. Public and private bonds. Government, state, municipal, and territorial bonds. Foreign government bonds. Security behind public bonds. Debt and tax rate limits. Various taxing subdivision bonds. Semipublic corporations. Private corporation bonds. Public utility, industrial, and miscellaneous bond issues. Security. Senior and junior securities. Types of unsecured bonds.

SUPPLYING capital in the form of credit may be described by a simple, every-day word—"lending." Lending of capital commonly is done through the medium of the banker, either the commercial banker, who supplies it primarily for seasonal or short-time uses, or the investment banker, who supplies it generally for long-time uses. In both cases the same elements are present, the borrower, the banker in between, and the lender. The commercial banker, the national or state bank or trust company, advances cash or credit to a merchant and takes a promissory note as security. The real lender, however, is the depositor in that bank, whose funds are marshaled with those of others and advanced for the use of industry. Suppose the same borrower is in need of long-term financing, say, to build an additional plant. He goes to the investment banker. In this case there are, of course, no depositors. The investment banker may advance his own funds, or underwrite the loan, agreeing to advance the amount required; but in any case the actual lenders are to be that banker's clients, otherwise known as "investors." For now, instead of holding that borrower's written promise to pay, as does the commercial banker, the investment banker proceeds to sell it.

Whereas in the case of the commercial bank the depositor looks to the bank for the return of his savings, the investor looks directly to the borrower, and actually holds the written promise to pay in the form of a bond.

The bond, therefore, is nothing else than the borrower's promise to pay. Because there are many lenders, each advancing a small part, there are many bonds, each a promise to pay a stated amount. All, taken together, constitute the loan.

In the daily financial pages one may now and then read something like this: "Bonds were active and strong, inquiry centering early in the rails and public utilities and later extending to the industrials and other portions of the list." This suggests the first classification into which bonds may be grouped—namely, according to the character of the borrowers, or issuing corporations. Under this classification one finds oneself studying not so much the nature of bonds themselves as the nature of various organizations and kinds of enterprise. Some of these rest on foundations more widely protected and less subject to change than others. Some, as a class, have acquired a higher reputation for credit than some others as a class. The taxing power which backs up the promise of a government is taken as more ample and lasting security than that behind a railroad or public utility. Stability of railroad or public utility earnings has given bonds in that field in general a higher rating than those of industrials generally, where good or bad times have greater effect on earning power. Manufacturing industrials as a class in turn excel others in reputation as a class and so on. Thus, partly from actual conditions, partly from atmosphere considered typical of each class, we find the many types of issues ranging themselves by relative credit or risk.

THE TWO GENERAL CLASSES OF ISSUERS

At once, issuing bodies fall into two general classes—the public, represented as a borrower by its governmental organ-

ization; and the private enterprise, represented by what we usually term a "corporation." Bonds issued by a public body might be more clearly designated "civil loans," as distinct from the private "corporation loans." Bonds are nothing but promises to pay, and of all classes civil loans have retained most plainly this primary nature. Corporation promises commonly are secured by pledge of property; even so-called "unsecured" loans are secured by an elaborate trust indenture containing all manner of safeguarding agreements. Civil loans, on the contrary, are typically plain promises, based on some legislation authorizing their issue and providing a method of repayment, but surrounded by no trust indenture or other trimmings.

In the case of municipal bonds, the lender has some recourse to law in the event of default, but he does not have even that protection in the case of a national or state debt. The United States and the several states are sovereigns. Their obligations, to quote a famous phrase, are "only binding on the conscience of the sovereign." On the other hand, whereas the private loan depends for redemption and interest on the earnings of the undertaking, civil loans may look to the taxing power. Subject to certain physical or constitutional limits the entire wealth of the community may be looked on as backing up the loan. Because of the tremendous safety margin commonly resulting from this taxing power, and the good-faith record enjoyed by civil borrowers as a class, their bonds command the highest credit rating and consequently the highest prices.

First of the world's nations in financial stability and credit rank is the United States. From its very beginning it has upheld most rigorously the sacredness of funded obligations. The highest tribute to any nation, financially, is to say that it is a "debt-paying nation." Even before the World War, the United States had attained a reputation in this respect second to none. Still more prominent is its position since the war. Growth in national wealth, concentration of gold reserves, depreciation of many foreign currencies, mak-

ing our own the world's standard of value, a comparatively small debt, none of it external, all these factors, combined with that old, good-faith reputation, have put United States credit on a plane by itself. It is natural to expect United States bonds to sell higher, and yield lower income return than any others. Nevertheless, there has been a great deal of misunderstanding. Before the war we heard prices at which Consol 2s or Panama 2s were selling, at yields of $1\frac{1}{2}$ or $1\frac{3}{4}\%$, cited as measures of the nation's credit. No other nation could command any such price. What was overlooked was the artificial value of United States bonds as security for bank-note circulation. Even today Panama 2s, eligible to secure circulation, command a price to yield only about $1\frac{1}{2}\%$, whereas Panama 3s, not so acceptable, yield $3\frac{1}{2}\%$, distinctly showing the artificial value of the former.

HOW CREDIT SUPPLY AND DEMAND AFFECT INTEREST YIELDS

Then, too, even against the United States, the old, reliable law of supply and demand prevails. An old government-ownership argument was that private railroads had to pay, say, 5% or more for capital, whereas the government could get it at 2% or thereabouts, saving under government ownership 3% a year; so many billions borrowed; so many hundred millions saved. Easy. But they forgot this: That because United States bonds, approximately \$1,000,000,000 outstanding, sold to yield somewhere around 2%, it did not necessarily follow that the United States could command all the capital in the world, or even 15 or 18 billions of it, at anything like this rate. The war proved it. The First Liberty Loan paid $3\frac{1}{2}\%$. Before the last dollar showed up to wage the war, the Government was selling bonds bearing $4\frac{3}{4}\%$. Even these, some still may remember, did not always command face value. Not because United States credit went down, but because attraction had to go up to secure the needed supply of capital. Liberty bonds suggest

another reason why price and yield are an unreliable measure. That is, tax exemption. First Liberty $3\frac{1}{2}$ s and Fourth Liberty $4\frac{1}{4}$ s have identical security. The $3\frac{1}{2}$ s are fully tax exempt; the $4\frac{1}{4}$ s are not. Value of the $3\frac{1}{2}$ s is much greater to the payer of heavy income taxes. They sell at the time this is written at slightly above par to yield a bit less than $3\frac{1}{2}\%$, while the $4\frac{1}{4}$ s yield around $4\frac{1}{4}\%$.

Closely related to United States bonds are those of the territories, or insular possessions. Only the District of Columbia, Hawaii, Porto Rico, and the Philippines have bonds outstanding. With the exception of the District of Columbia bonds none are really United States obligations, but few are out and they are about to mature. Bonds of Hawaii, Porto Rico, and the Philippines are not strictly United States obligations, but so close is the relationship that they are almost considered so. This is well expressed in the opinion of the Attorney General approving Philippine $5\frac{1}{2}$ s of 1941: "This issue and sale of bonds is authorized explicitly by the National Power, and while in the strict and legal sense the faith of the United States of America is not pledged as a guaranty for the payment of the loan or for the due use of the proceeds or the observance of the sinking fund requirements, the entire transaction is to be negotiated under the auspices of the United States of America and by its recognition and aid. There can be no doubt, therefore, that the National Power will take the necessary steps in all contingencies to protect the purchasers in good faith of the securities."

Territorial bonds are as free from tax as First Liberty $3\frac{1}{2}$ s. This and the close relation with the national government put them almost on a parity in price with the taxable Liberties.

A step further removed are bonds of what might be called wards of the United States, such as the Republic of Santo Domingo. Dominican Republic $5\frac{1}{2}$ s are issued under a convention whereby a representative of the United States collects and applies all customs revenues, while the United

States guarantees the acceptance of the bonds as a valid obligation of Santo Domingo.

FOREIGN GOVERNMENT BONDS

Foreign government bonds often are secured by pledge of some specific source of revenue, but in the last analysis, they too are the plain promise of a sovereign power and "only binding on the conscience of the sovereign." Beyond intention and ability to pay, there could be only one remedy in event of default—intercession of the United States by diplomacy or physical force. Foreign government bonds must be looked at then as to both good faith of the borrowing nation and its ability to meet its debts. By far the more important is good faith. Far better the promise of a nation determined to fulfil its pledge, though its resources be strained, than that of another rich in material resources yet lacking in morals.

There are two groups of foreign government bonds. Internal bonds are those issued for loans made at home and are payable at home in the home currency. Though sold primarily at home, they may be purchased largely by foreign investors, yet still remain "internals" because of the place and currency in which payable. External bonds are those issued to obtain loans from outside investors, payable in some other country and currency. Before the war, Great Britain, France, and Holland were among the principal lending nations, sending capital to all parts of the world, taking in return bonds of the borrowing nations. These, sold to British, French, or Dutch investors, were made payable in sterling, francs, and florins, in London, Paris, and so on. Since the war, the United States has become heavily a lending nation and foreign external bonds have been sold in tremendous volume here, representing loans by Americans to all quarters of the globe—Great Britain, France, Belgium, Switzerland, Scandinavia, Central Europe, South America, Canada, Australia, and the East Indies. These are marked

for life as American issues, for regardless of other places or currencies, they are payable also in dollars in New York. Externals are looked on as in a sense prior liens on the credit of the borrower, for the importance of maintaining world credit would induce the meeting of external obligations even though there might be default at home.

State bonds, like those of the United States or foreign governments, are obligations of a sovereign. The state cannot be sued by an individual without consent of the state. Therefore, ultimate security is again good faith of the borrower. Unfortunately some of our states have a history far different from that behind the high credit of the United States. There have been two periods during which several southern states repudiated their bonds. Many investors spend time and pains seeking traces of default in foreign nations, who would accept without question the bond of any state—and justly so, for in this day of greater stability and higher standards any of them is high grade.

Aside from good faith, other elements enter into state bond security. First, constitutional or legislative restrictions on debt, ranging from laxity to greatest rigor, as in Wisconsin, where virtually no state debt can be created at all. Massachusetts and New York, on the other hand, have little or no debt restrictions. As they, nevertheless, are in the front rank in credit, it is evident that good faith is greater than written laws. Another question is the taxing power, on which payment of interest and principal must depend. It is important to consider taxes from the standpoint of the comparative burden they place on taxable property, and also the proportion actual taxes bear to the amount the state, under its tax limitations, could, if it wished, impose. To know the comparative burden, it is necessary to know the real values of taxable property, and not only the assessed values. The amount of municipal indebtedness existing likewise should be known, for the same individuals and property must be looked to for payment of both state and local debt.

Descending another step in rank we come to the county. Here we pass from the domain of sovereign power to that of the creature of the sovereign, and come to the class commonly called municipals. Now the bondholder comes into power of obtaining legal redress in case of default. Good faith is not the sole reliance now. More important becomes the question of material wealth, whether there be adequate wealth to tax. Municipal borrowers are small political subdivisions. Their aspects vary greatly; they are more liable to change than the larger state with its protection of larger numbers. We must assure ourselves that there is some permanency to existing wealth. Satisfied on these points there remains chiefly the question of validity of the issue itself. Do not understand that good faith has not still a vital bearing. Only, instead of being first as with the sovereign, now it has become possibly last.

Counties vary in importance among the states, more prominent in the agricultural states than in the populous East, where the town may be the chief subdivision. There is an even wider variance physically, for one county may be Arizona desert land and another a Cook County containing a City of Chicago. The first question then is the financial statement, showing county debt compared with assessed and real valuation; the net debt, deducting sinking funds and debt for self-supporting properties like water-works, and so forth. Population must be considered, as well as the tax rate, and provision for repayment serially or through sinking funds. We must remember there may be vast duplication of debt not showing up in the county statement, for the real debt is not only that of the county itself, but of cities and other minor subdivisions as well. As to tax rate, the limitation statutes or state constitutions place on county taxing power should be considered, since current expenses might eat up most of the revenues available from taxation, or valuations might decrease and the yield become inadequate. The histories of counties are a bit spattered, like those of the states, largely a relic of old internal improve-

ment days, but the obligation of a good county is very high grade. Counties borrow generally for such purposes as county buildings, institutions, roads, bridges, and so forth.

OTHER TAXING SUBDIVISIONS

Purposes for which counties issue bonds are relatively few compared with cities, but there is really no legal difference. City bonds are those of the strictly municipal corporation, that is, a voluntary political corporation as distinct from county, township, or district, usually involuntary. The city merges indistinctly into the town; some incorporated towns are larger than some cities, but generally town, village, and borough suggest minor political units. Here again financial statement comes first. The city statement is generally less unreliable than the county's on the ground of duplication. Here again debt limits and tax rate are important, measuring the extent to which the city must exert its powers to pay its way. The lower the debt and tax rate, generally, the greater financial stability and reserve strength. Many states have passed laws requiring municipalities to levy particular taxes sufficient to pay interest and redeem principal on their loans within a certain number of years. Illinois sets 20 years; so most of our Illinois municipal issues are 20-year serials. These are called special bond taxes and greatly increase security. Among important city assets are self-supporting or even revenue-producing properties, commonly water-works.

In addition to counties, cities, towns, a variety of minor subdivisions are created by statute to serve particular local needs. Such are school districts, and so on. Each is created and limited in territory for some special public purpose, and for these purposes only may money be borrowed and bonds issued. It is necessary with tax districts to consider carefully possible duplication of debt, through city or county debt falling on the same territory. The district itself may show a small debt, yet real debt may be large.

These bonds are payable from taxes levied for one special purpose, in other words "special taxes." Thus the one yearly real estate tax payment we make may cover a multitude of special taxes, county, park, sanitary, school, in addition to general taxes for state and city general operations.

Careful distinction should be made between tax district bonds and special assessment bonds. These are common in cities and towns, but the credit of city or town may not be behind them. In many states, including Illinois, special assessment bonds are not a general liability. They are payable not from taxes but from funds created by special assessment on property benefited, as for street improvement. Were this fund squandered, or exhausted before full payment of the obligation, there might be serious difficulty. The record of special assessment bonds has not generally been good, and careful discrimination is advisable.

Municipal bonds as a whole have been about as safe an investment as one could find. The percentage of loss has been small, and chiefly in little-known issues of obscure communities. For the average investor, however, municipal and state bonds have little appeal. The rate or interest is low and the price high because they are tax exempt.

SEMIPUBLIC CORPORATIONS

A few years ago there grew up a new type of borrower, referred to as the semipublic corporation. This is the land-bank system, created under the Federal Farm Loan Act of 1916 to assist the farmer. Our banking system provided adequate short-time credit which met the needs of practically all industry except agriculture. Largely what the farmer needed was long-term credit.

The land-bank system is twofold. First, come the Federal Land banks. They are patterned in general after the Federal Reserve banks. Twelve Federal Land banks were created to assemble farm credits as security for loans to be

employed in farm development. The banks lend money to farmers on first mortgages on improved farm land with value at least double the amount for which mortgaged. These mortgages then are pledged with the Farm Loan Board as security for Federal Land bank bonds, which are distributed to the investing public through a nation-wide group of investment bankers. Money obtained by sale of bonds is used in turn to lend to other farmers. Federal Land banks may lend up to 20 times their capital and surplus, but there is provision for automatic increase in capital so that lending can go on without limit, except limit of investment demand for Farm Loan bonds. The Farm Loan Board, appointed by the President and headed by the Secretary of the Treasury supervises the entire system.

Joint Stock Land banks were created by the same act so that private farm mortgage banking might continue. They are owned and managed by individuals, but they are supervised by the Farm Loan Board, just as are the Federal Land banks. Loans are made to farmers largely in the same manner, and the farm mortgages pledged to secure Joint Stock Land bank bonds. The chief differences in the two systems are: first, joint liability among all 12 Federal Land banks for interest and principal of the bonds issued by any one. There is no such guaranty among the Joint Stock Land banks. Each is independent and operates in its own and one adjacent state. Secondly, the United States has no representative in the Joint Stock board of directors, whereas it is permanently represented on the Federal Land bank boards. Both are termed "instrumentalities of the United States" and are tax-free, therefore commanding high prices. The Joint Stock Land banks may issue bonds, secured by approved collateral, up to 15 times their capital and surplus.

PRIVATE CORPORATION BONDS

Turning from public to private corporations, we find the source of security radically changed. We must now rely

primarily on earnings. The holder of a first-mortgage bond is apt to look at the mortgage as his primary security. Property valuation may be several times the bond issue, but let earning power drop to nothing and little remains of value. Not bricks and mortar, but what they can be made to produce in earnings determines real security. Best evidence of earning power is actual performance in good and bad times. We see, then, the relative hazard in bonds of any enterprise with no established earnings record.

Private corporation bonds range themselves naturally in the order of earnings stability. First are generally considered railroad bonds. In this leadership they have been seriously shaken by government and state regulation, holding earning power down in the face of mounting expenses and costs. One thing the public demanded was service; one thing the railroad was not entitled to, it seemed, was earnings with which to provide service. Today conditions are better, and lately we have had the unusual spectacle of railroads—of course, only the strongest—raising capital through sale of stock. Stability of railroad bonds rests on importance of the service rendered, permanence of property, and the comparative regularity of earnings. Railways change slowly in character. Some are good, some bad, some indifferent, but whatever any one, it will run pretty close to form, year in, year out, until the territory served or the road's economic position changes. Therefore, in judging railroad bonds, consider relation of earnings to fixed charges; character of territory and traffic; advantage of location; physical condition; ability of management; political condition. Quality of the bond, as set by present conditions, is apt to remain for quite a while. A feature of railroad bonded debt, spreading to other classes of public service, is the growing acceptance of that debt as permanent, never to be retired. We seldom find sinking funds. In fact, stringent rate regulation frowns on earnings which would enable retirement of debt.

Among railroad bonds a class of very high reputation is

the equipment obligation. Few railroad mortgages cover rolling equipment, generally financed separately. Other property is permanent, here today, next year, 100 years hence. Equipment moves about, making a mortgage difficult. It wears out and becomes obsolete, making short loans necessary. Cars and locomotives at first were obtained by giving notes to the builders for part payment. Today there are two general types of equipment bonds—those based on conditional sale and those on the Philadelphia plan. Under the former plan cars are sold to the railroad on a part payment, the sale being conditional on payment of interest and serial principal of the bonds issued. The bonds are direct obligations of the purchasing railroad. Pennsylvania had no law recognizing conditional sale. To get around this there was evolved the Philadelphia plan. Title to the equipment is vested in a third party as trustee, who then leases it to the operating road at a rental sufficient to pay interest and principal as they fall due. The trustee and not the railroad issues the securities, which are really certificates of participation in a trust, and known as equipment or car trust certificates, often bearing the guaranty of the railroad. Out of rentals the trustee pays dividends on these certificates and principal at maturity. Since the first cash payment and rapid reduction of the loan create a safe margin, and since the equipment can be sold readily if default occurs the character of security is very high.

PUBLIC UTILITY BONDS

Public utility bonds generally rank next to railroads. These are bonds of the companies supplying the great services now necessary to life—electric light and power, gas, local, and interurban transportation, water, telephone, and telegraph. High in favor today are the electric light and power companies. In the critical days during and after the war, these companies showed their strength. It is said not one purely electric light and power company went through

receivership during the war. This was possible because of comparatively small labor cost, improved equipment, steadily increasing demand for industrial and household uses. Hydro-electric companies enjoy nearly complete freedom from labor, fuel, and transportation troubles and as a class stand at the top of public utilities.

Gas properties suffered more during the war, partly through obsolete methods, largely through rising costs of coal, oil, and labor, more important here than with the electric companies. Stability is founded on the wide use of gas as fuel for household use, an every-day necessity varying little in good and hard times. So also the telephone and telegraph. Rapidity of the telephone's growth from a luxury to an every-day necessity is equaled if at all only by the electric light. This field is represented by the greatest public utility of all, the American Telephone & Telegraph Company. Here also there is comparative freedom from labor and transportation problems and exceptional earnings stability.

Not so the street railways. With these, and the great interurban electric systems also included in the "tractions," labor is the principal expense. There was less flexibility in raising rates to meet the rising cost. The automobile also seriously cut into their business. Traction companies were hardest hit of all public utilities. One of the most stable fields of investment became one from which capital shied. For several years bankers have been measuring strength in a public utility largely by absence of traction service. They still point with pride where the percentage is small.

But the very conditions which played such havoc among industrial companies when war-time prices collapsed, directly helped the public utilities, tractions included. They had no high-priced inventories to write off. Expenses declined, labor became efficient, higher rates were granted. Public utilities have been among the most popular bonds in recent years, not only for normal stability, but because they were one class distinctly improved by falling prices.

In any public utility, population served is important, for

the greater the volume and diversity of demand, the greater the stability of earnings, efficiency, and margin of safety. Management and the status of relations with the public are important, as are also franchises, since public utilities are naturally monopolies, often using public highways. Franchises are generally conceded less important today.

INDUSTRIAL BONDS

Passing to the industrial group, conditions are very different. Here management has full sway for reaping gains through increased efficiency and profits, limited only by competition and capacity of production and distribution. Able management creates bonded debt only under compulsion of some advantage to be gained, and having created it, desires as speedily as possible to liquidate it from earnings. On the other hand, there are greater chances of fluctuation as conditions change. This makes desirable ordinarily a shorter term for industrial loans, and the sinking fund is regarded as almost an essential feature, unless the bonds are paid serially. It is a tribute to the stability of modern industrials that, whereas not many years ago the more conservative bond houses seldom would touch an industrial bond, today some industrials vie with public utilities in established earning power. Bonds of the better companies are among the most conservative of investments.

With industrials, then, earnings records and prospects must be studied more carefully. What are earnings today in relation to fixed charges; what has been earned in times of depression and over an average of good and bad years? What are the prospective earnings, based on probable demand for the product, and economic advantage of the company in its competitive field? What is the management's ability as indicated by margin of profit, turnover of capital and inventories, amount of outstanding receivables, ratio of bad debts? What are the reliable physical values and what character of claim have you on the property?

There are many kinds of industrials. Certain broad principles underlie all, but each is so different in some respects that each must be judged by its own standards. Factors unimportant to one may be vital to another. One may require heavy fixed assets, another liquid assets; one has large margins of profit with slow turnover, another, small margins with rapid turnover. In the steel and iron industry, the following should be considered: location of plants with relation to raw materials and markets; competition; completeness as a unit from raw material to finished product; how well plants are balanced; character of product and class of customers. In the textile industry, class of textile produced, whether woolens, cottons, and so forth; semifinished or finished and who uses it; ability of management in purchasing and selling; labor supply, as skilled or unskilled labor is required; labor conditions; capitalization and overhead per spindle, and so forth. In machinery manufacturing, what is made; how and where distributed and to what kind of industry; investment in plant and equipment, likely to be heavy, and to what extent in highly specialized kinds; turnover and margin of profits; and the situation as to patents. In foodstuffs, if packing, ability of management, rapidity of turnover, floating debt; if prepared cereals, practice in purchasing grains, stability of distribution, trade-marks. For instance, a name like "Quaker Oats" may be worth millions as insurance of earning power. In the oil industry, whether producer, refiner, or both, character of acreage and production, whether "flush" or "settled"; whether the outfit is complete for transportation and marketing; earnings with relation to depletion charges. In mining, kind of metal produced; cost of producing and how it compares with other producers; depletion and probable life of the mine; markets and the outlook for consumption; competitive situation set by freight rates. And so on with coals, sugars, chemicals, farm implements, automobiles and accessories, leather and shoes, rubber, tobacco, amusements, and what not. Each must be looked at from some different

angle, and judged by intangible tests going beyond what certified audit or engineer's report can reach. At the bottom is one primary purpose: to judge prospective earning power under the worst conditions probable.

MISCELLANEOUS BONDS

Real Estate Bonds. We have now covered the classes of bonds most prominent in the national financial markets. There are other classes, more often local in distribution and market, regarding which only a word can be said. First, real estate issues, the familiar real estate mortgage sold in the form of bonds to many lenders. These have become prominent with the financing of large apartment, hotel, and office buildings. Remembering conditions of the building industry, it is well to ask about the conservatism of valuation. Information should also be had as to the rate of repayment; whether there is fee ownership or leasehold security; details about insurance, purpose of the building in relation to character and outlook for the neighborhood, and the prospective rentals, should building some day catch up with the shortage. Marketability should also be considered in the event the bond is to be sold at some future time.

Irrigation Bonds. Irrigation bonds sprang up with western development for reclamation of dry places, as drainage and levee district bonds in other sections for reclamation of wet places. They have not been in great favor, largely on account of unfamiliarity in the East, partly because of some unhappy records. In some states they are really municipals and properly tax district bonds. In other states private irrigation companies predominate. In either case the loan generally is for future development, and value of security depends on the success of the development, so that careful discrimination should be exercised.

Timber Bonds. Timber bonds, like oil and mining, depend for security on removal of a natural resource which, in time,

may disappear. There should be a margin of safety to begin with, assured by conservative estimates of quantity and values; assurance of steady income through profitable marketing of the product; and assurance of steady reduction of the debt by serial maturities or sinking fund proportioned on production, at a pace more rapid than removal of the timber.

Steamship Bonds. Steamship bonds in a way are similar to equipments. They may be secured by several ships or a single vessel; but, in any case, first to be considered is the margin of safety in values of the property pledged, at the time of purchase and through prospective earnings. There must be provision for retirement of the debt faster than depreciation of the vessels. Insurance is of unusual importance; it should afford a safe margin over the amount of the mortgage and provide for unusual marine liabilities.

DIFFERENT FORMS OF PROMISES TO PAY

So much for the various kinds of borrowers. Now, any of them may choose to issue his promise in one of a number of forms. If his credit is high he may sell an unsecured promise; or he may prefer a higher price for a first-mortgage bond; or circumstances may compel a more complicated procedure. Thus we come to another classification—that according to kind of security. At once all bonds fall into two general groups — “secured” bonds, where there is a pledge of property; and “unsecured,” where there is not.

Of secured bonds, at the top, of course, stands the first-mortgage bond. As the name suggests, it is secured by a mortgage or trust deed conveying specific property to a trustee to be held for the bondholders in event of default. It has first claim on this property and, therefore, on the earnings therefrom. Too much stress often is placed on bare property values in considering mortgage bonds, as we have already seen, for appraisals and high valuations of bricks, mortar, and machinery avail little if the plant can-

not be made to earn a profit. Yet, as earning power is the primary requisite, the investor's position relative to that earning power is vital; and the benefit of first-mortgage security is that, should a scramble for the assets come, the investor gets first call on his share.

First-mortgage bonds frequently contain the "after acquired property clause," whereby they not only are a first mortgage on all property now owned but become so on all hereafter acquired. While increasing bondholder's security, it may work hardship on the corporation, especially if the mortgage is "closed"—that is, if no more bonds can be issued under it. Opportunity may come to acquire new property. Since the old first mortgage must cover it, any new loan for the purchase must fall back on second mortgage. To provide for this, indentures often authorize bonds for future issue to care for reasonable requirements. It is like cutting a suit large enough for a growing boy. The mortgage is then called "open" until all bonds have been put out. Or, as in many railroads or public utilities, it may be an "open end" mortgage, with no restriction on amount at all except ratios to property value and earnings or ratios to subordinate stock equities. Even this may not fit the case. There may be existing mortgages on property acquired so that the old bonds can't have a first mortgage. Therefore, it is generally provided that property may be acquired subject to existing liens or to purchase money obligations given in payment. Thus our first mortgage has now become a second or junior mortgage as to the new property and we see how the complexities of mortgage structure are beginning to creep in.

If corporations never grew, or combined, or refinanced, we might have nothing but simple first or second mortgages or debentures, but reality is not so simple. Properties coming together may each have several kinds of mortgage already on them. Think of the mortgage as a blanket on a table top. The first mortgage is the first blanket, "next to the property," as they say. Another blanket over this would

be the second mortgage, another a third—and you are “far removed from the property.” Put several tables together and the blanket may be first on some, second on others, and both or neither on a third. To get a good idea of the blankets, study White and Kemble’s or Fitch’s railroad mortgage maps, where mortgage positions are drawn as layers one upon another.

SENIOR AND JUNIOR SECURITIES

The divisional bond is a first mortgage on part of a property. The term arises from the railroads. Most large systems are consolidations of many small lines, each of which may have had its mortgages. New mortgages on the consolidated property left these underlying mortgages on the divisions outstanding. The term has spread and may mean a mortgage on one transmission line of a public utility—or one branch of an industrial. Generally it is the direct obligation of the consolidated property, the properties having been actually merged and the divisional bonds assumed. It may bear only the guaranty of the consolidated property, or may stand alone on its own merits. It is well to examine whose is the obligation and whether the property covered is self-supporting, or, easier to determine, whether it is essential to the whole. If self-supporting and essential, it may be strong security even if the whole is weak; if non-essential and unprofitable, it may be weak even if the whole is strong.

Sometimes, where it is desired to raise money by a new first mortgage and an old mortgage is in the way, a new corporation is formed; the new mortgage goes on its property and the property is leased to the parent company. Benefit of the older corporation’s credit is thus secured, and again we have a form of “divisional” bond.

Bonds in the first-mortgage group are referred to often as the “senior” securities. Those farther removed from the property are referred to as “junior.” They may be

issued under second or third mortgages. They may be "consolidated mortgage" bonds on a consolidated property. If such, and subject to underlying divisional issues on parts, they are otherwise known as "general mortgage bonds," representing a charge on only the excess above the first mortgages.

Now imagine a property represented by two tables. One has a mortgage blanket already on it, the other none. A new blanket is thrown over the two. It becomes a first mortgage on one, a second on the other. It is provided that when the time comes to pay off the older first mortgage, the funds must be obtained by selling bonds issued under the new mortgage, whereupon, the old blanket having been removed, the new one becomes a first cover on both tables. Such is the first and refunding mortgage. It is a first mortgage on part, a refunding mortgage on part. If the first-mortgage part is important, it may be the practical equivalent of a first mortgage. It is far different from a first refunding mortgage. That may be purely a second or even later mortgage with underlying blankets everywhere. The only true "first" about it is that it happens to be the first blanket which provides for refunding the rest when they come due. In other words, it is merely a refunding mortgage which happens to be the first one issued. The word "first" is apt to mislead unless one is careful.

ETHICS IN BOND TITLES

"First lien" or "prior lien" are other terms often misused to designate inferior mortgage position. They are names more euphonious than straightforward. In fact, the word "lien" often is a signal for closer inspection of security, since it is sometimes used where there is no mortgage on real property at all, but only a pledge of capital stock equities. While the bonds may have a first lien on that stock, they may be a cousin third removed from the physical property.

This suggests the importance of studying real security regardless of the name. It is a natural impulse to choose the best sounding name at hand when christening a new bond issue; that is, one as near as possible to that of the rich uncle, the First Mortgage. No one grows enthusiastic over a fifth-mortgage bond. Rather make it a first mortgage on some switch track, provide for future refunding of the four claims ahead, and call it a first and refunding. Recent years have seen great advances in banking ethics surrounding bond nomenclature. Violence done to common honesty in this regard is far less frequent than it was. The reputable banking house today is very scrupulous as to honest terminology. On the other hand, some of the old mortgages may have come to occupy a better position than indicated by the old title of general, consolidated, improvement, extension, refunding, or what not. For instance, Chicago, Milwaukee & St. Paul General Mortgage Bonds are practically the first-mortgage issue on all the lines east of the Missouri River.¹

Among bonds, a rose by any other name does not always smell as sweet. It is always well to analyze the rose, not only what it actually is today, but what it may be tomorrow. Examine, for instance, in the case of refunding issues, the limitations on further additions to bonds having a prior claim. Underlying issues should be closed, so that future growth in equity may strengthen the position of the refunding bonds.

Collateral trust bonds are those secured by pledge, not of physical property, but of other securities deposited as collateral. They were used at first by railroads to group together several small issues as security for one large, marketable issue. Then they spread to the industrial field, and have now come to be rather typical of public utilities,

¹Since the foregoing was written, the Chicago, Milwaukee & St. Paul Railway has gone into receivership and it is interesting to note that upon declaration of the receivership the court ordered the receivers to pay interest on the general mortgage bonds—among a few other underlying issues—without interruption. This demonstrates clearly the manner in which well-secured, underlying bonds are safeguarded even in times of trouble.

where wide-spread groups of public service companies have been collected into great families or holding companies, such as the Middle West Utilities Company. Collateral may consist of first-mortgage bonds of subsidiaries or of merely the capital stocks of these subsidiaries, themselves preceded by large amounts of bonds. That may make a big difference. We should know the restrictions on creation of additional charges ahead of those represented by our collateral, and the ratios of value and earnings not only to the bond we hold alone but to all other obligations of the family of properties as a whole. Collateral trust bonds are sometimes called "secured bonds."

Sometimes bonds of entirely independent, marketable issues are pledged, as in the case of the Union Pacific Secured Notes. Sometimes bonds of some prior issue are pledged under a new mortgage to give the latter a part of the strength of the former, and we have a "refunding and collateral trust" mortgage. Sometimes collateral may consist of commodities, as copper was pledged under the Copper Export Association notes, or coffee under one of the Brazilian issues.

TYPES OF UNSECURED BONDS

Next come the "unsecured" or general credit bonds. These in turn fall into two general classes, as the promise involved is a fixed or a conditional obligation.

Assumed bonds are among the strongest of the fixed type. They may have been issued by some small undertaking, perhaps secured by mortgage, but upon merger or consolidation have been assumed by the parent company as its own obligation. Aside from claim on the smaller property, they have thus the protection of the larger corporation's general credit. Guaranteed bonds also indicate a double obligation, that of the original issuing corporation and that of the corporation guaranteeing them. The guarantor's obligation may be directly endorsed on the bonds, which are then "guaranteed by endorsement"; or may be embodied in some

contract, the commonest form of which is the lease. There may be a personal guaranty, as Mr. Armour's guaranty of the Sutter Basin bonds; or a government guaranty, as the Canadian Government guaranty on some railroad issues. Guaranteed bonds are considered less secure as a class than assumed bonds; they rest more directly on the value and earning power of the property acquired or leased, because of the greater ease with which a guaranty may be sloughed off in receivership or otherwise. The first act of a receiver may be to abandon some leased property which is a white elephant.

Guaranteed bonds of the strongest type are found among the joint bonds, those which are the obligation of several guaranteeing corporations. A splendid example is the Chicago Union Station First-Mortgage Bonds—a first mortgage on the new Union Passenger Station properties, and guaranteed jointly by the Pennsylvania, the Burlington, and the St. Paul railways. Kansas City Terminal First-Mortgage Bonds are guaranteed by 12 roads, including the Santa Fe, the Union Pacific, and the Burlington—three of the strongest in the country. Both of these terminal issues are jointly and severally guaranteed; if one road fails, the others become liable for its portion. Such joint and several liability adds greatly to the strength, as may be seen by contrast with the Copper Export notes, where each guarantor undertook to protect only his proportion. Joint bonds may be *direct* obligations of two or more companies and not only obligations by guaranty. A classic example was seen in the famous Northern Pacific—Great Northern joint bonds, the direct obligation of both railways, secured by pledge of their Burlington stock.

Debentures are a straight credit obligation, often referred to as "notes," especially if the term is short, or simply "bonds" if the term is longer. They are plain, unsecured promises, but given under an elaborate indenture providing protective machinery and agreements. They have come to be very common, especially among the strongest corpora-

tions, and usually contain provisions restricting creation of mortgages ahead of them, or requiring equal security with any such mortgage.

Receiver's certificates, the strongest type of unsecured obligation, are short-term notes issued under authority of the courts to obtain money for continued operation of a property in receivership. They take precedence over everything else, even first mortgage, except wages and other necessary operating expenses. They are usually paid off before the property passes out of receivership.

All of the foregoing "unsecured" promises are obligatory on the borrower. There is a second class which is only conditional or optional. They hold, naturally, lowest rank of all, for there is no obligation at all except under certain circumstances. Such bonds arise largely through reorganizations, being given in exchange for some other issue and made conditional in order to cut down fixed charges. Most commonly they are known as "income" or "adjustment" bonds. In some cases, interest is payable if earned; in other cases, only if earned and declared by the directors, just as a dividend on a stock. Sometimes the payment is cumulative, sometimes non-cumulative, all as worked out in the battle of compromise involved in a reorganization. Another conditional type is the "participation bond," which, in addition to its fixed rate of interest, participates in the stockholder's earnings at a stipulated rate. Such issues are not common.

Finally, in considering the various distinct bond types, it should not be thought that all bonds fall clearly under any given head. Almost any combination may be found in a single issue. Tracing the combination, and more important, what it means in dollars-and-cents worth of security, may be as intricate a problem as a chemical analysis. The thought which should be left in closing is this: after the analysis is completed, the character of the security is less important than the character and standing of the corporation whose promise it is. The utmost skill should be

striven for in judging the merits or possible weaknesses of bonds, but in the end one's best reliance will be upon the character of the bank or banking house which offers that bond with its recommendation. Granted the investor has the ability, he probably has neither the facilities nor the time for any test remotely approaching that imposed by the many minds that work together in the banker's examination. He should select a bank or banking house of the completeness of whose investigations he is certain, on the capacity of whose judgment he relies, and in the honesty of whose recommendations he has confidence. Then let him take their advice.

SELF-TEST QUESTIONS

GENERAL QUESTIONS

1. Who are the ultimate lenders in the case of: (a) a commercial bank loan; (b) a bond issue?
2. How does a bond differ from a one-name promissory note of the issuing corporation?
3. What two main classes of bonds are there, according to the issuing corporations?
4. What are "civil loans"? What is their security?
5. Has the bondholder any recourse if a state or nation defaults on its bonds? A county? A township?
6. What factors determine the investment standing of a national bond? A state bond?
7. In 1920 the French Government had to pay around 10% for money borrowed in the United States. Why?
8. If our national and state governments issued 20 times as many bonds as they now have outstanding, would these bonds sell to yield the investor around $4\frac{1}{2}\%$? Why or why not?
9. What gives the Panama 2s fictitious value? The First Liberty $3\frac{1}{2}s$?
10. "Tax exemption of government bonds draws capital funds out of industry." Do you agree? Why or why not? If you do agree, is it necessarily bad for our country?
11. Why should wealthy bankers favor elimination of tax exemption of government bonds?
12. What is the security behind bonds issued by our insular possessions? Is it adequate?

13. What is the investment status of bonds issued by political units which are "wards" of the United States, and why?

14. Explain the difference between "internal" and "external" bonds of foreign nations? Which would you rather own and why?

15. Aside from good faith, other elements enter into state bond security. What are those "other elements"? Try to appraise their relative importance to the investor.

16. What factors determine the investment status of county bonds? Which is more important as security—moral risk or capital security? Why?

17. Why are city or township bonds more easily analyzed than county bonds? What facts are important to the investor who is considering the purchase of a city bond and why?

18. List and define the so-called miscellaneous municipal bonds. What are the main facts to be obtained in analyzing such bonds for investment purpose?

19. Why is it necessary to distinguish between tax district and special assessment bonds?

20. Why have municipals but little appeal to the average investor?

21. What is the security back of the bonds issued by the Federal Farm Loan banks? By the Joint Stock Land banks?

22. What is the primary security behind the bonds of private corporations and why?

23. Why are railroad and public utility bonds in such a strong investment position?

24. What factors determine the value of railroad bonds as investments? Why is railroad bonded debt considered permanent?

25. What are equipment trust notes? How do the notes issued under the Philadelphia plan differ from those issued under the conditional sale (New York) plan? Which would you rather invest in and why?

26. Define the various classes of public utility bonds. Which classes offer the safest investments and why?

27. Why do railroads and public utilities benefit by a period of falling prices?

28. What factors need to be considered in analyzing a public utility bond?

29. Is it easier or more difficult to analyze an industrial bond than it is to analyze a public utility bond?

30. Why are industrial bonds usually retired by sinking fund or serial maturity?

31. What factors need to be considered in analyzing an industrial bond and why?

32. Should an oil company ever issue bonds? Why or why not?

33. What are the principal factors to be considered in purchasing farm mortgages? City real estate bonds?

34. Answer the foregoing questions as applied to irrigation bonds; timber bonds; steamship bonds.

CLASSES OF BONDS ACCORDING TO SECURITY

1. What is a first mortgage? A deed of trust? An indenture? A first-mortgage bond?

2. Why is a first-mortgage bond a safer investment than a debenture bond of the same corporation?

3. What is a "closed" mortgage? An "open-end" mortgage? A limited open-end mortgage? Suggest limits to further issue of bonds under a limited open-end mortgage which would satisfactorily safeguard investors.

4. What is the "after-acquired property clause"? What is its significance to a bond buyer?

5. How may a corporation avoid the "after-acquired property clause"?

6. Define a junior bond; prior lien bond; first and refunding bond, first refunding bond, second-mortgage bond; blanket mortgage bond, consolidated mortgage bond; divisional bond.

7. "A bond is evidence of a contract. What a given bond is depends upon the terms of that contract." Do you agree? Why or why not? If you agree what is the contract?

8. May a fifth-mortgage bond ever be a safe investment? If so, under what circumstances?

9. "In the case of refunding issues, underlying issues should be closed." Why or why not?

10. What are collateral trust bonds? What would you want to know about them before you bought them?

11. What are debenture bonds? Assumed bonds? Guaranteed bonds? Income bonds? Adjustment bonds?

12. Why are debenture bonds typically issued only by very strong corporations?

13. Why is an assumed bond better than a guaranteed bond?

14. What are joint bonds? Why are they ever issued? What determines their investment status and why?

15. What are receiver's certificates? Why are they such good investments?

16. Define leasehold bonds; bridge bonds; terminal bonds; land-grant bonds; ferry bonds; participation bonds.

IV

A CLASSIFICATION OF CORPORATION BONDS

By FREDERICK R. FENTON

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Importance of corporation finance to growth and prosperity of country. A corporation bond more than a promise to pay. Impossibility of "rule of thumb" classification of bonds. Secured and unsecured obligations. Ethics in bond titles. Permanent and temporary debt. The two forms of wealth. Open and open-end mortgages. The chief qualities of security. Collateral trust bonds. Equipment issues. Guaranteed bonds, and the fallacy of a popular conception of the function of the guarantee. Bonds called "legals." Sinking funds. Callable provisions. Electric railways an outstanding achievement. The wide variety of industrial bonds. Bond business in no sense a get-rich-quick enterprise.

THE preceding chapter discussed the two great classifications of bonds; that is, civil loans and corporation bonds. Either class presents a great field for study. Two subsequent chapters will discuss, respectively, government bonds and state and municipal bonds in greater detail. Corporation bonds, under their broad classifications of industrials, utilities, railways, and real estate bonds will also be given detailed treatment. The purpose of this chapter on the classification of corporation bonds is to give the student of investments a more general understanding of corporation bonds, in preparation for the discussions on various types of such bonds which are to follow.

In normal times, that is, when the country is not at war or under other abnormal stress, the greater amount of securities issued annually is for the purpose of financing corporate business. There are about 350,000 of these business organizations, called corporations, in the United States. They create the bulk of the nation's wealth. Our transportation is supplied almost entirely by corporations that

specialize in the railroad and steamship business. Our public utility services, such as electric light and power, electric railways, gas, telephone and telegraph services, are almost wholly provided by corporations which have invested billions of dollars in these businesses. Municipally owned utilities, except water-works, have developed only a very minor part of this wide-spread service that is so essential to modern life, convenience, and health. More than 85% of all the wealth and more than 85% of employment in all manufacturing enterprises is produced by and is provided by industrial corporations.

The foregoing brief reference to the predominating position of corporate business in the nation's welfare and progress should indicate to any thoughtful mind the necessity for investing, putting money to work, in corporate business. The sound financing of worthy corporate business is an absolute essential to prosperity. This financing can be accomplished in several different ways, or combinations of ways, by stock issues, which represent ownership interest, and by credit. Credit may take the form of short-term borrowing, either at a bank or by the corporation's selling its notes in the commercial paper market. Or it may take the form of long-term borrowing, the issuing and selling of the corporation's bonds. It is this long-term borrowing on bond issues that we are concerned with in this discussion of corporation bonds.

A BOND MORE THAN A PROMISE TO PAY

The common definition of a bond is that it is a promise to pay. That is correct, so far as it goes, but it is only the beginning of the definition of a bond. A bond is a great deal more than a promise to pay. It is a right to participate in the benefits, limitations, and provisions of a contract. This contract, commonly called the mortgage or trust indenture, reenforces or restricts the promise to pay at every step. It almost wholly determines the quality and the quantity of

security, or lack of security, behind the bond. Again examine the last sentence and note the qualifying phrase that the trust indenture "almost wholly determines" the quantity and the quality of the security. "Almost wholly," but not absolutely. Unforeseen conditions may develop that increase the security, or ability to pay. Unforeseen contingencies may rise up to weaken or even nullify the most important covenants of the trust indenture. This point is stressed because it is not desired to add anything to the popular fallacy of trying to standardize everything. Beyond a narrow limit one cannot classify and standardize bonds. Any proposed bond issue confronts a situation that is unlike the situation that confronted any previous bond issue. It must be set up to fit that situation. In doing this there is a constant demand for financial knowledge and ingenuity that is comparable to the demand that improvements in radio, automobiles, medicine, and other sciences are constantly making on engineering experts, physicians, and other professional specialists. Bond issues are set up quite a bit differently now than 10 years ago. Ten years from now still more changes and improvements will have come about.

Probably the first natural division in a classification of corporation bonds is based on the subject of the bond issue. What kind of business is issuing the bonds? Is it an industry, a utility, a railroad, or is it a real estate bond? The answer to the question naturally places the bond in one of those four simple and very general classifications. Then we may ask: What is the purpose of this bond issue? And that answer classifies the bond still further. It may be for refunding, construction, expansion, merger, additional working capital or for other purposes. We ask again: What security is behind this bond? And immediately the answer classifies the bond still further, as a first mortgage, second mortgage, collateral trust, debenture, or some other type of bond. Then we enquire as to the provisions made for paying the bonds and at once we bring up other classifying

characteristics, such as sinking funds, serial maturities, callable, and convertible bonds.

It is at once very apparent that a bond may have quite a few of these different classifying characteristics. In fact, bond classifications sometimes appear confusing in textbooks. But if the reader will remember that any classification is based on these simple questions, such as, what kind of business, what is the security, what is the purpose, and what will be the method of payment, he will find classifying quite simple.

SECURED AND UNSECURED BONDS

The security of a bond is generally considered to be its foremost quality. By security is meant not only the property mortgaged or pledged to secure payment, but also the earning power of the enterprise, the ability and integrity of the management, and the painstaking consideration relative to the enterprise to determine what kind of financing should be used. In some cases a stock issue may be preferable; in other cases, a bond issue. But always there must be a thorough conception of the proper financial structure best adapted to the enterprise, for the safety of the investors and for the fair treatment of the enterprise itself. It makes little difference to the average investor whether a bond is an industrial, a utility, a railroad, or a real estate obligation so long as it is properly secured. We have, then, secured and unsecured bonds. The secured bonds divide further into mortgage bonds, which are secured by a mortgage on property; collateral trust bonds, which are secured by a pledge of securities; equipment trust bonds and certificates, and certain guaranteed and assumed bonds.

Among the secured bonds, the first-mortgage bond has primary consideration because of its long and universal use and its strong position. It has a claim prior to that of the owners of the property mortgaged. Taxes and court decrees are the only claims that come before it. Its security is pri-

marily a mortgage on real estate or other physical property and it also may include a mortgage on certain rights and privileges, such as franchises and leases. However, the general acceptance is that a first-mortgage bond is secured by a mortgage on real estate and other physical property. It may include also a claim on certain rights and privileges, but if it is solely a mortgage on a leasehold or some right or privilege it should not be unqualifiedly classed as a first-mortgage bond. It should be called a first-mortgage leasehold bond, or some such title that clearly shows the nature of the property or rights that are mortgaged as security.

Misnaming or equivocating in bond titles is absolutely indefensible. However, equivocating or misrepresenting in bond titles is not frequent, especially when you consider how difficult it often is to describe in one short title an adequate definition of a bond, which is reenforced, safeguarded, and restricted in every direction by a trust indenture in the nature of a mortgage, which indenture often covers 100 to 300 printed pages or more. The tendency is to make bond titles as clear, simple, and truthfully representative as is practicably possible. The Investment Bankers Association of America has continually and vigorously opposed every trend toward complex or ambiguous titles. Bond titles cannot always be fully clear to the great mass of the people who are meagerly informed on investments, but they always should be clear to bond men and to investors of some small knowledge.

First-mortgage bonds are not a small and simple classification. The mortgage may be closed. It may be an open or open-end mortgage. The closed mortgage may apply to certain described property. It may contain an "after-acquired property clause," in which case it will apply to property that is acquired at any time during the life of that mortgage. Thus we have some very important distinctions in the first mortgage and the value of the security it offers. To realize the full import of these distinctions it is helpful

to consider the changing attitude toward debt that has come with the rise of the corporate form of business.

PERMANENT AND TEMPORARY DEBT

When the era of railroad-building and industrial development first gained headway in this country, it was customary to do most of the financing by stock issues. That was an entirely sound procedure. There should be built up, generally, by stock issues a strong basis for bond equities before bond financing is desirable. Later it became necessary to issue bonds to finish the new railroads and industries or to extend them. So bonds were issued somewhat as an expedient. Corporate debt was still looked on as was private debt, a thing to be avoided. There were in those days neither the credit facilities nor the basis for credit facilities that exist today. Consequently, it was the practice to issue closed mortgages which absolutely limited the life of the debt and called for its liquidation at a certain time. To offer further inducements and make mortgage bonds more attractive, the "after-acquired property clause" was adopted. The general idea that debt must be temporary was the old conception. It apparently had not entered very many minds that debt might advantageously be of a more permanent nature.

The use of the closed mortgage naturally puts restrictions on future financing by bond issues. The "after-acquired property" provision tied another string to it. This situation proved embarrassing to many enterprises as the country developed. Earnings could not always provide both fixed and working capital. Second, third, fourth, and other junior mortgages were resorted to. Refunding issues, of course, were put out and a number of railroads issued bonds for a hundred years or more. Gradually came the conviction that some degree of permanency of debt might not be an evil but might be a necessity and an advantage. It took a long time to reach this stage simply because for centuries

business had been done almost entirely by private individuals and by partnerships, both of which are necessarily short-lived. With a corporation, which may be chartered in perpetuity, the safety of a debt may endure through many generations.

It has been said that a considerable part of the American railway debt will never be retired, because so much of the railroad capitalization is represented by funded debt. It is not desired to express a definite opinion on that point, or whether or not permanent debt may or may not be desirable. The whole point is that so long as there is sufficient equity and security as a basis for a bond issue, permanent debt is all right. But who can say that any business enterprise, even a government, will provide the basis for safe bond issues 100 years from now. As long as the railroads are the vital and economic necessities they are today, as long as there is a sufficient basis for bond issues, there is little or nothing to be gained by periodically shifting their funded debt into some other form.

All property and all wealth are held in just two forms, either in the form of ownership of property and rights or ownership of loans. Certificates of stock are the most widespread evidences of ownership of property. Bonds and notes are the most wide-spread evidences of ownership of loans. So long as the proper relationship between ownership equities and bonds is maintained, there is little purpose in liquidation. In fact, there is often a distinct advantage in debt because capital obtained by creating a debt—by issuing bonds—is frequently more economical than by selling ownership shares, stocks. Sound bond issues mean, for the capable and more efficient business, cheaper and more abundant capital to be used in creating more wealth.

THE OPEN-END MORTGAGE

From the age-old closed mortgage and its newer "after-acquired property clause" several new forms of securities

have developed. One is the open or open-end mortgage bond. Another is the equipment trust bond. The open mortgage has come into use largely during the last 25 years. It is concurrent with the change in the attitude toward debt as a permanent necessity rather than a temporary expedient. Open-end mortgages imply that the amount of the bond issues has been determined but that the bonds are to be issued at different times according to the provisions in the mortgage. The open mortgage may specify only a provisional limitation in the amount of the bonds that may be issued under the mortgage during the life of the mortgage. The conditions under which bonds may be issued under an open mortgage are limited by the contract, or mortgage, and these limitations are scarcely translatable into a classification. Each such issue is in a class by itself and its position may be determined only by studying the indenture and the financial and economic position of the enterprise. Usually, though, these limitations are determined by gross or net earnings.

It is earnestly suggested to those who are seriously studying the subject of investments that they adopt the case-book method of studying this subject. In law school the law is learnt from the study of actual cases, as well as from the perusal of Blackstone and other texts. In this connection, it is recommended that the financial history of one or more large corporations be studied. On this subject of mortgage bonds, the New York Central, or any of the larger old lines or systems, affords an excellent study. The study of the financial history of some of the older railroads will give more information than will the study of the average industrial corporation.

As a basis for a better understanding of bonds it is further recommended that you read *Individual and Corporation Mortgages*, by William Lilly, issued by the Investment Bankers Association of America. It is a small book of less than 150 pages, but for the man who has not studied law it should be most valuable.

While it is not intended to advocate any class of bonds as superior to any other class, there are several points in this connection which should be given consideration. Undoubtedly the security for certain issues should be a closed mortgage. In other cases the open mortgage may be more equitable and sound. Doubtless, the public will long continue to look upon all debts as obligations with a definite period for liquidation. Many debts should have that limitation undoubtedly. For example, maturity of a bond issue on equipment should probably not run beyond the life of the equipment which is the security for the issue. That is the practice in railroad-equipment issues. But the roadbed of the railway endures for many generations. There an entirely different situation prevails. Every bond issue is a question of relationships and ratios. No matter how you endeavor to classify and standardize bonds, each issue contains its own individual, different relationships.

FOUR QUALITIES OF SECURITY

In considering the security for a mortgage bond, the property should possess at least three qualities. They are: continued usefulness, substantial value throughout the life of the bond issues, and a substantial measure of salability—trading value in a careful sale, not in a forced sale. Those three qualities might seem all that are necessary, but they are not, because they do not consider all the relationships. The productive power of the property also must be considered. A corporation's earnings are a vital part of the security. A company earns money on the strength of its fixed assets, on the strength of its working capital, on the economic position. There is a very proper ratio between all these different elements. A first-class railroad may bond an extension up to its full value and the bonds be eagerly sought by the wisest investors because the road's position and its earnings justify the issue. A public utility may bond an extension to 75% or 80% and the bonds be con-

sidered among the most desirable, for the same reasons. An industry may do the same thing, but coming down to the basic and the so-called safest business of all, we find that farm mortgages are often limited to 50% of the physical valuation and that city real estate mortgages generally are restricted by many authorities to a maximum of 60% of the appraisal. It is a question of earnings, as well as a question of the value of the property. A 40% mortgage on a property might be very unsafe if the property did not have producing power.

The foregoing discussion touches on investment analysis, but that is why we have bond classifications as a starting point for investment analysis. There are numerous types of first-mortgage bonds. Each type can be determined only by analysis.

COLLATERAL TRUST BONDS

Collateral trust bonds are what their name indicates, a pledge of securities which are deposited with a trustee to secure a bond issue. Collateral trust issues are frequently used in mergers and consolidations of railroads and utilities. The pledging of securities and notes as security for bond issues of finance companies and investment trusts also is a familiar use of this type of security. Holding companies find them excellent in giving marketability to small issues. The sound securities of several small subsidiaries deposited to secure a larger issue of bonds by a railroad or a holding company serve to enable the parent company to obtain capital more advantageously. There probably would be a smaller demand for these separate small issues than for one large issue by the well-known parent company.

Many different kinds of corporations now use collateral trust issues. The "after-acquired property clause" is one of the compelling forces. A large company may acquire a smaller company. Instead of merging its corporate personality in the large company the parent company continues the smaller company as a subsidiary and definite corporate

being because it may not wish to bring the smaller company's property under the "after-acquired property" clause of an underlying mortgage. Or the laws of a state may compel the chartering of the subsidiary company in that state. The collateral deposited with the trustee may be securities of subsidiaries or of wholly unrelated companies. Often the merging of small companies with large companies effects operating economies and efficiency that would be impossible for these small companies operating alone.

EQUIPMENT ISSUES

Equipment or car trust bonds and certificates are a very valuable type of the secured obligation. Their origin can perhaps be traced in a measure to the closed mortgage and the "after-acquired property" clause. If railroads bought cars and equipment and themselves issued mortgages against the equipment, the equipment automatically might come under old mortgages containing the "after-acquired property" clause or might be made subject to other liens through the laws of certain states providing that various appurtenances used in operating a railroad shall be considered as a part of the real property of the road. The railroads might have to issue second mortgages on equipment if they paid for it by bonding the equipment themselves. Second or other junior mortgages generally are more expensive for the borrower than are first mortgages.

In equipment trust issues the title to the equipment is vested in a trustee. He makes a conditional sale or lease to the railroad. The railroad makes a substantial first payment and then pays so much of the principal debt every year, in addition to the interest, or rentals. At the end of the period the debt has been liquidated and the railroad owns the equipment. In case of default the trustee can take the equipment.

The Philadelphia plan of equipment trust issues is to rent the equipment. The law of Pennsylvania does not

recognize a conditional sale as a basis for credit. Thus the railroad has no vestige of title to the equipment until the obligation has been fully met. The "interest" return is in the form of rentals and is referred to as rentals in the Philadelphia plan because under the Philadelphia plan the investor does not own a bond. He owns a certificate of ownership which is non-taxable in the hands of Pennsylvania holders, while an equipment trust bond held by the same persons would be taxable in Pennsylvania. In the other plan of equipment trust issues, wherein the trustee sells the property conditionally, the railroad has title to the equipment.

Equipment issues are among the strongest of secured issues. For that reason they command a high price and are one of the most economical forms of railroad financing. The railroads are required to keep the equipment in repair and replace any equipment destroyed. Reference has been made chiefly to railroad issues because they are the largest users of this form of security. The field, however, is being extended to other corporations and probably equipment issues will be widely used by industrials as well as by railroads and utilities.

GUARANTEED BONDS

Guaranteed bonds are a type of secured obligations that have advantages and disadvantages. If the security is such that it requires a guaranty to reenforce it, an entirely new element has been introduced and the strength of the guaranty has important bearing on the strength of the security. Right here it might be said the word "guaranty" is perhaps the most misunderstood and abused word in the English language. There is nothing inherent or intrinsic in the word that gives value. The law of guaranties is quite specific. A guaranty may be worth a great deal or it may be absolutely worthless. If the guarantor or guarantors are strong, reliable companies and the guaranty is carefully drawn to

safeguard the investor, then it can be a very valuable security. An example of this may be found in bonds of the Chicago Union Station and the Kansas City Terminal Railway. Both are guaranteed by strong railroads and both issues have been put out to provide very necessary property for the use of the guarantors. It is wholly sound to believe that such guarantors can and will see that the interest and principal of the bonds are paid.

As to a banker guaranteeing bonds, there is no economic reason or good in such a practice. It is absolutely a fallacy. Every reputable bond house is extremely jealous that it never knowingly put out an issue that will default. The most conscientious and capable sometimes will underwrite an issue that will turn sour. It is humanly unavoidable to do otherwise throughout a long period of active bond business, no matter what the class of bonds handled. Such an investment house could practically guarantee a single issue, but suppose it continued to guarantee all its issues. What good would the guaranty be? It would pyramid liabilities to such an enormous extent that its guaranties might be worthless. The best guaranty for any bond is the fact that it has been set up by an experienced, competent, reputable bond house, which knows, as far as it is humanly possible to know, the value of the security behind the bond and the ability of the borrower to pay.

Assumed bonds are generally stronger than guaranteed bonds. It is merely a question as to who does the "assuming." If the United States Steel Corporation assumed an issue of some subsidiary, you would not look much farther than that, would you? But if payment is assumed by a company of weak credit position you would examine the primary security, if any, behind the issues, as well as the security offered in the general credit of the company that had assumed the liability of paying the bonds.

Second mortgages are too apparent in their title to need much amplification. They, too, may be strong or weak. It is again an individual question of relationships. But when

we get to classifying bonds with such terms as "general," "consolidated," "adjustment," or other generally descriptive phrases, we should be very careful to know just what we mean and what the other fellow will think we mean. A second mortgage may be so strongly secured that it deserves a high price. Yet its name is against it and so it is sometimes dressed up in other names. A bond's security and other characteristics should be exposed by its title or classification, not buried under it.

DEBENTURES—UNSECURED BONDS

Bonds secured by the general credit of the corporation may be said to include debentures, assumed, joint, guaranteed, income, and participating bonds. However, the debenture is the only one that may fall entirely within this class, if we except receiver's certificates and bank borrowings. Assumed, joint, guaranteed, income and participating bonds may or may not be partly secured by a mortgage on property as well as by the general credit of a related company. Debentures have different degrees of security, according to the strength of the issuing company and according to the covenants of the trust indenture which is behind and accessory to the debenture issue.

If the company is strong and if it contracts to protect a debenture issue against the incurring of future liabilities, then the debenture is among the very desirable and safe securities. A company with strong assets and good earning record may give a very sufficient pledge in its general credit for the payment of debentures. As an example of this, the 20-year debentures issued about a year ago by the American Telephone & Telegraph Company and a shorter term issue by one of the strong, successful, older oil companies are referred to. The first of these companies, a public utility, is one of the most stable businesses in one of the stable lines of business. It can look forward to earnings within a certain ratio for many years. The other company,

however, is in one of the more hazardous forms of industrial enterprise, that of the oil industry. Yet its earning record was so good, its management so excellent and its holdings so large that its debentures commanded a high price. Only strong companies should issue debentures, because only strong companies possess the credit position that will properly secure the debentures. As a whole, utilities may issue debentures for longer terms than industries. It is practicable to forecast a steadier and more certain earning power for a long time in the case of utilities than in the case of many industries. The market for industrial products fluctuates more than does the demand for utility services.

Participating bonds are largely a marketing device. They offer, in addition to an interest return, a possibility of sharing in the profits of the business. This speculative value may be added to make up for lack of security or it may be added in a desire to enable the bondholders to participate in the company's prosperity should earnings be large.

The interest on income bonds is payable from income as earned. If there is no income, interest may not be paid. While income bonds have their justifiable place in the general scheme of things, they seem to be getting a long way from the real purpose and function of a bond, which is to give assured, periodic yield, not conditional yield.

THE BONDS CALLED "LEGALS"

Perhaps the most definite and rigid of any authoritative effort to classify bonds is that contained in the statutory provisions of various states in defining the securities that are legal investments for savings banks and trust funds. Bonds that come within these provisions are called "legals." These provisions in New York and the New England states are quite similar and have provided patterns for like laws in a number of states. If, however, you will read the New York law carefully you will obtain a pretty general idea as to what constitutes bonds in the class of "legals." If then

you will apply that knowledge to ascertaining whether or not well-known, first-class issues come within these legal requirements, you will make an enlightening discovery as to the futility of attempting to make a rigid classification for bonds.

To be sure, these provisions generally permit only good bonds to qualify under the classification of "legals," but they also sometimes exclude bonds of the highest class, bonds, that from the standpoint of security, safety, yield, and marketability are among the best. This is because the bonds do not conform to some minor technicality or rigid rule of the statutory provisions. At the same time these legal classifications may admit bonds of only fair rating. This is not the fault of the law, but is simply an unavoidable and natural result. Laws are very largely products of compromise between different ideas and facts. Also, it is difficult to make any rule that will apply to every situation. Naturally the law is often out of date. Changes make its provisions only partly applicable. All this is true as to the laws defining "legals." If the best brains of Congress and all the state legislatures should work a year or more on a law to admit only the most dependable securities and reject all the less dependable the effort would fail to accomplish any such results. Securities are so varied and so dependent on different relationships that it could not be done. Do not think that because a bond is not a "legal" that it is inferior. It may be as good as any "legal" and superior to a number that conform to the technicalities that rank them as "legals."

REDEMPTION AND PAYMENT

In the manner of payment and redemption of bonds we have another broad classification. Among these are serial, sinking-fund, callable, and convertible bonds.

Equipment bonds are one of the outstanding types of serial bond issues. At the time the equipment is mortgaged, as security for the bonds, it has a certain value. As

the equipment is used, this value depreciates and the security is thereby lessened. By having a prescribed number of the bonds come due every year the security still remains sufficient to secure the remaining bonds. This is a good example of an excellent and proper application of serial maturities. To many it may seem, at first glance, that the principle of serial maturities should be applied to all bond issues. Let us illustrate the utter fallacy of such an attitude. Of the several points expressed in this chapter, the one which deserves to be most impressed is this:

One should not endeavor to fit any investment principle to any bond issue without first knowing that the principle actually applies to that particular issue.

Serial issues are an excellent example of the fallacy of trying to apply a principle that is sound in one type of bond to another type of bond where it may be absolutely destructive. Some years ago the serial maturity principle was applied to certain timber bond issues. In theory it was good. No doubt in some issues it worked out very well. But in the issues just referred to it was a destructive and unsound provision. Conditions developed so that it was unprofitable to cut the companies' timber. If they had not contracted to redeem a certain number of their bonds every year these companies could have allowed their timber to stand until more prosperous times. They could have sacrificed enough timber to pay the interest, without much damage. Instead they had to slaughter their valuable timber and sell it for anything they could get, solely because they had serial maturities to meet every year. The investors gained nothing by this slaughter and sacrifice, but the companies' and the nation's future timber supply suffered heavily for it.

The best example of serial bonds, however, is in municipal rather than in corporate issues. Municipal bonds that are paid from general taxes depend on a certain tax levy. That levy is a definite amount every year. If it is made sufficient to pay the interest and to redeem a small portion of the

bonds each year, then at the maturity of the issue all the bonds will have been paid. It is, generally speaking, the soundest method of redeeming municipal issues because it does away with possible waste, loss, and mishandling of sinking funds accumulated from tax levies.

SINKING FUNDS

Proper provisions for amortizing a bonded debt is a very important consideration. Serial repayment, we have seen, is not always wise or practicable. It is customary more frequently to effect amortization through a sinking fund. A sinking fund is money accumulated periodically—usually annually—from income, for the redemption of the bonds.

Sinking funds may be created and operated in several different ways. In oil, mining, and other extractive industries, where the removal of oil, minerals, or other raw materials naturally reduces the value of the property, a certain percentage of the money received from sales is sometimes set aside as a sinking fund. Other sinking-fund provisions provide that a certain sum be invested in the bonds every year at a call price or at any price. It is readily apparent that such sinking-fund requirements may be little different in effect than serial bonds, since they require a certain number of the bonds to be redeemed each year. Another method is to base the sinking fund on the gross or net earnings, setting aside each year a certain percentage for the sinking fund.

Recently, an objection was voiced to the practice of basing sinking funds on net income, because, it was asserted, there were different ways of figuring net income and there might be differences of opinion as to what constituted a corporation's net income in any year. There should be no difficulty in that. The trust indenture, which provides for the sinking fund, how it shall be created and how operated, can define net income so that there will be little chance of ambiguity or difference of opinion. In fact, it is generally

conceded that the basing of a sinking fund on income and making a maximum and a minimum for prosperous and lean years, respectively, is a very sound method. A corporation might easily provide heavy, maximum, sinking-fund payments yearly for a number of years, and then in a period of depression be greatly handicapped by being compelled to meet the same sinking-fund payments.

From the investor's point of view a sinking fund is supposed to add to the security of his bonds. If, however, sinking-fund requirements are so rigid and exacting that they impair the successful operation of a corporation, take no account of bad years and unavoidable decrease in earnings, then they may tend to decrease the value of the security behind the bonds.

The attitude of mind of the investing public often makes sinking funds desirable, largely as a selling device. The application of this principle has been quite apparent in the utility security market. Whether it is a proper or a wrong notion depends on the corporation it is applied to. A sinking fund is a fixed charge against the income of a property. It should not be made a super-fixed charge, one that would handicap the enterprise and thus tend to make the security behind the bond less valuable.

CALLABLE PROVISIONS

The indenture under which most bonds are issued contains provisions that permit the issuing corporation to pay the bonds before maturity. This provision puts bonds in the callable class. Usually the corporation has to pay a premium on this privilege and the call price is fixed at some figure above par or is on a sliding premium that diminishes as the maturity date approaches. A number of reasons make it desirable to provide the call privilege. The indenture may provide that a certain amount or percentage of the bonds be purchased yearly for the sinking fund, or retired, and this callable privilege enables the company to

obtain such bonds without paying a possibly exacting price. New financing may make it desirable to retire an entire issue. If the bonds were not callable it might be impracticable or impossible to buy all the issue. It may be cheaper for a company to pay the premium in calling bonds before maturity and then to put out a new, larger issue of first-mortgage bonds rather than to issue second-mortgage bonds. For example, a business may need new capital during a time of high interest rates. It perhaps is required to offer 6% or 6½% or even a higher rate of interest on the bonds it issues at that time. Later, when business conditions have changed and credit supply is abundant and interest rates accordingly lower, it effects a saving if the company can call its high-interest rate bonds and issue in their place bonds paying a lower rate.

Only a few years ago this call privilege was quite a factor in the market for new issues. That was during the period of frozen credits when a number of companies had been caught using short-time credit for long-time uses. The thawing out process demanded that these debts be funded into long-time obligations. As it was a time of credit famine and very high interest rates, canny investors were perfectly willing to help in the thawing, but they did not wish to invest their money in bonds that might be called in a year or so, when credit was cheaper. It was quite frequent to hear investors demand that bonds be non-callable. Whether the call privilege is exercised or not it is quite a useful thing to have in the indenture.

CONVERTIBLE BONDS

Convertible bonds are bonds that can be converted into stock within a specified period. The conversion privilege adds a speculative feature to the bond that may appeal to many. Usually the conversion privilege permits the converting of a bond into preferred or common stock. Almost always it is a conversion from more security to less security,

that is, conversion of bonds into stocks, or conversion of preferred stocks into common stocks.

The purpose in adding the conversion privilege may be the very worthy desire of giving the bondholders a larger reward when the company gets into its full stride. Or again it may be a skilful way of selling stock since the bonds will be converted into stock when the stock is worth more than at the time the bonds were sold. If the stock makes an unusually large advance the conversion privilege might be nullified by the bonds being called. Or, again, it may be the old and never-ending effort to set up a security that has both the safety attractiveness of a bond and the speculative appeal of stock. In the making of securities that is an effort that never seems to wear out. Somebody is continually trying to evolve some new kind of security that will be both a bond and a stock. That object has never yet been accomplished, nor will it ever be.

Several so-called types of bonds that will be found in many lengthy classifications have purposely been omitted in this discussion. Those which have been, however, are self-explanatory if the foregoing essentials are kept in mind. The history of railroad financing in the United States is a magnificent study. It has its dark chapters, but the greater part of it is constructive and wholesome. There is scarcely a bond type or combination of bond types which one will not find in use somewhere in railroad financing. It is the most comprehensive of all corporate financing. The railroads have probably finished one great period of expansion, that of external expansion. Their period of great internal expansion is now at hand, as has been witnessed in the last few years by the increased efficiency in handling all traffic. For the man who would obtain at least a partial mastery and a greater efficiency in the bond business a study of railroad finance is recommended, for it is a field in which some remarkable developments may be seen in the not-distant future, because the efficient growth of transportation is a necessity to greater national development.

ELECTRIC RAILWAYS A WONDERFUL ACHIEVEMENT

Akin to the railroads are the electric railways, a development that has been little less than marvelous, yet which is only now emerging from its period of unjustifiable depression. One may thoughtlessly take it for granted that it is nothing to provide transportation for many miles for only a nickel or 6 or 7 cents, but in reality it is one of the greatest economic achievements in the history of the world. There is nothing like it anywhere—this ability of the electric railways to carry millions of people such great distances at the cost of only a few cents. Yet, there is a great deal of animosity directed toward this type of carrier. Why? Because nearly every one compares the electric car with the automobile and we much prefer the automobile. And since the public makes this unfair comparison and generates a dislike for this efficient carrier it treats it unjustly. The politicians take a cue from the public's attitude and often have used the electric railways as a political football.

The public has an altogether wrong attitude towards electric railways. Whatever may have been the sins of the promotion period of electric lines 25 or 30 years ago, that period is gone forever. It is absolutely certain that the electric railways of this country have laid a foundation for efficiency that has not often been surpassed or even equaled by many lines of industry. It is inevitable that a new and better time is dawning for electric railways. They deserve it. They fill a need that is growing every day. Automobiles are increasing, it is true, but every year electric railways are carrying more and more people. Traffic need are growing enormously. Some day, and soon, the people are going to see the plain fact now invisible to them, that electric railways are a growing necessity and must be fairly supported and encouraged by the public. There can be little doubt that electric railways are a great social benefit, especially in relieving congested areas and eliminating slum districts.

INDUSTRIAL SECURITIES

As to industrials, the man who is not familiar with industrial financing and who will not work at it, if he goes into it, had better stay out. There is no corporate enterprise that offers better investment opportunity than a good industrial. There is none that is more indifferent than a poor industrial. It is entirely a matter of investment analysis in every case. There are so many kinds of industrials and their conditions are so different and varying that a classification is of little value, unless at greater length than can be attempted in a short discussion such as this. However, this point can be set aside here, for it will be taken up again in detail in a chapter devoted to that subject.

Real estate mortgage bonds are also a long study, and it is problematical whether any useful classification could be set down here. The setting up of the bond rests primarily on the appraisal. That is the most important element to be considered. Speculative features and probable increase in the value of the property should have only minor consideration. Rentals or income returns, however, are most important considerations, after the fair appraisal. A majority report of the real estate committee of the Investment Bankers Association of America, in October, 1923, recommended that the maximum loan on city property be 60% of a fair appraisal. To those who are interested in this class of bonds this report would be of benefit.

In concluding, let it be repeated that it is not of great importance what class bonds belong to. The main thing that counts is that they be set up so that their ability to pay has been reenforced and safeguarded at every point.

BOND BUSINESS NOT A "GET-RICH-QUICK" ENTERPRISE

Some few years ago a capable department head in the Chicago office of one of the great underwriting houses left the firm to organize a small bond house of his own. When

he told the head of the house that employed him that he was going into business that fine old bond man said:

I'm glad to know of your very laudable ambition. Will you let an old man say just a word of advice? I believe you will succeed. Your selling and organizing ability indicate that. But I wish to caution you as to how to succeed. You can do it in two ways, so far as money success is concerned. You can maintain a kind of counterfeit respectability on the outer fringe of legitimate business and by handling securities that are not first class and selling them as first class you can make a great deal of money in a short time. Or you can make a fair income and build up your business and income slowly by handling your business only on the highest plane, where there is no shadow of a doubt about any representation you make. You won't get rich quickly by doing business that way, but you will gain a business standing that is worth a great deal more than money and that will establish a business that will endure. That is the only kind of bond business worth having.

The twilight zone in the investment business is steadily and continually narrowing. Even among the very few houses that may be too keen on very long profits and a trifle unmindful of the soundness and security of the issues they sell, there is none that knowingly would put out an issue that it believed would not pay out. Their own interests would prevent them from doing it, no matter how greedy or unscrupulous they might be. Always in their most speculative transactions they figure that there is a chance that they will pay out. It is the refusal to take chances, and to determine, as far as it is humanly possible to determine, the ability of an issue to pay that makes the real bond house. Success and honor in the business all rest on judging ability or inability to pay.

SELF-TEST QUESTIONS

1. Why is corporate finance so vital to the welfare and progress of the nation?
2. Define a corporation bond.
3. What is the essential difference between a corporation bond and a civil loan bond?

4. What are the general characteristics that classify a bond?
5. Why is it sometimes difficult to describe a bond's classification in a short title?
6. What does the word "debt" connote in your mind? Is debt a handicap? A misfortune? An expedient? Can it have advantages for the debtor? What is meant by temporary debt? Permanent debt?
7. What are the two chief forms of property holdings?
8. What are the four qualities of security?
9. Discuss the function of the guaranty in its proper and improper applications.
10. What is meant by a "legal" bond?
11. Discuss serial maturities; sinking funds.
12. Why are electrical railways a great achievement of science and business?

V

THE CORPORATION MORTGAGE

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Definition of mortgage. Provisions of mortgage. Safeguards for investor. Types of mortgage liens. A collateral trust indenture. The debenture agreement. Powers, duties, and liabilities of a trustee.

THE modern corporation mortgage—more properly called a trust indenture—with all its flexibilities is best adapted for the use of the public utility corporations, and in this chapter the word “mortgage” unless the context indicates otherwise, refers to this type of trust indenture. There will be, however, a discussion of fundamentals which are a proper part of any corporate mortgage.

DEFINITION OF MORTGAGE

Without attempting to make a technical definition, a mortgage is the instrument by which the title to real estate, which is to be used as security for a loan, is conditionally transferred to the lender. If the conditions of the loan are fully met, title to the property reverts to the borrower. If the conditions of the loan are not met, the lender is able, by following certain legal procedure, to have the property sold. The proceeds of such a sale, after the payment of certain expenses, are applicable to the full satisfaction of the loan; the balance, if any, being paid to the borrower.

Under the old Common Law, the borrower made an unconditional transfer of his real estate to the lender, subject, however, to certain rights of redemption. Under this procedure if the borrower failed to pay his loan and failed to

avail himself of his right of redemption, it was not necessary for the lender to take any court proceedings in order to become vested with absolute title.

If a transaction involving a mortgage is made between two persons (and in law a corporation is a "person"), the transaction can be made a very simple one regardless of the amount of money involved, but as the size of loans increases it usually becomes necessary to employ a method of procedure which makes it possible for many persons to participate in the loan.

As it would be obviously impossible for a borrowing corporation to make an agreement directly with hundreds of persons, a trustee comes into the picture, who acts in a trust capacity as the representative or spokesman of the lenders. The mortgage, which now becomes a trust indenture, is a transfer of property to a trustee made by and in accordance with the terms of an agreement between the borrowing corporation and the trustee. The corporation's promises-to-pay issued under the terms of the trust indenture are bonds and the lenders are bondholders.

PROVISIONS OF A MORTGAGE

The modern mortgage is an agreement between a corporation and a trustee by which the corporation transfers its property, real, personal, and mixed, now owned and hereafter acquired, to the trustee to be held in trust in accordance with the many and oftentimes complicated provisions of the mortgage for the benefit of the holders of the bonds issued under the terms of the mortgage. Upon the payment of the principal and interest of the debt, ownership of the property automatically reverts to the corporation. In case of failure to comply with the covenants and conditions of the bond and the mortgage the instrument sets forth the rights of the trustee and prescribes methods for the enforcement of the security.

The mortgage of an industrial corporation specifically

exempts current assets from its lien, thus making raw material, stock in process, finished products, bills and accounts receivable, and cash available a basis for the credits which such a corporation usually finds it necessary to obtain from the commercial banker.

The bonds issued under a mortgage bear a certificate in substantially the following form:

This bond is one of the bonds described in the within mentioned indenture.

By

Trustee

Secretary

Mortgages contain a provision that no bonds shall be recognized as participating in the security which fail to bear the executed certificate of the trustee; and there is also a provision that the execution of the certificate by the trustee shall be conclusive evidence that the bond has been issued under the mortgage and that the holder is entitled to its benefits.

The mortgage itself is duly authorized by the stockholders and the directors of the corporation and in many states it has to be approved by a public utility commission. The mortgage is executed oftentimes in multiple by the corporation and the trustee, the internal revenue stamps required by the federal law are affixed to the original, and a signed duplicate is filed for record in all of the counties in which the corporation owns real estate.

The principal and interest of the bonds are payable at the office of the trustee, and oftentimes the bondholder has the option of collecting the principal, and in any event interest, at other places. The right of the bondholder to collect interest is evidenced by coupons which are surrendered by the bondholder upon the payment of the interest as it matures.

Fully registered bonds without coupons are usually issued in large denominations (multiples of \$1,000), with the obligation on the part of the corporation to mail checks for

semiannual interest to the registered holder of such bonds. The purchaser of a fully registered bond must receive a properly executed power of attorney from the registered holder. Upon the presentation to the trustee of the bond and the power of attorney the old bond is canceled and a new bond is issued to the purchaser. Many mortgages permit the exchange of coupon bonds for fully registered bonds, and vice versa.

Both the corporation and the bondholders are bound by the terms of the mortgage and the principle is usually recognized that a majority of the bondholders have the final right to direct the trustee regarding the enforcement of the security in case of default, and barring fraud the minority bondholder is bound by the actions of the majority. The rights of the bondholder for the enforcement of his security lie wholly with the trustee, and the individual bondholder has no direct recourse against the corporation except upon the "promise-to-pay" of his bond as entirely separate and distinct from the security created by the mortgage.

It is becoming customary for mortgages to contain a provision that the holders of say 85% of the bonds may consent, with the approval of the trustee, to modifications in the mortgage, provided that without practically unanimous consent no changes or modifications shall be made in the date of the maturity of the bonds, in the rate of interest which they bear, or in the nature of the security itself.

Such provisions would permit changes and modifications in (a) sinking fund, (b) provisions affecting the redemption of bonds prior to maturity, (c) conversion provisions which might be contained in the bond, and (d) other commercial provisions.

The value of the clause permitting such modifications is still to be determined, as it is generally believed that, except in cases of trouble, it would be a practical impossibility to obtain the consent to anything by the holders of 85% of a widely scattered bond issue—not that the bondholders would necessarily be opposed to the proposed changes, but

they would be too indifferent to declare themselves. It seems to be a fact that bondholders only become actively interested when they are alarmed by a default in the payment of interest, or when for other reasons there is an unusual decline in the market value of their bonds.

SAFEGUARDS FOR THE INVESTOR

Until comparatively recently it was customary to limit the bonds authorized by a mortgage to an amount which it was estimated would provide for the company's financial needs over a period of from 10 to 20 years, and under conditions formerly existing it was desirable, from the standpoint of the bondholder, that there should be a fixed limit placed upon the amount of bonds which could be issued under his mortgage. When this limit was reached, the corporation was obliged to retire the original bond issue or else make a new mortgage which would have a lien junior to that of the original mortgage. The position of the first-mortgage bondholders thus became much stronger, and many instances can be shown of old first-mortgage bond issues which cover properties having present values many times in excess of the total amount of outstanding first-mortgage bonds.

As time has gone on the public utility corporations have in many instances been placed under supervision of the state utility commission having authority over service, rates, the issue of securities, and so forth. The desirability of the public utility as a publicly regulated monopoly, with the right to operate unlimited in time, is becoming more and more generally recognized, as is not only the legal right but the commercial necessity that such corporations be allowed to earn a reasonable return upon the money invested in their properties.

These developments have removed many of the old hazards which formerly surrounded the public utility business, and coincidentally there has developed the belief that

the mortgage under which bonds are issued may safely permit bonds to be issued without a limit upon the total amount which may be at any time outstanding, provided, however, the conditions affecting the issue of bonds, and to some extent the operations of the property, are properly safeguarded.

The modern open-end mortgage contains all of the flexibilities that the public utility owner, the attorneys, and the bankers have been able to devise within the limits of safety. The issue of bonds in "series" is permitted. Bonds of "Series A" may be authorized today as 20-year 6s, with interest and principal payable only in Chicago; they may be redeemable at the option of the company at 105 and interest upon any semiannual interest payment date. Provision may be made for payment by the company of any normal federal income tax of not to exceed 2%, deductible at the source. The company may also agree to refund to bondholder residents of Pennsylvania the so-called four mill tax required to be paid by residents of that state. Sometimes provisions are made for the payment or refunding of similar taxes in other states. "Series A" bonds may contain provisions for a sinking fund and may at certain times and under certain conditions permit the conversion of the bonds into the common stock of the company. "Series B" bonds, to be authorized at some time in the future by the board of directors of the company, will have exactly the same security as "Series A" bonds, but there may be a change in, or in some cases the omission of, some of the foregoing provisions.

With such flexibilities as the above, a corporation is able to put out a bond which, as regards rate of interest, maturity, and so forth, is best adapted to market conditions at the time, and these flexible open-end mortgages are intended to be instruments for continuous use, in that a series of bonds may be created for the purpose of retiring bonds of a prior series, thus making general refinancing unnecessary merely because a series of bonds has become due.

The desire to save the expense of refinancing, which is always heavy, is really the impelling motives for the creation of the self-refunding open-end mortgage. These mortgages, when properly safeguarded, are an entirely proper method of financing, but they are likely to prove disappointing to the owner of public utilities who believes that by the creation of such a mortgage he has indefinitely postponed the necessity for refinancing. If the developments of the public utility business during the next 20 years are in any way comparable to those of the last 20 years, conditions now unforeseen will arise as time goes on which will make refinancing necessary at intervals of from 10 to 20 years.

The provisions which are vital to the protection of the investor in a mortgage with a large authorized issue, and especially in an open-end mortgage, are those which permit and at the same time restrict the issue of additional bonds. The amount of bonds which may be issued is usually restricted to a certain percentage of the amount expended by the corporation for additional property which is subjected to the lien of the mortgage, provided the earnings of the company available for bond interest for the preceding year have borne a certain fixed relationship to the annual interest charges upon the company's outstanding bonds, plus those for the certification of which application is then being made. It is considered good practice to limit the issue of additional bonds to 75% of actual expenditures for additions and extensions when net earnings have been at least twice the amount required for bond interest. Taking into consideration that bonds are usually sold at a discount by the corporation, the practical effect of the 75% clause is to require the corporation to raise somewhere around one-third of the money for capital expenditures, in some other way than by the issue and sale of bonds. This principle, as a desirable end to attain, is quite generally accepted by public utility operators.

There should also be provisions so that by a sinking fund or by the establishment of a depreciation fund, or by both,

the bondholder is protected against a diminution or dilution of his security resulting from wear and tear, obsolescence, or other causes which are the inevitable result of the use of the property and of passage of time.

There are certain standard provisions which are customary in the modern mortgage. The corporation covenants to comply with all the conditions of the bond and the mortgage, to maintain the security, to maintain and operate its property, to insure it, to furnish monthly statements of earnings to the bankers, to have at least annual audits made and to permit the representatives of the trustee to examine the property and books at any time.

The mortgage of the industrial corporation usually contains provisions requiring the maintenance of a certain relation between current assets and current liabilities in order to safeguard the holder of the mortgage bonds from finding himself in the position of being obliged to enforce his security upon the plants of the corporation whose current assets have been depleted by the general creditors. While there is a wide opportunity for difference of opinion, some people hold the view that neither mortgage bonds nor debentures are properly a part of the permanent financial structure of an industrial corporation and that such forms of indebtedness should only be issued with comparatively short maturities and should only be availed of to carry the corporation over a period of business depression. No one will question, however, the propriety of the carrying of a relatively small amount of funded debt by the very large and long established industrial corporations whose preferred and common stocks are entitled to be classed as investment securities.

The so-called release provisions of a mortgage permit the sale, free from the lien of the mortgage, of property which is no longer useful or necessary for the operation of the property, or which for some other reason it is desirable shall be sold. Methods are prescribed for establishing the value of the property to be released and provision is made that the proceeds of the released property shall be deposited

with the trustee to be used for the retirement of bonds or for additions and extensions to the property on account of which no bonds shall be issued.

TYPES OF MORTGAGE LIENS

A "first mortgage" is what its name implies. A "second mortgage" is equally simple of explanation. In some cases a corporation is able to create a mortgage which attaches as a first lien to certain property and is a mortgage on other property, subject to the prior lien of an older first mortgage. Under other circumstances a corporation required to refinance by making a new mortgage may find itself in such a position that the lien of the new mortgage will be a second in respect of certain parts of the property, a third in respect of certain other parts of the property, and even a fourth in respect of the remainder. There is almost no limit to the combination of liens which may exist upon the creation of a mortgage.

The first and refunding mortgage attaches as a first lien to at least a substantial part of the property of the corporation, with a provision for the issue of bonds under the mortgage for the retiring or refunding on a dollar-for-dollar basis of all underlying bonds.

From the standpoint of the corporation having bonds for sale it usually seeks to bring about a condition so that the new mortgage will attach a first lien to some important property. Failing in this, the term "general mortgage" oftentimes has to be used. As a matter of fact, there are no hard-and-fast rules as regards the names of mortgages except that the term "first mortgage" should not be used unless existing facts justify. A so-called "general mortgage" might, with equal propriety, be called a refunding mortgage, or both names might be used.

Modern financing has brought into use a trust indenture, the sole security for which is the pledge with the trustee of certain stocks and bonds. If real estate forms no part of

the security the use of the word mortgage would be entirely improper in connection with such an indenture. Sometimes, however, the mortgage and collateral trust features are combined and consequently some such name as general mortgage and collateral trust bond is used.

The debenture, as known in this country, is an unsecured promise, to pay, issued under the provisions of a trust indenture which does not create a lien or mortgage.

A COLLATERAL TRUST INDENTURE

There is a form of collateral trust indenture which affords security almost equal to that of the mortgage, but this is the case only where the securities pledged represent the entire capital securities, stocks and bonds, of subsidiary companies which have no outside indebtedness. In such cases the pledge of stocks and bonds is practically equivalent to a mortgage upon physical property.

The other extreme for the security of a collateral trust indenture is the pledge of common stock of a corporation having bonds and perhaps preferred stock, to say nothing of floating debt, in the hands of the public. In case of trouble the bondholder ceases to be a bondholder and by realizing on his security becomes a stockholder of a subsidiary corporation. Collateral trust indentures are drawn with all kinds of variations between the two extremes that have been pointed out.

The vital point for consideration in connection with the so-called collateral trust bond is the position of the collateral in relation to securities of superior value or lien which are or which may be in the future outstanding in the hands of the public.

The collateral trust is the most complicated of all forms of agreements for the issue of bonds. Provisions are made so that if the corporation complies with all of the covenants of the trust indenture it will be allowed to administer its affairs, and proceed in the orderly conduct of its business

without undue restriction. Some collateral trust indentures will not permit a subsidiary corporation to issue securities of any kind to the public or to create any indebtedness to the public; others will permit the sale of subsidiary company bonds to the public or may forbid that and permit the issue of preferred stock to the public. Sometimes there is a provision restricting the amount of floating debt in relation to current assets that a subsidiary company may create. Provisions are sometimes made which will permit the consolidation of two subsidiary companies. Provisions are sometimes made which will permit the surrender for cancellation of all of the securities of the corporation in case the physical property of that corporation is acquired and subject to the lien of the trust indenture which then more properly becomes a mortgage. Provisions are made that, in case of an increase being made in the stock of a subsidiary corporation, proportionate amounts shall be acquired and subjected to the lien of the trust indenture. In fact, ramifications of the collateral trust indenture are capable of such extended treatment peculiar to each particular situation that no attempt will be made to deal with this subject extensively.

The important point is to determine whether the collateral trust indenture is in commercial effect a mortgage on physical property, or whether it is secured only upon equities, with all the possibilities of fluctuating values inherent to such a security.

THE DEBENTURE AGREEMENT

The debenture agreement really limits the rights of the debenture holders so that they must act as a unit as against the rights of the general creditors, each of whom may pursue whatever right of action he wishes.

The debenture agreement usually contains, however, the important provision that in case a mortgage be created upon the property, the debentures shall be given participation in

the lien. Sometimes there is a prohibition against the creation of a mortgage, in which case the debentures have to be retired or paid before a mortgage can be created. The debenture is oftentimes given the right of conversion into stock.

POWERS, DUTIES, AND LIABILITIES OF A TRUSTEE

Under the modern mortgage the trustee is given wide powers, though he is seldom expected and almost never required to take any particular action upon his own initiative. The trustee is, from this standpoint, the servant of the bondholder.

The principal duty of the trustee is in connection with the certification of bonds. The showings which have to be made in this connection are fully set forth in the mortgage and it is the duty of the trustee to see that all of the requirements have been met.

In connection with the release of any property from the lien of the mortgage, a somewhat similar situation arises. Certain showings have to be made and it is the duty of the trustee not to execute a release until these showings have been completed.

A conscientious trustee will keep watch of the routine covenants of the mortgage and, if the mortgage requires it, ask that annual audits be submitted, that proper insurance be carried, and so forth.

Upon the failure on the part of the corporation to make a money payment required by the mortgage, and upon the request of a comparatively small percentage of the bondholders and upon being properly indemnified, the trustee is required to start proceedings against the corporation.

The trustee is given immunity and is freed from claims for damages arising out of any action which he takes other than in wilful violation of the provisions of the mortgage.

The trustee may resign or be removed by a majority of the bondholders, in either of which events the successor

trustee may be appointed by a majority of the bondholders. Sometimes an interim appointment may be made by the corporation.

The trustee keeps careful and complete records, transfers registered bonds, is the custodian of any pledged securities, and is generally charged with a very considerable degree of responsibility.

Upon the payment of all sums due under the mortgage it is the duty of the trustee to execute a release deed or "satisfaction" which is placed on record in all of the counties where the mortgage itself is of record, thus clearing the title of the encumbrance created by the mortgage.

SELF-TEST QUESTIONS

DEFINITION OF MORTGAGE

1. What is a mortgage? What is conditional title? How does it differ from full title?
2. How does a mortgage bond differ from a mortgage? A deed of trust? Why does a corporation issue bonds on a mortgage instead of giving each investor a separate mortgage? Why does it not issue one mortgage and sell it to a bank or investor?
3. When mortgage bonds are issued, why is a trustee necessary?
4. What is a chattel mortgage? Does a collateral trust bond issue possess any of the characteristics of a mortgage bond issue? If so, what are they?

PROVISIONS OF MORTGAGE

1. "The corporate mortgage is in the nature of a three-cornered contract." Explain. Who are the three parties to the contract?
2. Why should a corporate mortgage be complex?
3. What happens if a corporation defaults in payment of principal or interest on mortgage bonds? If it violates important clauses in the trust deed?
4. Why are fixed assets more often mortgaged than current assets?
5. How could one tell whether or not his bond participated in the security of a given mortgage?

6. What procedure is necessary before a mortgage bond issue is ready for issue?

7. What are bearer bonds? Registered bonds? Registered coupon bonds? Why do deeds of trust provide for interchangeable issue of their three types of bonds? Why do coupon bonds often sell at higher prices on the market than registered bonds?

8. What is a "baby bond"? Why is it issued? Is it worth the cost? How?

9. How may a bondholder obtain recourse against the issuing corporation?

10. How may a corporation amend a mortgage? Is this of practical importance to the corporation? The bondholders?

SAFEGUARDS FOR THE INVESTOR

1. Why does the investor need to be safeguarded by special clauses in the deed of trust?

2. What is a closed mortgage? An open-end mortgage? A limited open-end mortgage? What are the advantages and disadvantages of each from the investor's view-point?

3. What limits are usually placed upon the issue of additional bonds under an open-end mortgage? Show how they protect the investor. Suggest other possible limitations.

4. What is "the after-acquired property" clause in a corporate mortgage? Why is it advantageous for the investor to have the clause included in the trust deed? Suggest ways of circumventing this clause and then suggest clauses to be placed in the trust deed designed to prevent such evasions.

5. Give as many other types of "safeguarding clauses" as you can and explain how they safeguard the investor.

6. What is the "release provision" in the mortgage? What is its purpose?

7. "Industrial corporations should amortize funded debt as speedily as possible." Discuss.

TYPES OF MORTGAGE LIENS

1. Define a first mortgage, second mortgage, senior mortgage, junior mortgage.

2. Define a general mortgage, refunding mortgage, blanket mortgage, joint mortgage, consolidating mortgage, guaranteed mortgage, assumed mortgage.

3. Why is it improper to call a collateral trust bond a mortgage bond?

4. Define a debenture bond and distinguish it from a mortgage bond; from a note given by the corporation to a commercial bank.

COLLATERAL TRUST INDENTURE

1. When is a collateral trust bond the investment equivalent of a first-mortgage bond?

2. Would a collateral trust bond secured by pledge of the common stock of the issuing corporation be a safe investment? Any safer than the corporation's debentures?

3. The Dayton Corporation pledged \$10,000,000 of Liberty bonds and first-grade rail bonds to secure \$5,000,000 of its collateral trust bonds. What is the security for the collateral trust bonds?

4. Assume that the company in question 3 pledged \$20,000,000 (par value) of stocks in subsidiary companies. Would you change your answer to question 3 under these assumptions?

5. Is the market value of collateral pledged to secure a collateral trust bond a fair test of its collateral value?

6. If holders of collateral trust bonds have to sell the collateral to pay the debt and the collateral cannot be sold for enough money to cover the debt, have they any recourse against the corporation? If so how does your answer affect your analysis of collateral trust bonds as investments?

7. Suggest proper "safeguarding clauses" in a deed of trust securing an issue of collateral trust bonds.

THE DEBENTURE AGREEMENT

1. What particular clauses are usually included in the debenture agreement to safeguard investors?

2. Why are debentures often made convertible into stock?

3. Have holders of debentures any advantages or disadvantages as compared with holders of bank loans?

POWERS, DUTIES, AND LIABILITIES OF A TRUSTEE

1. Describe the duties of a trustee under a corporate indenture.

2. How important is the trustee from the investor's view-point? Is he as important as the investment banker who sponsors the issue?

3. Why does the issuing corporation not act as its own trustee?

4. Why is a trust company usually employed as trustee?

VI

THE PRACTICAL APPLICATION OF SOUND INVESTING

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Safety of principal the basic fundamental. Interest rates. Standard of income yields. Effect of law of supply and demand on interest yields. Accrued interest. Computing bond interest. Marketability of bonds. Trading facilities in the bond market. Listing and marketability.

IN investing money, the average bond buyer is confronted with three major problems to which all other problems are secondary. These primary considerations are:

1. His principal must be safe, or, in other words, when he receives, in return for his money, a promise that the money is to be returned to him on a specified date, he must be assured that the promise will be kept, and that he will receive interest on his money at a fixed rate, and at definitely specified times.

2. In selecting his investment he is presumably satisfied with the rate of interest which he is to receive on his money, otherwise he would not make the loan. Nevertheless, the interest rate is a distinct problem for the average investor, for he usually eliminates from consideration many of the choicest bonds that he would like to buy, and which afford full assurance as to the safety of the principal and the regularity of the interest payments, because the income return from such bonds does not satisfy his ideas of what his money should earn for him. He must, therefore, find bonds which combine a satisfactory degree of safety with an acceptable rate of income.

3. In the event the investor anticipates that he may need his money prior to the date of maturity of his bond, he must buy a security which is marketable so that a buyer can be found with a minimum of effort and expense and at a price which is in line with the replacement value of the same bond at the time he may want to sell it.

SAFETY OF PRINCIPAL THE BASIC FUNDAMENTAL

Of these three primary investment factors, the "safety of principal" is naturally of the greatest importance. It involves the greatest amount of money, and incidentally, it involves the money which the investor already has. His interest is additional money which he expects to receive. But even, if for some reason or other he should not receive his interest, he naturally must give his most careful consideration to the preservation of his principal. The importance of "safety of principal" is stressed in all investment advertising, whether such advertisements relate to the advantage of doing business with a particular house, or to the advantage of buying a particular security, yet, far too many investors are prone to let it be outweighed by comparatively minor considerations.

Assuming that on any particular bond this most important phase of the investment is satisfactorily covered, with every possible assurance that the principal is to be repaid at the time promised, the investor must next satisfy himself as to the ability of the borrower to pay his interest regularly. The loan may be secured by plenty of assets, and presumably the trust indenture has been drawn in such a manner as to prevent dissipation of those assets, thus maintaining security of the principal throughout the life of the loan.

VARIATIONS IN INTEREST RATES

The next fundamental point in making an investment is the amount of income to be received by the lender. Interest

is nothing more or less than a rental paid by the borrower for the use of money belonging to the lender. If the debtor corporation issuing a bond is strong financially and has an ably managed and successful business, then that corporation is entitled to and is able to borrow money at a lower rate of interest than a corporation of lesser financial strength or business standing. For instance, the General Electric Company can issue a long-term bond without specific security and carrying a comparatively low interest rate and that bond will be eagerly sought by investors and institutions at a comparatively high price, because the investor prefers to accept the lower income rate in order to hold the obligation of a company of such well-known strength. Another corporation which, while altogether successful, does not have the exceptional record of earnings and management enjoyed by the General Electric Company, may have to provide not only a mortgage on its property as security for a loan, but may also have to pay the investor 1% or 2% more interest each year in order to make its loan attractive to the public.

Of course, money has more or less of a standard rental value which varies according to money market conditions. There is one market quotation on bank call loans, still another market quotation for bank time loans running, say six months, and there is likewise a fairly well established quotation for long-term loans in the form of bond issues. A study of the quotations of, let us say, 25 public utility bonds of similar character will reveal very little difference in the investment yields afforded by such issues. If an investment is contemplated in a public utility bond which offers a lower degree of security or earning power than this group of 25 issues, the investor should expect to receive an increased return on his money on account of the increased risk; and, likewise, he should expect to lend his money at a comparatively low rate of interest to a corporation of exceptional strength. In other words, the rate of interest which an investor can expect to receive is dependent primarily upon the current level of yields on standard bonds

of the type he has under consideration, and this rate should be lowered or increased according to the element of risk in the particular bond which he buys.

Many investors feel that their money has some peculiar characteristics which entitle it to receive a higher rate of interest than the funds of the average individual, and they insist on buying bonds affording a higher return than is consistent with the safety they require. Usually, it is the investor of modest means who makes this mistake, with the result that one who can least afford to take chances with his hard-earned surplus is in at least a semi-speculative position. He will probably resent any accusation that he is a speculator, yet he is a speculator, and a poor one at that, for there is not even a good gambling chance in risking 100% of one's principal in order to gain an extra 1% or 2% interest.

THE STANDARD OF INCOME YIELDS

What determines the standard of prices on income yields? Quotations on bonds are governed by the law of supply and demand—the same law that governs the quotations of all other commodities, whether they are real estate, grains, shoes, or anything else. If there is a strong demand for bonds of a certain issue and there are not enough bonds to fill all of the buying orders in the issue, then that bond is bound to advance in price. Likewise, if there are more bonds of an issue for sale than there are buying orders for that issue, then the quotation will decline; and the upward or downward movement in the quotation will continue until the supply catches up with the demand, or vice versa.

The same law of supply and demand applies not only to specific quotations on particular issues, but it applies to the bond market as a whole. Let us assume that a good quality of investment bonds of a certain class is selling to net the investor 6% on his money for the term of the loan. General business slackens off and the individual investor finds him-

self with a surplus of money which he is not using in his business; for the same reason his bank finds no demand for its funds in ordinary business channels. Both the investor and the bank are desirous of keeping their money at work and they decide to buy bonds of this particular class. There may be a plentiful supply of these bonds for sale in the market on a 6% basis, but after a while a great many other investors and a great many other banks come into the bond market to employ their funds. When these purchasers have absorbed all of the bonds which are for sale on a 6% basis, further bonds of this character will be available only through the offering of a higher price and the late comer among these buyers must content himself with a lower rate of interest if he wishes to invest his money.

In this illustration we see the law of supply and demand working along the lines indicated. The supply of money to be loaned is in excess of the demand for loans, and, therefore, the interest rate has been forced downward. Viewed from the standpoint of bond prices, the demand for bonds has grown in excess of the supply of bonds, and therefore, true to the never failing principle of this law, the price of the bonds has advanced. With a return of brisk business conditions the demand for money increases, the investor must sell his bonds in order to use the money in his business, corporations borrow increasingly at the banks, thereby forcing the banks to sell their bonds to satisfy the commercial demand for funds and we have the reverse of the foregoing illustration, with the law of supply and demand forcing interest rates up and bond prices down.

A study of quotations may reveal so many inconsistencies in prices at certain times as to indicate that there are really no particular factors which control those quotations. The law of supply and demand is working, however, for that law always runs true to form. An investigation of any case which may seem to be the exception will show that the law is working perfectly but that there are other elements in the particular situation which may not have been appar-

ent on the surface. In fact, one will generally find that the explanation of the inconsistencies is that the law of supply and demand is working to the exclusion of all other factors. For instance, one may see a quotation of 95 on a first-mortgage 6% bond of a certain corporation and on the same day a quotation of 93 on another 6% corporation bond, which beyond question possesses investment merit superior to that of the bond selling at the higher price. One will probably find, however, that some one has taken the trouble to create a demand for the higher-priced bond while the other issue commands no general investment interest and, therefore, can be disposed of only on bargain terms.

It is fairly generally believed that intrinsic values govern bond prices, and, in fact, as has been stated earlier, the rate of income on bonds will vary inversely as to the security. In any long swing this is true, yet it becomes true only to the extent that intrinsic values affect supply and demand. For comparatively short periods, the statement regarding control of intrinsic values over quotations may be proved untrue, although, in the long run, the discrimination in favor of the bond of superior merit or against the bond of inferior merit will affect the demand for one or the supply of the other, so as to adjust the comparative quotations to a consistent level.

ACCRUED INTEREST

The next topic to be considered has to do with certain technical practices in the bond business relative to methods of computation and their significance. Before considering these points, let us for a moment consider the physical appearance of a bond. In the main body of the bond we have the recital of the promise of the debtor corporation to pay a specified amount, say \$1,000, at a certain future date. Let us suppose that this promise to pay is dated July 1, 1923, and that the debtor agrees to pay the bearer of the bond the sum of \$1,000 on July 1, 1925, with semiannual interest during

the life of the loan at the rate of 6% per annum, such interest payments to be made on the first day of January and of July, in each year, upon surrender of coupons attached to the bond. Six per cent interest on a \$1,000 bond requires the payment of \$60 per year, or \$30 each six months, and, therefore, each coupon attached to this bond will call for the payment of \$30. Now let us suppose that you are an investor who bought one of these \$1,000 bonds on July 1, 1923, at 95 and accrued interest. When you drew your check on July 1, your bill called for 95% of the face value of the bond, or \$950, but inasmuch as the bond started to bear interest beginning that same day, you paid no accrued interest. Now let us assume that you sold that bond March 7, 1924, at 102 and interest. In the first place you would have detached your coupon January 1, 1924, and cashed it for \$30, thereby receiving your interest for the first six months, during which you had your money invested. Having had your money invested from January 1 until March 7, 1924, however, you are entitled to receive from the buyer of your bond the accrued or uncollected interest which he will receive on the next interest date, but to which he would not be justly entitled, unless he had paid you for it. The time elapsed between January 1, 1924, and March 7, 1924, is 2 months and 6 days, so that in addition to the price of 102% of the face value of the bond, or \$1,000, you are entitled to receive 6% on the \$1,000 face value for 2 months and 6 days, or \$11.

Interest on bonds is figured at the rate of 30 days to the month and 360 days to the year. In other words, the interest from January 1 to February 1, actually 31 days, is figured on the basis of 30 days to the month and, at the rate of 6% interest, amounts to \$5. Likewise, interest at 6% from February 1 to March 1 is also \$5, regardless of the fact that there were only 29 days in that month. If the buyer of your bond paid you \$11 accrued interest when he received it on March 7, he is out of pocket only temporarily, for on July 1, after holding the bond for three months and 24

days, which would entitle him to receive interest amount to \$19, he clips and cashes his coupon amounting to \$30, and thereby reimburses himself for the \$11 accrued interest he has paid to you. Accrued interest is, of course, computed on the face value of the bond and is not affected by the sale price, no matter how great the premium or discount at which the bond is quoted.

If, however, a bond is in default on its interest, no interest is computed, and the buyer receives the bond with all unpaid coupons attached. The price of such a bond is called a "flat" price, as distinguished from the "and interest" price, which obtains in the usual bond transaction. On account of the difficulties of computation, foreign bonds payable in foreign currencies are usually traded in this country at "flat" prices, in which case, the price quoted includes the interest accrued since the last previous coupon date.

COMPUTING BOND INTEREST

At various points in this chapter, mention has been made of the income yield or the investment return on bonds which the reader has doubtless noticed was used in a different sense than the coupon rate of the bond. In a year of high bond prices, such as 1906, railroad mortgage bonds bearing 4% coupons sold at substantial premiums above par—in some cases as high as 110% or 115% of their face value. At the time of this writing 5% bonds of the same roads with the same or better security can be bought at a discount. Naturally those one-time premium bonds bearing 4% coupons find a market at this writing only at a price which will offer the investor an income equivalent to that which he can receive from the higher coupon rate bonds now being issued. The 4% bond makes just as satisfactory an investment as the 5% bond if the price is adjusted to an equivalent basis.

The "basis" price of a bond is the rate of income yield to the investor if he holds the bond until maturity. For instance, in the case of the 6% bond which we assumed was

bought at 95 on July 1, 1923, some investors will figure the investment return by dividing the principal invested, \$950, into annual income, \$60, and refuse to admit their return is anything other than 6.31%. This is the proper way to figure the investment return on a stock, and in the case of this bond, the yield of 6.31% is called the "stock yield" or "immediate yield." But the yield to maturity is another matter. The bond for which you paid \$950 is going to be paid off in two years at \$1,000, and this \$50 appreciation is most certainly a part of the income from your investment if you hold the bond to maturity. A bond man will refer to his table of bond values, which is just as essential to his business as a watch is to a locomotive engineer, and he will tell you that a two-year bond paying 6% interest and selling at 95 yields 8.78% interest on its purchase price. You take out your pencil and figure that 8.78% interest for two years on \$950 amounts to \$166.82, which, when added to your principal investment of \$950, makes \$1,116.82. Then to your pleasant surprise, you think you discover that the bond man has actually understated the yield, because you actually receive \$1,000 at maturity plus four coupons of \$30 each, or \$1,120 all told, as compared with your figures calling for \$1,116.82.

For an explanation of the apparent discrepancy, you may note that you are supposed to receive semiannual payments at the rate of 8.78% on your investment of \$950. This figures out to be \$83.41 a year or \$41.70 each 6 months. On July 1, however, you received only \$30. If your investment is to actually yield 8.78% then you are entitled to receive 8.78% interest, compounded semiannually until paid, on that deficiency in interest payments by which the \$30 coupon fails to produce the amount of \$41.70 actually due you. By charging up, semiannually, compounded interest at 8.78% for 18 months on this deficiency of \$11.70 and then adding similar interest charges on the deficiencies in the next two coupons, you will find that the bond actually yields you just what is claimed for it in the basis book. The

basis book figures are compiled by a formula of higher mathematics; and the yields as shown in these books are universally accepted in all bond transactions.

MARKETABILITY OF BONDS

Now to return to a consideration of the third essential factor in a bond purchase—marketability. I have pointed out that quotations are regulated by supply and demand and it naturally follows that the bond for which a stable or advancing market is to be created is one for which a strong demand can be created. Please note that the demand must be created—investors in this country are not sufficiently aggressive in their bond buying to swamp the investment dealer with unsolicited buying orders. Therefore, if a bond issue is to be marketable, it must be well sold. Advertisements, circulars, letters and personal solicitation create a demand for the issue and if the sales effort is sufficiently aggressive and the bond properly priced, the demand will be heavy enough not only to absorb the entire issue when it is originally offered but also to pick up in the open market such bonds as may later be re-offered by those who bought at the time of the original offering.

If a bond of a widely and favorably known corporation is offered at an obviously attractive price, a good selling job at the time of the original offering will probably create enough of a demand to insure a good market for many years. But if the bond is not well known and requires intelligent explanation in order to make investors appreciate its merits, then the sponsor of the bond issue must continue his sales effort after the original issue has been absorbed, in order that there may be a demand for such bonds as may later appear for sale in the market.

You have often read that a large issue has been over-subscribed in an hour and then have seen the bonds selling a few days later below their issue price. When a house of issue or syndicate sells ten million or fifty million dollars

of bonds in an hour or two, the syndicate has as a matter of fact definitely disposed of its bonds, but that amount of selling can be done in such a short time only to dealers who decide on their purchases quickly and who buy in large blocks. Therefore, when the issue is oversubscribed so quickly, it merely means that the task of distribution to investors has been transferred from the syndicate to other dealers. Until these bonds have actually been sold to investors, the holdings of the dealers which are called the "floating supply" constitute an obstacle which will prevent an advance in quotations on the issue, and in fact if the dealers are not successful in their sales efforts, then they will in due course offer their bonds in competition with each other at declining prices.

In the market records, we see a bond issue quoted at 95 bid, $95\frac{1}{2}$ asked, which in trading vernacular is called 95 to $95\frac{1}{2}$. This simply means that 95 will be paid for bonds if you want to sell, or that bonds can be bought at $95\frac{1}{2}$. You will readily see, therefore, that on this quotation sales can take place at both 95 and $95\frac{1}{2}$, without reflecting a change in the quotation. This is an illustration of the difference between a sale price and a quotation. In this case, suppose an order comes into the market to buy bonds at the best price obtainable, and that best price turns out to be $95\frac{1}{2}$ —a sale at $95\frac{1}{2}$ is established. You see a report of the sale and decide that you will sell some of your bonds at $95\frac{3}{8}$. Do not be surprised if your broker cannot execute your selling order, for the previous sale price does not make the present market; it is only the quotation which counts, and as long as 95 is the best bid, your bonds at $95\frac{3}{8}$ will remain unsold. To be sure, however, your offering has narrowed the quotation to 95 bid— $95\frac{3}{8}$ asked. If you had \$50,000 or \$100,000 bonds for sale you have no assurance that you can sell this amount even at 95. This business of trading by dealers in market bonds is a very real business and the dealer who bids 95 for your \$100,000 bonds must in the first place have \$95,000 in real money with which to pay

for them. Furthermore, he does not buy bonds for investment or for exercise, but he buys for the purpose of reselling at a profit. Therefore, if he has no confidence in his ability to sell \$100,000 bonds, he won't buy them at all. If, however, he knows where he can sell this amount of the issue at, say, 94, then he will bid 94 less a margin of profit. Bond traders in the various offices often quote the "size" of their market along with the prices at which they are prepared to buy or sell. For instance, 95 and 95½, 10 and 5, means that the quoting house will buy \$10,000 bonds at 95 or sell \$5,000 of the same bonds at 95½.

TRADING FACILITIES OF THE BOND MARKET

These practices and principles of quotations refer to the stock exchange bond markets as well as to the "street" market. The bond market as generally understood represents largely transactions between dealers, yet the dealer is only a distributor to, or agent for, the investment public, so that after all the dealer can buy only what he or some other dealer can sell to the investor. The main activities of the bond market naturally are concentrated in the investment and banking centers of the country, and the transactions of the comparatively uninterested sections are cleared through the markets of these more active centers. The interconnection of these various centers by private telegraph wires and the connection of the more active trading houses with each other by means of private telephones make it possible for a Chicago bond dealer, in only a few hours, not only to find the best bid or the best offering in Chicago on a particular bond, but to learn the exact situation on that bond in New York, Boston, Philadelphia, Cleveland, St. Louis, and any other center which might possibly have a market in the issue. He either telegraphs over his own private wires or obtains the quotations through another house which has a wire to the city he wishes to reach. This marvelous and expensive system of communication is in reality

the backbone of the trading market, for it practically gives to each market the full trading facilities of every other market.

Of course, the stock exchanges offer the most definitely located markets, for there the trading is done between brokers face to face in the same room. Here the only recognized bid is the best bid and likewise only the lowest offering is recognized. Transactions are in most cases a matter of detailed official record, and efficient trading is easily accomplished. Stock exchange trading in bonds is necessarily restricted, however, because the brokers on the floor of the stock exchange must be paid a commission by the house for which they execute a buying or selling order, and therefore, if two houses can make a satisfactory trade between themselves they will take advantage of the opportunity to save a brokerage charge for each of them.

Also, all dealers are not members of a stock exchange, and in such cases a non-member must trade through an exchange member, thus complicating the transaction as well as paying to the member the full commission which can fairly be charged against the customer. Again, only such bonds as have been approved by the stock exchange and "admitted to listing" may be traded in on that exchange, so the bond dealer must maintain his own trading facilities in order to take care of his business in unlisted issues.

It is not to be inferred, however, that stock exchanges are a thorn in the side of the investment dealer, for an exchange is merely a mutual association of dealers, formed for the purpose of facilitating and standardizing the methods of trading. They have grown to be a protection to the investment public, in that they investigate carefully every security listed on the exchange, require, at regular intervals, statements of earnings and financial conditions of companies whose securities are listed there, and in many other ways protect the investor's interests.

These remarks on the vast trading machinery in the bond market indicate the advantages enjoyed by a bond which

is traded in in the open market as compared with the issue in which there is no general trading interest. Of course, these advantages are of no value to the investor who will never have occasion to realize on his investment prior to the time it is paid. They are of distinct value, however, to the man who expects to sell his bond or who, without actually expecting to sell, wants to be in a position to do so, if occasion should require. If he expects to borrow occasionally from his bank by depositing his bonds as collateral, marketability is a distinct advantage, for the banker will usually lend him about 80% of the market value. If the bond is not readily marketable, this 80% will be based on a comparatively low valuation and if there is any real doubt as to the marketability, the conservative banker will refuse to accept the bond as collateral.

LISTING AND MARKETABILITY

On account of the advantage of marketability, there is naturally a discrimination on the part of well-informed investors in favor of issues which possess this desirable feature. Such discrimination increases the price of marketable issues but seldom makes them reach a level in excess of their intrinsic worth. To most investors marketability is worth what it costs, and every investor would do well to have at least part of his money in marketable bonds in order that he may be insured against the unexpected or sudden requirements of an emergency.

There are many investors who, in their insistence upon marketability, refuse to buy anything but bonds that are listed on the New York Stock Exchange. It should be pointed out right here, that the mere act of listing a bond rarely improves its marketability. When a bond is admitted to listing it has passed the scrutiny of the Exchange, but buying orders are the only thing that can help its marketability. New York Stock Exchange records show numerous issues in which there were no recorded sales in an entire

year and sometimes for several years. Sales may have been made between houses on the street, but that in itself indicates that the listing did not improve the marketability. As to the breadth and reality of the unlisted market, it is a fair statement that, on most any listed bond which might be mentioned, the volume of "street" sales between houses is much larger than the sales of that bond on the floor of the Exchange. In fact, the bulk of the bond trading on the floor of the New York Stock Exchange is done in a relatively small number of issues. The author has never known of a case where the listing of a bond injured its marketability, but he has known a number of cases where the marketability was not improved by listing. If the sponsors of the market on a bond have the ability and inclination to create a genuine and continuing demand for that bond from investors, then the marketability of the issue is assured, no matter whether it is listed or not. Sales of listed bonds are published every day in the newspapers and the ability to follow closely the price of one's holdings is a justifiable basis of preference for the active listed issue.

If a bond possesses satisfactory marketability, its maturity is usually of secondary importance to the investor—(assuming, of course, that the maturity does not violate any rules of sound financial practice or jeopardize the safety of principal). If he expects to need his money to meet a payment on January 1, 1927, then maturity is of primary importance, for he will select a safe bond maturing at or shortly before that time. The United States Government sells large issues of Treasury notes maturing on March 15—the date of income tax payments—not only because the Government will have heavy receipts on that date with which to pay off the notes, but also because investors and banks will readily buy this maturity in order to have money coming in with which to meet the demands of the income tax collectors. The usual type of investor, however, has no such special requirements, and lacking any definite knowledge as to when the money may be needed, it is

usually satisfactory to buy a marketable long-term bond with a favorable yield. If the purchase is made in a period of abnormally high bond prices, then good judgment will dictate the advisability of making a temporary investment in a short-term security with a view to reinvesting in long-term bonds at a later date, when interest rates are more favorable. At the present writing, when long-term interest rates are more attractive than we have been accustomed to, except under war conditions, long-term bonds may be bought with plenty of assurance that no such temporary expedient is advisable.¹

SELF-TEST QUESTIONS

1. What are the three major problems confronting the average bond buyer? Explain each.

2. Which of these three problems is most important to the investor and why?

3. What general factors determine the yield on a bond?

4. Is a bond investor ever a speculator? When? Does he intend to speculate? What type of bond buyers can least afford to speculate? What type usually does so?

5. How do general business conditions affect bond yields: (a) When they are good? (b) When they are bad?

6. Milwaukee Railroad 4s of 1925 are selling around 75 to yield approximately 21% to maturity. Is the law of supply and demand operating to fix the yield on this bond? How?

7. What is meant by paying 100 and accrued interest for a bond? How is accrued interest calculated?

8. What is a "flat" price for a bond? Does it ever include accrued interest? When?

9. Distinguish between interest and bond yield.

10. Define the "basis" price of a bond. The "immediate yield."

11. How does compound interest affect calculations of yield to maturity?

12. How is the market for a bond created? Why is it necessary to create a market for new bonds?

13. Why is a wide market desirable for the investor?

¹This lecture was delivered March 7, 1924.

14. Would you prefer to own a bond listed on the New York bond market or one for which the issuing house "maintains" a market, and why?

15. Why do bond prices sometimes decline after dissolution of a syndicate? Why does a syndicate maintain prices?

16. Might a syndicate ever advance prices in the bond market to a point above the selling prices offered by dealers to their customers? Why or why not?

17. Distinguish between "bid" and "asked" quotations and selling prices.

18. What is a "street" market? What are street brokers? Are they profiteering middlemen?

19. Does marketability cost the bondholder anything? If so should he buy "listed" bonds unless he needs marketability?

20. Of what importance is maturity to the investor?

VII

INVESTMENT ANALYSIS

By BOWMAN C. LINGLE

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The basis of true investment values; necessity of analysis; no rule for analysis of securities. General considerations in analysis: history and management; physical and business factors; earning factors; capitalization factors. Analysis of the specific security; safety of principal and income yield; special bond or stock features; the investment income; marketability, the individual requirements of the investor.

INVESTMENT values are determined principally by two main factors. The first is intrinsic value and the second sentimental value. By value is meant the ability of the borrower to make promptly the payments for which he obligates himself. By sentimental value is meant those various intangible elements which have to do with the preference or prejudice of the investing public and which often are entirely unrelated to the real intrinsic value of the security, but which frequently have a great deal to do with its salability.

There is no rule of thumb which can be used in analyzing the value of a security. The physical examiner for a life insurance company, by measuring your height, and taking your weight, can tell with a reasonable degree of assurance whether you are overweight or underweight, but there is no such method which can be applied to measuring the soundness of an investment.

Many things must be taken into consideration and it is only as a result of years of experience and careful study that it is possible to arrive at a sound conclusion. This is the reason why investors more and more are coming to realize the importance of asking the advice of a reliable in-

vestment house which has had the necessary experience and which has sold securities which time has proved conservative and sound.

It is very rarely that a corporation loan is brought to an investment banking house in its final form. In nine cases out of ten the banker and the corporation must work together to shape up a bond which is marketable and which accomplishes what the corporation wishes done. This business of shaping up safe bonds is not a fixed science, but has changed from year to year just as the science of electricity has progressed and developed. Changing years have brought changing conditions and to meet the new situations new safeguards and new methods have been necessary.

The primary purpose of this chapter is to touch in a very general way on some of the factors which are taken into consideration by investment banking houses in analyzing the securities they offer rather than to present a course in instruction in how to make such an analysis. The discussion will be limited to the analysis of corporation securities, no attempt being made to cover the field of government and municipal finance.

If the reader has ever seen the various parts of a watch spread out on a table, he has realized how difficult it is for any one but an experienced watchmaker to put them together and make the whole run and keep accurate time. When, then, the reader considers that each piece of financing is a separate problem and that no two are made to fit the same conditions and requirements, he will appreciate that the job of the investment banker is like that of a watchmaker who never makes two watches of the same design, but who is expected always to turn out a product that will keep perfect time, strike exactly on the hour, and run 10, 20, or 30 years without winding. An attempt will be made to take one or two of these watches apart and to describe only the principal springs and wheels so that a slight idea of what has gone into the finished product may be had.

In every piece of bond financing there are certain general considerations which enter into an analysis of the intrinsic security:

HISTORY AND MANAGEMENT

The history and management of the corporation receives early attention. A long record of successful and profitable operation, provided there has been no change in management or in the general character of business done, gives every encouragement to anticipate continued success.

During the last 10 years the Commonwealth Edison Company of Chicago has each year shown larger gross earnings than the year previous, and there has been only one year in this period when there has not also been an increase in the total net income and in that year the decrease was very slight. Similarly the same can be said of a prominent hydro-electric corporation in California, the earnings of which have been steadily increasing for a period of 20 years. Obviously, the bonds of such a corporation deserve to be very highly regarded from the point of view of past history and management. Unfortunately, however, the investment banker does not always have an opportunity to consider the securities of a corporation which has a long history back of it. Frequently, financing is to be undertaken for a company which has been in operation only a few years, and a decision consequently must be based on the stability of the general class of business done and the territory served rather than on past history.

PRESENT POSITION

Assuming that the past history and management of the corporation for which we are endeavoring to shape up a bond issue are satisfactory, the question then comes up as to its present position. Has it enough physical property to justify the loan which is asked? Is its present management

efficient, and are they men who are in good health and likely to remain on the job for some years to come? Are there some able young men coming along to take their places? If it is a utility company, is it giving good service, and is the public which is served, satisfied or dissatisfied?

If it is an industrial corporation, is it in competition with other companies of a similar type which may in time eat into its business, or has it a field which is likely to expand rather than contract?

COMPETITION

The subject of competition is a very interesting one and its bearing on the question of intrinsic value varies greatly with different types of corporations. Experience has shown that in the field of public utility corporations, by which are meant electric light and power, gas, telephone, and street railway companies, competition, instead of being advantageous to the public, is really a detriment. So generally is this recognized that most of the leading states have enacted legislation establishing commissions, which have power to regulate public service corporations. The rules of these commissions, for the most part, forbid one company to enter the field of another, and fix the rates which can be charged so as to assure the public adequate service at a fair cost. In the steam-railroad field there is no longer competition as to freight and passenger rates, but the Interstate Commerce Commission fixes the rates which must be charged by all the railroads operating in a given district.

In the field of industrial corporations, however, conditions are quite different and anti-trust laws and the best interests of the public both operate to prevent the control of most industries by a single corporation. Competition in the packing industry and steel industry, for instance, is recognized as a necessity, and the United States Steel Corporation, even though it were able to control the steel business of the United States, would refuse to do so.

It can readily be seen, therefore, that while a competitive situation in the case of a public utility corporation might be considered a serious objection, in the case of an industrial corporation a condition of healthy competition would be an advantage rather than otherwise, provided the field of activity in which the company operates is not overcrowded.

FUTURE PROSPECTS

Assuming now that an investigation indicates that the present condition of a corporation as well as its management and past history are satisfactory, there still remains to be considered its future. Is it furnishing a service the demand for which will continue or increase? Is the particular class of product it is manufacturing or service it is rendering of a type which is gradually being superseded by something else and the demand for which is likely to decrease or perhaps disappear altogether, or is the demand for it likely to increase?

The gas companies are an excellent example of how the character of a corporation's business can change. Thirty years ago practically all of the gas manufactured was used for illuminating purposes; today the percentage used for light is very small and practically all of the output is used for cooking and heating. Those who are actively identified with the industry have realized all along that while the business was changing it was fundamentally sound from the investment point of view, for a new field was opening up faster than the old one was disappearing.

EARNINGS

Assuming now that the corporation both in past history and management, in present conditions and future prospects is satisfactory, there is the future element of earnings to be considered; for, regardless of how much physical property it may have or how well it may be managed or

TABLE II

TYPICAL CAPITALIZATION AND EARNINGS STATEMENT OF PUBLIC UTILITY CORPORATIONS

	Stock	Authorized	Outstanding
CAPITALIZATION			
Original Preferred (paying 8%)	\$ 4,000,000		\$ 4,000,000
Preferred (paying 7%).....	36,000,000		6,232,700
Common (paying 8%).....	60,000,000		46,009,572
Total Stock.....	\$100,000,000		\$56,242,272
Dividends have been uninterruptedly paid on the common stock since 1910.			
Bonds			
General and Refunding Mortgage Bonds (of the outstanding bonds \$10,000,000 are 5½s, \$10,000,000 5s, and the remainder 6s).....	Authorized		Outstanding
	\$136,000 000		\$53,865,000
Underlying Mortgage Bonds Outstanding with Public...			30,740,700
Total Mortgage Bonds.....			\$84,605,700
7% Gold Debentures.....			4,896,000
EARNINGS AND EXPENSES			
Years ended March 31			
	1922		1923
Gross Earnings.....	\$17,179,126		\$17,011,160
Operating Expenses, Including Taxes, Insurance, and Maintenance.....	7,227,771		7,069,308
Net Earnings.....	\$ 9,951,355		\$ 9,941,852
Annual Interest Charge on \$84,605,700 Mortgage Bonds.....	4,658,175		
Balance Available for Interest on Debentures, Amortization, Depreciation, and Dividends..	\$ 5,293,180		
Net earnings over twice mortgage bond interest charges.			

how good a field it operates in, unless it can earn a fair return upon the amount invested, it obviously is not a sound basis for loaning money. Table II is a typical statement of the capitalization and earnings of a public utility corporation in the form in which such statements usually appear in the offerings of public utility corporation bonds. The first item is gross earnings, by which are meant the gross receipts of the corporation. From the gross earnings are deducted operating expenses, maintenance, and taxes

to arrive at the net earnings. Operating expenses consist of wages paid to employees, cost of fuel, administration, office expenses, and the other sundry items that go into the operation of any property. By maintenance is meant the expense necessary to maintain the operating efficiency of a property. For example, electric light and power companies are continually obliged to spend substantial amounts for maintaining their distribution systems. Wires are carried down by storms, fires, or other causes, and regular appropriations must be spent each year for the purpose of maintaining these lines. Taxes include both real estate and personal property taxes and federal income taxes. These three main items, deducted from the gross earnings, produce the item of net earnings available for interest charges.

It is generally considered that unless these net earnings are at least approximately twice the total bond interest charges of a public utility corporation, the statement is not very satisfactory, and there are many cases of corporations which have net earnings of three or four or even five times the total interest charges on the company's outstanding bonds. The larger the ratio, the stronger, of course, is the intrinsic security back of the bonds.

The earnings statements of industrial companies are ordinarily prepared in a form somewhat different from those of public utility corporations and are more subject to fluctuation owing to general business conditions. It is customary with industrial corporations to show an average for a period of four or five years or even longer and this should particularly be taken into consideration in analyzing statements of industrial corporations which for special reasons are making a very favorable earnings statement at the time the securities are offered; for it is obvious that a bond based on the earnings for a single year might later make a much less favorable statement. On the other hand, if earnings for a period of, say five years, make an average statement which is favorable in comparison with present interest charges, the situation is a proportionately stronger one.

FINANCIAL STRUCTURE

The next factor to be considered is the financial structure of the corporation. By this is meant the amount of common stock and preferred stock it has outstanding and the relation of its stock capitalization to its funded or bonded debt. In the case of public utility corporations this is ordinarily indicated by a simple statement showing the amount of common and preferred stocks outstanding, as shown immediately above the earnings statement in Table 11.

BALANCE-SHEET

In the case of industrial corporations, however, the situation is more complicated and is ordinarily set forth in a complete balance-sheet. In the lower section of Table 12 is illustrated a typical balance-sheet of an industrial corporation and immediately before it a statement of earnings. The balance-sheet is divided into two principal headings: first, the assets; second, the liabilities.

The assets consist of:

1. The corporation's fixed property, which includes real estate, plants, machinery, and so forth;
2. Good-will, trade-marks, and so on. These have frequently been built up by a very substantial outlay in advertising, but they are intangible and are not considered a desirable basis for loaning money. Many corporations carry these items at \$1;
3. Investments, which include Liberty bonds, stocks, or bonds in other corporations or subsidiaries;
4. Current assets, which consist of cash on hand, inventories (either manufactured goods which have not yet been marketed or raw materials which are in process of manufacture), and accounts receivable, which represent the money due from customers to whom goods have been sold but from whom payment has not yet been received.

The liabilities consist of:

1. Capital stock, which has no maturity and represents

TABLE 12

TYPICAL EARNINGS STATEMENT AND BALANCE-SHEET OF
INDUSTRIAL CORPORATIONS

The net profits before interest and federal taxes for the seven years May, 1914, to May, 1920, averaged.....	\$ 4,674,398.49
And for the ten months ending March 5, 1921, amounted to.....	2,921,032.72
The annual interest charge on the first-mortgage bonds is.....	700,000.00
In the same period of seven years net profits after payment of interest, federal taxes, and all charges averaged.....	2,590,255.41
BALANCE-SHEET	
ASSETS	
Plant.....	\$24,654,570.02
Good-Will, Trade-Marks, Trade Names, etc....	.....
Investments.....	1,992,855.83
Current Assets:	
Cash.....	\$ 2,358,022.81
Accounts Receivable.....	9,472,752.53
Inventories.....	<u>36,577,066.74</u>
	48,407,842.08
Deferred Charges.....	<u>997,632.55</u>
Total Assets.....	\$76,052,900.48
LIABILITIES	
Capital Stock.....	27,000,000.00
Bonds (present issue).....	10,000,000.00
Current Liabilities:	
Accounts Payable.....	\$ 6,939,468.76
Notes Payable.....	<u>23,298,375.00</u>
	30,237,843.76
Reserves:	
Depreciation.....	\$ 5,089,043.88
Pension Fund, etc.....	<u>660,711.10</u>
	5,749,754.98
Surplus.....	<u>3,065,301.74</u>
Total Liabilities.....	\$76,052,900.48

the ownership of the corporation. It receives dividends if they are earned and are paid out by the directors;

2. Bonds or other funded debt representing money borrowed which the corporation has promised to repay at a certain definite date, usually some years in the future;

3. Current liabilities, which include short-time loans at the bank, bills payable for raw materials, and other items not yet paid for;

4. Reserves, such as reserve for depreciation, pension funds, and so forth;
5. An item of surplus which balances the two accounts.

A proper analysis of a balance-sheet requires a knowledge of how the value of the fixed property was determined. Is it cost price or is it the price it would cost to duplicate the real estate and plants at the present time? If the corporation has plants located on real estate bought many years ago, it is obvious that the management is entitled to take into consideration its present value based on what similar property is selling at today; and if it has plants which were built years ago and have shown the depreciation which time always brings to buildings, it is necessary to make sure that proper depreciation has been allowed for, in preparing the figures for the balance-sheet.

Under the heading of current assets, the item of accounts receivable should be carefully analyzed and no doubtful accounts should be included, for it would be possible for a corporation truthfully to state that it had \$10,000,000 of accounts receivable when, as a matter of fact, the management knew that \$5,000,000 of that amount was worthless and would probably never be collected. Every well-managed industrial company promptly charges off such doubtful items, but the careful investment banker must be sure that this has been done or his analysis will not be correct.

Inventories are another important item. Are they carried at cost prices or at market prices, and is there in the inventories any substantial amount of old, slow-moving goods, on which the company will probably be obliged to take a loss? A corporation with an abnormally large inventory which contains a substantial proportion of old stock is obviously in a poor position, and the analysis of the inventory should include a comparison of figures covering a period of years, in order that the investigating house may be sure that the present condition of the company is

not abnormal. The relation of current assets to current liabilities is a very important item and is given careful consideration. These are only a few of the problems which come up in analyzing the balance-sheet of an industrial corporation. Each separate company and each line of business has its own special problems, and the investment banker has need of all the experience and wisdom at his command to avoid making mistakes.

MARGIN OF SAFETY

Passing on now from the general considerations which enter into the analysis of a security, let us consider some of the points which come up on specific issues. The intrinsic value of a bond is the measure of safety of principal and interest. Unfortunately, there is no such thing as absolute safety, but the greater the intrinsic value, the greater is the element of safety, and the smaller the possibility of loss. The value of the property back of any given issue of bonds can be considered:

1. From the point of view of its cost, less depreciation;
2. On the basis of a recent appraisal by competent experts who have valued it based on the basis of present conditions;
3. On the basis of what it would be worth under adverse conditions. In other words, what could the investment banker do with it if he were obliged to foreclose on his mortgage and take over the property with the idea of reselling it? This often is a very different matter than its value as a successfully going concern.

The margin of security is also sometimes expressed in terms of the market value of all securities which are junior to the lien of the particular issue of bonds under consideration. This is not necessarily, however, any real indication of intrinsic value, and, of course, in the case of many relatively small, obscure companies where stocks are not listed, it is very difficult to arrive at a market value which really means anything.

The relative position of the issue of bonds under consideration with respect to other bonds outstanding must be carefully analyzed. Thirty years ago most of the public utility bonds were absolute first mortgages of the corporations issuing them, but as industry grew and expanded, it was necessary to bring out new issues of bonds, and the expense of retiring, under the option, all the outstanding bonds, even though by their terms it was possible to do so, would have placed a very heavy burden on the corporations, and, indirectly, on the public which made use of the service supplied. As a result, there were second-mortgage bonds, refunding mortgage bonds, and various other types of financing to which the investing public was gradually educated and which, when properly drawn, have proved to be thoroughly safe investments.

In this connection it is interesting to consider one property which in a period of less than 10 years entirely outgrew two suits of clothes. The first financing which this corporation undertook was an issue of \$1,100,000 first-mortgage 5% bonds. Within a very few years the development of the territory which it served required the drawing of a refunding and general mortgage which was authorized to the amount of \$5,000,000 and which it was thought would supply the company with all the funds needed for a period of over 30 years. In less than 5 years, however, this mortgage had been entirely exhausted and the business of the company was expanding so rapidly that it was necessary to authorize a new issue of general mortgage bonds to the amount of \$25,000,000, under which subsequent financing has been done. By carefully analyzing the situation and studying the requirements of the corporation, the bankers were able to draw all three mortgages in a way fully to protect the bondholders and at the same time permit the rapid expansion of the business and extension of the territory which the company served.

We have already discussed in a general way the importance of earnings. These, of course, must be analyzed care-

fully from the point of view of arriving at the figures of new earnings available for payment of interest. In such an examination the investment banker usually calls in a certified public accountant who, in the case of a large corporation, may spend weeks going over operating statements covering a number of years, before making his final report.

Provision must also be made to include in the trust deed stipulations which will insure a continuance of a satisfactory margin of property back of the bonds during the full life of the mortgage. In the case of public utility corporations this is ordinarily done by providing that no additional bonds can be issued except for 75% of the cost of additions and extensions to the property and then only provided net earnings for the preceding year have been at least twice the interest charges on the bonds outstanding, including these which it is proposed to issue. This restriction makes certain that as additional bonds are put out from time to time further money must also be provided either from earnings which remain in the property or from the sale of stock and that no more bonds will be issued unless the earnings statement continues to be satisfactory.

In the case of industrial corporations no two deals are usually worked out in exactly the same way. The object of the conservative investment banker is to work out some plan which will not hamper the particular corporation, but will insure a continuance in the business of sufficient current assets and fixed property amply to protect the outstanding bonds. It is frequently required that net current assets, after deducting all current liabilities, must be maintained to an amount of 150% and in some cases even 200% of the funded debt. If this provision is lived up to, it would mean that without any reference to the plants or fixed property of the company the current assets alone would be sufficient not only to retire all the current obligations, but also the longer time funded debt. There are classes of business where arrangements as stringent as this are impossible, but which are protected in other ways.

MATURITY

There are certain features of each bond issue relating to the terms of the bonds themselves which must be carefully analyzed. One of the most important is maturity. Lines of business which are most subject to change should be financed with relatively short-time securities. On the other hand, a business which has a long history back of it and is not subject to much variation can safely be financed with bonds having a much longer life. The investment banker must accordingly analyze the particular situation which is under consideration with a view of carefully considering how long a maturity can be safely agreed to, having in mind both the needs of the corporation and the safety of the investment.

SINKING FUND

The provisions of the sinking fund are of very great importance. Twenty years ago it was customary for public utility corporations to put out issues of bonds which required retirement of certain specified amounts each year. Sometimes the bonds were retired in numerical order, and sometimes they were called by lot, but almost always at a substantial premium. Some years ago, one corporation was required to call by lot about \$300,000 of bonds annually at a premium of 110. At this same period this corporation was growing rapidly and was selling new bonds at about 90, the proceeds being applied to new construction. It was obviously an unscientific arrangement which benefited only a few holders whose bonds happened to be paid at a fancy price. It would have been much more scientific and much sounder financing both from the point of view of the corporation itself and the majority of its bondholders if the \$330,000 which was required each year to pay off bonds at 110 had been expended on the property with the understanding that no additional bonds could be issued against that particular expenditure. The latter ar-

rangement would have given all the bondholders the benefit of an additional margin of security and would have saved the corporation itself \$60,000, which was the difference between the price it was securing for the new bonds and the price it was obliged to pay for those it was retiring. Frequently in the case of industrial corporations the sinking fund is worked out on a basis which makes it dependent upon the earnings, thus enabling the corporation to retire its debt in the years when its earnings are largest. The working out of a sinking fund which will retire the bonds without hampering the development of the company is very important and deserves most careful analysis. Most issues of bonds are redeemable at a premium before maturity and it is important that these options should be carefully analyzed and carefully worked out. Some bonds are also convertible into stocks of the corporation, thus giving the owner the option of either continuing to hold the funded debt or converting it into a security which really represents a partnership in the business. The convertible feature is generally included for the purpose of increasing the marketability of the security by giving it a certain speculative value.

RATE OF RETURN

Some investors wonder why it is that some bonds are offered to yield, say $5\frac{1}{2}\%$, and others to yield $6\frac{1}{2}\%$ or 7% . This also is a subject which must receive very careful consideration by the investment banking house, for it is important, both, from the point of view of the issuing corporation, the investment bankers, and the investor buying the bonds that the security should be brought out at a price that will make it salable and permit a satisfactory future market to be maintained for it. Briefly, the considerations that enter into an analysis of the proper price are:

1. The amount of risk involved. It is axiomatic that

the greater the risk, the higher the return the investor is entitled to and, in a broad way, it generally follows that if the return is high, the risk involved is somewhat in proportion. It is, however, entirely possible for a bond of a relatively small corporation to sell at a price which shows a liberal yield and at the same time to be intrinsically a sounder investment than the security of some larger and better known corporation which consequently has more sentimental value but which intrinsically has not the same margin of security.

2. The rate of return is also governed by general market conditions. At times when there is relatively a small amount of idle funds awaiting investment, new issues are brought out at prices to yield substantially larger returns than the same identical bonds would be offered to yield when conditions were different and the amount of idle funds awaiting investment was large. The large issuing houses all have special methods of their own for keeping closely in touch with general market conditions in order to assist them in deciding when it is the opportune time to make a new offering and what the yield and price should be.

3. The sentimental value also plays an important part in the final determination as to price. If the corporation is well known, its line of business popular, and its management recognized as conservative and efficient, it may easily add several points to the offering price even though the bonds themselves are intrinsically no safer than the bonds of an obscure company whose securities are selling substantially lower.

MARKETABILITY

The marketability of a new issue of bonds is governed by another set of considerations which must all be carefully analyzed. The size of the issue is an important factor. Conditions may be such that an offering of \$25,000,000 is sure of success and will probably sell at a higher price after

it is offered, whereas \$50,000,000 of the very same bonds might prove a relative failure and sell at a lower price after the offering has been brought out. And, perhaps more important than the size of the issue are the reputation and distributing ability of the issuing house. The careful investor attaches great importance to the names of the bankers by whom the offering is presented and their reputation for bringing out successful and sound issues.

INDIVIDUAL REQUIREMENTS OF THE INVESTORS

The requirements of individual investors, of course, vary greatly. All of the New England states and many other states now have definite laws governing the investment of funds by savings banks, and the officers of such banks are required to follow these restrictions. The same applies to the investment of trust funds; the trustee is not at liberty to select a security which is satisfactory to him, unless it conforms to the laws of the state in which he is located and which govern such investment. Insurance companies in some states also have restrictions placed on their investments, all of which must be taken into consideration not only by the investor, but by the investment banker. It frequently happens that a security can be shaped up in one of several ways and it is obviously to the advantage of the banker, the issuing corporation, and the investor to shape it up in a manner that makes it comply with these special restrictions, if it is possible to do so, thus making it eligible for markets where it would not otherwise be legal and often permitting it to be offered at a higher price than would otherwise be possible.

Each investor must also consider his own particular requirements and these requirements, in the order of their importance, are as follows:

1. The risk involved. Does the rate of return justify it?
2. Diversification of the investment account. Too many

eggs should not be placed in one basket, nor too large a proportion of the investor's funds in one general class of securities.

3. The degree of marketability. Could the security be realized on in case of necessity, and is it likely that such necessity will arise? It is not only unnecessary but extravagant for an investor to select a security with unusual marketability if he is not likely to take advantage of that marketability.

4. Maturity. Do the bonds run for the period of time which is desirable from the point of view of the investor who is buying them?

5. The size of the investor's taxable income. If his income is large and his surtaxes are heavy, it may easily be desirable to buy a lower rate, tax-exempt bond rather than to take taxable securities paying a substantially higher rate.

The purpose of this chapter is merely to suggest a few of the considerations that come up in connection with each new issue of securities. When one reads the finished circular or sees the public advertisements, the final result usually seems quite simple, but it frequently is the outcome of many weeks or months of careful study and close analysis, and the more carefully it has been studied and the more closely it has been analyzed the more likely it is to have been worked out on a basis that is sound both from the point of view of the issuing corporation and the investor who buys it.

SELF-TEST QUESTIONS

1. In studying a bond for investment purposes what about history and management of the concern issuing the bond would you want to know and why?

2. What facts about the present of the corporation would you want to know and why?

3. Why is it important to consider competition in analyzing a corporation whose bonds you propose to purchase?

4. Why are public utilities given monopolies and why are

steel companies prosecuted if the government feels that they are trying to obtain a monopoly?

5. What information would you want in order to analyze the factor of competition?

6. What factors would you consider in judging the future prospect for an electric light and power company; a concern manufacturing radio or boots; a match-producing business?

7. Work through the earnings statement in Tables 11 and 12. What is the investment significance of each item therein?

8. Why is it desirable to have net earnings at least twice bond interest on public utility bonds? Would the same rule hold for oil bonds; bonds of a young steel corporation?

9. Over how long a period should average net earnings be calculated in determining an adequate margin of safety of profits over bond interest?

10. What is the "financial structure" of the corporation? Of what importance is it to the investor?

11. What is a balance-sheet? Work through the balance-sheet attached to the lecture and indicate the investment significance of items or ratios between items found therein.

12. Indicate how the line of business and the stage of the business cycle affect analysis of balance-sheets. Is a comparative balance-sheet better than one as of a given date?

13. What factors should be considered in judging values of property security for bonds? What should determine the margin of safety in this connection? How may its continuity be insured?

14. Is a second mortgage necessarily a risky investment? Why or why not?

15. What factors should be considered in determining whether or not maturity of a bond is satisfactory?

16. What is a sinking fund? Serial maturity? Call provision? What are the purposes of each?

17. Why are bonds callable at a premium? At the option of the issuer only?

18. Suggest tests of the desirability from the investor's viewpoint of a sinking-fund plan.

19. When is a sinking fund most desired by the investor? When is it likely to be used by the corporation?

20. What determines the price and yield of a bond and why?

21. What factors determine marketability?

VIII

BONDS IN RELATION TO TAXATION

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Different kinds of taxation: property taxes; securities taxes; sales taxes. Various taxing bodies: federal taxes; state taxes; county taxes; district taxes; municipal taxes. Tax-exempt securities: federal obligations; state obligations; municipal obligations. Constitutional basis of exemption. Federal income tax laws: as affecting stock dividends, foreign government and municipal bonds. Who buys tax-exempt bonds? Tax-free covenant clause. State income and personal property tax laws. Pennsylvania four-mill tax. Estate and inheritance taxes.

THE relation of bonds to taxation covers so wide a field that only the essentials will be discussed in this chapter, which consists of a paper prepared for a lecture to a class in "Fundamentals of Investment." Throughout, the word "bonds" will include bonds, notes, debentures, and in addition, mortgage notes, popularly known as mortgages. In order to study the effect of taxation on bonds it will be necessary also to consider its effect on corporate stocks, because stocks compete with bonds in certain investment markets.

Taxation is the public charge made against persons and property to pay the cost of government facilities and administration. This discussion will have to do principally with taxation more particularly affecting bonds and stocks. Accordingly the subject aligns itself under the following six headings:

1. Different kinds of taxation.
2. Various taxing bodies.
3. Tax-exempt securities.
4. Federal income tax law.
5. State income and personal property tax laws.
6. Estate and inheritance taxes.

I. DIFFERENT KINDS OF TAXATION

(a) *Property Taxes.* The simplest kind of tax is the direct property tax. If in a simple community there were 10 families each owning the same amount of real estate of the same value, taxation in that community would be simple. Assuming the value of each piece of real estate to be \$10,000 and the annual cost of governing the community to be \$1,000, the annual charge or tax upon each family would be \$100. The tax in this illustration would be a district real estate tax based upon a full or 100% valuation of the taxable property and the tax rate would be 1%. This tax is also known as an ad valorem tax—that is, one based on value. Communities, however, are not made up of owners having property of equal value, so that a separate valuation is necessary for each piece of property. Valuations are matters of opinion, and, partly on account of variations of opinion regarding the value of any given property, it is sometimes thought better to tax not on full values but on fractional values. The simple method of taxation is to find the amount of taxes to be raised, then ascertain the value of the entire amount of property subject to tax and prorate the total tax over the total property values. If, in the community illustrated, taxes were assessed on a 50% valuation, the assessed valuation would have been \$50,000 and the tax rate, therefore, would have been 2% instead of 1%.

It will be seen that a tax rate, taken alone, has no definite meaning until the method of valuation is also known. We have been considering taxes affecting real estate or real property—that is, land and buildings. Taxes are levied also on personal property. Personal property for tax purposes is generally considered in two classes. One class is called tangible and consists of visible property, such, for instance, as household furniture, live stock, vehicles, farming implements, a storekeeper's stock of goods, or a manufacturer's machinery. The other class is called intangible

property and consists of contract rights, such, for illustration, as the rights represented by the class of contracts known as bonds, notes, and stock certificates. There are other taxes, such as those on occupations, trades, and professions, the commonest form of which are the well-known license taxes. These have no direct effect on securities and need not be discussed. The real and personal property taxes referred to are direct taxes. There is one property tax, considered indirect, called an excise tax, that has an effect on securities. This is often levied on corporations and is a tax on the privilege of doing business in corporate form. The privilege, being an invisible and intangible thing, is usually measured by the value of the tangible property of the corporation. This has given rise to a theory of taxation sometimes called the "yardstick theory," by which the value of tangible property is used as a yardstick to measure the value of intangible property such, for instance, as a franchise. Further on in this chapter, when the effect of taxation on different classes of securities has been considered, the application of this theory of taxation will be seen.

(b) *Securities Taxes.* Fixed property, such as real estate, is taxed where it is located, whether or not the owner lives in the same place. Personal property is generally taxed at the residence of the owner. Taxes on property of this kind are said to follow the person. They are commonly classed as intangibles and are known in legal terms as choses in action as distinguished from tangibles or choses in possession. Bonds and notes particularly are taxed under this rule. The rule as to stocks is usually as stated, but sometimes stocks are taxed through the corporation, and a resident of the state in which the corporation is organized is not taxed directly on account of them. It is a common expression to say a given stock is tax exempt in Illinois. This is a trade expression. The stocks really are not tax exempt in a strict sense because the corporation pays the tax for the

owner who is a resident of the state of incorporation. In the hands of a non-resident of that state the stock would be taxed directly to the owner. There is an exception to this last rule in the case of a stock of national banks and joint stock land banks. Under the federal law these stocks can be taxed only where the bank is located, and the tax is collected through the bank. Some banks pay this tax out of earnings and some deduct it from the stockholders' dividends. Both state and national banks in Illinois pay the tax out of earnings and the amount of the tax is in effect an extra dividend to the stockholder.

The constitutions of some of the states provide that all property shall be taxed alike. Other states provide that property shall be classified for tax purposes, and that tangible property shall be taxed at one rate and intangible at another. Tangible property, being visible, usually bears the greater burden. Intangible property, being easily concealed, bears a lesser part of the burden. For that reason the taxation of intangibles presents the hardest problem to the authorities. In states where classification is permitted, intangibles are often taxed at a lower rate than tangibles, so as to encourage owners to declare them for taxation on the theory that most citizens would rather pay a fair rate of taxation than be classed as tax-dodgers. Some states have mortgage-recording acts by which a tax is required to be paid at the time of recording a mortgage and by which the notes secured by the mortgage are afterwards exempt from further tax in the hands of owners who are residents of the state where the mortgage property is located. Such states obtain the tax on mortgage notes in this manner and then often provide for the taxation of other bonds and notes by a registration act. Under a registration act securities are presented for record at the office of a designated tax official, and upon the payment of the required tax are stamped and are afterwards free of tax in that state in the hands of any holder. Illinois has neither a mortgage-recording tax nor a registration tax.

(c) *Sales Taxes.* A sales tax is a direct tax on sales of property. Few of the states have taxes of this character, except on sales of stock. These usually take the form of stamp taxes on stock sales and transfers. Such transfer tax laws generally tax sales and transfers of par-value stock at a fixed rate for each \$100 or fraction of par value and on stock of no par value some have a fixed rate for each \$100 of market value and some a fixed rate per share. The federal law taxes real estate transfers and the transfer of shares of stock. This law taxes sales and transfers of par-value stock at 2 cents on each \$100 or fraction of par value and of no-par-value stock 2 cents per share.

(d) *Income Taxes.* Income taxes are based on income as distinguished from principal or capital. The taxes we have heretofore discussed have been based upon principal as distinguished from income. The imposition of income taxes has naturally given rise to a number of careful distinctions between income and principal. To use a simple illustration, income is the fruit and principal the tree that bears it. Wages, salaries, fees, and commissions are classed as income. In the case of securities, interest and cash dividends are classed as income. The weight of opinion is that stock dividends are not income but merely a change in form of principal. Whether or not profits arising from the sale of securities are income or accretions to capital is an interesting question. In the case of a dealer having securities for sale no one doubts that such profits are income. The securities in such case are as much stock in trade as a merchant's goods held for sale. In the case of an owner not a dealer the state law governing trust funds generally holds that such profits are additions to principal and not income. Both the federal income tax statutes and the decisions of the United States Supreme Court declare all profits are income for income-tax purposes. The English income tax law and the English courts follow the opposite rule. The proceeds of the sale of subscription rights to stock may or may not

in a given case be wholly or partly profit, and before classification of such proceeds as taxable profit the particular case should be carefully analyzed.

2. VARIOUS TAXING BODIES

(a) *Federal*. The most comprehensive taxing body in the United States is the government itself, which has power to levy taxes throughout the entire country. This power, however, is limited to providing funds for the public purposes of government expressed or implied by the provisions of the Federal Constitution and can only be exercised in the manner set out in the Constitution. It levies taxes under this power through acts of Congress for the support of the government and its dependencies, Hawaii, the Philippines, and Porto Rico. These dependencies are also separate local taxing bodies by virtue of Congressional Acts. For many years the major part of the federal taxes were in the form of customs taxes on imports and so-called internal revenue taxes principally upon liquor and tobacco. During the Civil War and after 1913 the principal federal taxes were levied upon incomes. These income taxes have had a direct effect upon securities.

(b) *State Taxes*. Like the Federal Government, each state is a taxing body exercising its power of taxation under the limitations of its own constitution. In the case of a state, however, its taxing power is limited also by the Federal Constitution. The state, through laws enacted by its legislature, levies taxes for purposes of the state as distinguished from its political subdivisions, such as counties and municipalities. These political subdivisions in turn derive their taxing power by express delegation of authority in the state constitution and the acts of the legislature limited by the constitution. The taxes levied by the state itself are those needful to defray the cost of the administrative government, the building and support of state institutions, such as state colleges and normal schools, hospitals, prisons,

courts, and state roads. Taxes for this purpose are either direct property taxes or income taxes or a combination of both. Direct property taxes of the state are usually apportioned among the political subdivisions in proportion to their tax valuation and are levied and collected with local taxes. Most states have in addition to general taxes special taxes, such, for example, as those in the form of automobile licenses, gasoline taxes, and game licenses collected directly by the state. State income taxes are usually collected by the state directly and partly apportioned to counties and municipalities. State revenues are also derived from fees and special taxes collected by state bodies, such as corporation commissions, railroad commissions, warehouse commissions, "blue-sky" commissions, and public utility commissions. Originally many states had tax limits fixed by their constitutions limiting the rate of tax that might be levied. These have generally been supplanted by debt limits which are far safer for the protection of holders of public debt obligations.

(c) *County Taxes.* The county, being generally the largest political subdivision of the state, exercises a taxing power delegated by the state constitution and legislative enactments. It taxes for the support of the direct functions exercised by the county as a separate political entity generally for the support of courts, institutions, and roads. Its taxes are generally direct property taxes except where it receives its apportionment of income taxes in a state having a tax of this kind. In many states it is the body charged with the direct assessment and collection of all taxes. Under such a plan the taxes collected for the state as a whole are turned over to the state authorities, those collected for the cities, towns, and villages in the county are turned over to the proper officials, and those collected for the county itself are retained.

(d) *District Taxes.* The establishment and growth of special taxing districts have largely come about in the last

half-century. Such districts are political subdivisions of the state having a taxing power delegated by the constitution and laws of the states. They are created either by general enabling statutes or special acts of the legislature. Their geographical boundaries are determined by such laws, as are also their powers and functions. Such are sewer and drainage districts, created for sanitation or agricultural purposes; road districts, geographically limited for administrative purposes; school districts, principally for high schools in interurban areas; water-supply districts, for reservoirs and aqueducts; irrigation districts, for farming purposes; park and forest-preserve districts for public health and recreation purposes; and harbor districts for harbor-front facilities. The very nature of these districts causes them, in many cases, to run over city and county lines and thus they sometimes constitute taxing bodies overlapping cities and counties. Often they are within the limits of counties and cities. They usually have their own debt limits, and because of the overlapping, may cause a debt limit in a given area to be many times that of a contiguous area. For instance, consider the land in a city block located in (1) a county, (2) a sanitary district, (3) a park district, and (4) the city itself. If the separate debt limit for each of these bodies is 5% of the valuation of the property within its boundaries, then this block may be subject to a debt of 20% of the valuation, with the need of enough taxes to support such a debt. Contiguous property lying outside the city and these districts may be subject to a county debt limit of 5% only. Such debt limits and the valuations for tax purposes have all important bearing on the credit standing of public debt obligations of all kinds.

(e) *Municipal Taxes.* The municipality is the smallest subdivision of the state and may be a city, town, or village. Like the other political subdivisions of the state its taxes are levied under power delegated by the state. These powers are usually found in the charter and are exercised

by ordinances enacted by the city council, village trustees, or town meeting, according to the particular kind of municipality. It levies general taxes for the ordinary purposes of its government, such as schools, sanitation, water supply, fire and police protection. It also usually has power to collect license fees of various kinds which are special taxes, and to levy special assessment taxes usually for such purposes as paving, sidewalks, and sewers. Special assessment taxes are a charge on the abutting property or such property as may be adjudged to fall within an area directly benefited by the improvement and are not a general charge to be apportioned over all the property located in the municipality.

3. TAX-EXEMPT SECURITIES

Certain property that would otherwise be taxable is often exempted by law from taxation in whole or in part. The theory of tax exemption is that the benefit to the community growing out of the existence of the institution exempted is equal to, or greater than, the benefit that would accrue to the community from the tax that might be assessed upon it. For example, religious institutions are exempted because they tend to lessen immorality and crime and their existence tends to lessen the cost of government for which taxes have to be collected. Growing timber is exempted in some states because of its effect on the conservation of water supply and to encourage the growth of timber supplies for future building needs. Securities issued by the government, states, and municipalities are exempted by contract on the theory that the exemption causes buyers to take a lower interest rate, consequently lowering the amount of taxes needed to meet the payment of interest. Securities are sometimes exempt through lack of legal power to tax them, as will be seen later.

(a) *Federal Obligations.* Federal obligations may be made exempt from federal taxation by the act of Congress

under which they are issued. The exemption in this case is a part of the contract with the purchaser. Such an exemption from federal taxation exists on all of the outstanding government bonds issued up to and including the 3½s of the late war. The subsequent issues, with the exception of one issue of the Victory notes, were totally exempt in specified amounts of holdings and also exempt from the normal federal income tax. The obligations of dependencies created under acts of Congress are made exempt. So are the obligations issued pursuant to the Federal Farm Loan Act. So far as federal taxes are concerned, these are all contractual exemptions and are based upon the compensating theory of tax exemption. All these securities are, however, exempt from any direct taxation by the states because of a lack of constitutional power on the part of the states to tax them.

(b) *State Obligations.* State bonds may be and often are made exempt by law on a contractual basis. This exemption, however, can only be statewide and such bonds can, therefore, be contractually tax exempt only as to taxes levied by authority of the state issuing the bonds. In the hands of a non-resident of the state of issue they would be taxable under the law of the state where the non-resident lives. For instance, Iowa can exempt its bonds from Iowa taxation in the hands of an Iowa holder, but it cannot prevent Illinois from taxing Iowa bonds in the hands of an Illinois holder. Sometimes bonds issued after a definite date are made taxable or tax exempt by state constitutional provisions. All bonds issued by authority of a state are exempt from federal taxation because of a lack of constitutional power on the part of the Federal Government to tax them. Bonds of other states are taxable in Illinois and so are the bonds of the state of Illinois itself.

(c) *Municipal Obligations.* The bonds of municipalities and other political subdivisions of the states are subject to the same principle of tax exemptions, both federal and state,

as are state bonds. Sometimes, however, they are made contractually exempt only from taxes levied by the body issuing them. This, however, has a very local and limited effect. Municipal bonds, whether issued by Illinois municipalities or those of other states, are not taxable, however, by the Federal Government.

(d) *Constitutional Basis of Exemption.* The exemption of bonds issued by the states and their political subdivisions from taxation by the Federal Government on the one hand, and the exemption of federal bonds from state taxation on the other hand, results from the lack of constitutional power on the part of each to tax the obligations of the other. Early in the constitutional history of our dual system of government existing under the Federal Constitution, the state of Maryland undertook to tax the Bank of United States, chartered as a government institution by Congress. The Supreme Court of the United States denied this power, saying that the power to tax is the power to destroy and that under our state and federal system both the states and the Federal Government must exist independently through the powers granted by the Constitution, and there can be no interference of one with the other. Under this and subsequent decisions of the same court it has been held that neither may lay a tax burden on the instrumentalities of the other. In this connection the application of the yardstick theory of taxation is interesting. Some of the states have levied excise taxes on banks. The tax is laid on the value of the corporate franchise of the bank measured by the bank's net worth. Several states refused to permit banks to deduct the value of their holding of government bonds in ascertaining net worth. The banks contended the states had no power to tax government bonds, and to include them in ascertaining net worth was to tax them. The federal courts held the tax valid because it was laid upon the value of the franchise measured by the government bonds, among other assets, and not a tax on the bonds themselves.

4. FEDERAL INCOME TAX LAWS

The first income tax laws in the United States were enacted in the years between 1861 and 1870 in order to defray the cost of the Civil War. They were passed by Congress without any attempt at apportionment among the states, as is provided by the Constitution in the case of direct taxes. The next income tax law passed by Congress in 1894 was held by the United States Supreme Court in the Pollock case to be a direct tax and to be unconstitutional and void for lack of apportionment. The Constitution provides "direct taxes shall be apportioned among the several states . . . according to their respective numbers." This provision was held originally to apply to land taxes and capitation taxes. Following the decision in the Pollock case, a constitutional amendment was proposed and finally adopted. This amendment, known as the Sixteenth, gave Congress power to levy taxes on incomes without apportionment. The first income tax act under this amendment was passed in 1913. This act has been revised by several intermediate acts, and the law now in force was enacted June 2, 1924, effective as of January 1, 1924. In 1909 a law was passed by Congress taxing the income of corporations. This, however, was held by the Supreme Court to be an excise and not an income tax.

(a) *Statement and Explanation of Law.* Under the income tax law incomes of corporations and individuals are taxed. Individuals are granted exemptions based upon marital status and the number of dependents. These exemptions under the present law are: \$1,000 in the case of a single person, or \$2,500 in the case of the head of a family or a married person living with husband or wife; if husband and wife make separate returns, the personal exemption may be taken by either or divided between them. The exemption for each dependent is \$400 if under 18 years of age, or incapable of self-support. Corporations are divided into two classes, one of which is exempt on account of the purpose of organ-

ization and the other of which is taxed above a minimum exemption which at the present time is \$2,000 if the corporate income is \$25,000 or less. Gross income is defined by the law and by the regulations made by the Treasury Department pursuant to the law. From the gross income the taxpayer is entitled to the exemptions and to certain deductions for expenses and losses, and the remainder, or net income, is subject to the tax. A low rate tax called a normal tax is imposed upon the net income. The normal tax under the present law is 6%, except that in the case of a citizen or resident the rate is 2% on the first \$4,000. All of the net income in excess of a minimum amount is then subject to a graduated tax known as the surtax. This minimum is \$10,000 under the present law. The income tax law has been in effect for 12 years and most taxpayers are acquainted with its general provisions. There will be no attempt in this discussion to go into the question of definite surtax rates and deductions other than those just stated, because they have varied in many respects with each of the income tax acts passed and upon another revision of the law will doubtless be changed again. It is sufficient for this discussion to say that the present surtax begins at 1% and is graduated to a maximum of 40% on incomes over \$500,000.

Income tax has had more than any other a more general direct effect upon the income yield of securities. For that reason there will be considered at this point the general effect of taxation upon security prices and yields. For example, consider the theoretical effects of a tax upon an ordinary corporation bond. We have seen that the two direct taxes in this country affecting such a bond are personal property taxes and income taxes. The personal property tax is imposed upon the principal of the bond and the income tax is imposed upon the interest the bond bears. To realize the effect of a personal property tax consider a hypothetical state having no personal property tax and no income tax. If such a state were to impose a 1% tax upon

the principal of a \$1,000 bond bearing 5%, the owner would be obliged to pay \$10 in taxes each year. This would reduce the income on the bond from \$50 to \$40 a year. If the state, instead of imposing a personal property tax, were to impose an income tax of 20% on the interest of the bond, the owner would be obliged to pay \$10 in taxes each year. This would make exactly the same reduction from his income on the bond, which would then yield only \$40 a year. As a general proposition, of course, all ordinary taxes are paid out of income and the effect is the same whether a tax is based upon principal or income. What would be the effect of such a tax upon the price of such a bond should the owner desire to sell it? If the current investment return at the time were 5% upon such a bond selling at par, the price of the bond would fall from par to 80 and he would be able to realize only \$800 in the case of a sale. The purchaser would demand the going return of 5% on the bond and if he bought it for \$800 he would obtain a net return after paying the \$10 tax of \$40 a year, which is 5% on \$800. This change in price is called the capitalization of the tax and is the general principle affecting the taxation of securities. In this process the tax is discounted by a depreciation of the price of the bond equivalent to the capital value of the tax. The purchaser avoids the burden of the tax which he must pay annually by giving a price for the bond that will allow him to pay the tax and still receive the normal interest return on his investments. This is the simple and theoretical rule that would apply if there were no other factors influencing the income yield of securities. Sometimes the influence of the current market rates of interest, coupled in some cases with a lack of the enforcement of local taxation, or in other cases with its stringent enforcement, is such as to obscure almost completely the effect of taxation uninfluenced by other factors. The theoretical effect of a tax on a bond has just been shown. If this bond were in competition with another bond bearing the same rate of interest, but exempt from taxation, the effect of tax

exemption could be readily measured. Tables may be readily obtained showing the effect of the federal income tax, as it now exists, upon the yields of different kinds of securities bearing different rates. This will be discussed later under the subject "tax-exempt securities."

(b) *As Affecting Stock Dividends.* The income tax law of 1913 and the subsequent acts of 1916 and 1918 taxed stock dividends as income. In the year 1920 the United States Supreme Court in the case of *Macomber v. Eisner* held that stock dividends were merely reappportionments of principal and were not income. The act of 1924 following the decision in this case does not tax stock dividends.

(c) *As Affecting Foreign Government and Municipal Bonds.* Under the present income tax law all interest derived by citizens of the United States from foreign government and municipal bonds is taxable. Some foreign corporation bonds contain provisions for the payment of a normal tax to holders in the United States, and in such case where the bonds are payable in the United States the paying agent, located in this country, treats them much the same as corporation bonds in this country having a tax-free covenant. The lack of power of the United States Government to tax municipal bonds, which has been referred to in this discussion, has no bearing upon the bonds of foreign governments or municipalities.

(d) *Who Buys Tax-Exempt Securities?* It has been seen in this discussion that tax exemption may grow out of lack of power to tax on the one hand, or out of a contract contained in the securities themselves on the other hand. In determining who commonly buys tax-exempt securities, the status of the buyer and the kind of securities must be considered. Certain corporations are totally exempt from taxation under the federal income tax law and are thus in a position to purchase securities that are wholly or partly taxable to much greater advantage than purchasers who are subject to the tax. Corporations exempt by law from all

income taxes, such as mutual savings banks, fraternal orders, building and loan associations, and community organizations, can purchase securities without regard to the effect of the income tax except in the case of sale. If a corporation of this kind buys securities when the tax rates are at one figure and sells them when the tax rates are at another, the question of profit or loss may be materially affected by the capitalization of the tax in effect at the time of the sale. Corporations, whose income is taxable, can afford to buy all classes of government bonds on an equal basis. The old issues of government bonds including the Liberty 3½s are free of all federal income taxes. The subsequent outstanding issues of Liberty bonds and the Treasury certificates of indebtedness are subject only to the surtaxes. Inasmuch as the tax on the income of corporations under the present law is limited to 12½% and the corporation income is not subject to surtaxes, the corporation may hold these bonds entirely tax free. If a corporation has power to hold other corporation stocks, the income from such stocks is entirely tax free when received by the corporation, provided the corporation whose stock is owned pays an income tax in the United States. An individual or a fiduciary, subject to the payment of federal income taxes, is attracted to purchase tax-exempt securities in proportion to the volume of his income. The higher the rate of income tax the greater is the advantage of exemption. For instance, a single man with a taxable income of \$9,000 can purchase a 5% tax-exempt municipal bond to yield 5.21%. Another man with a taxable income of \$50,000 can buy the same bond to yield 6.58%. A man with an income of \$100,000 can buy the same bond to yield 8.77%. In other words, while each actually obtains 5% from the tax-exempt bond, the first man would have had to purchase a taxable bond bearing 5.21%; the second man, 6.58%; and the third man, 8.77% to obtain a net income of 5%. Consider that the same persons purchase taxable bonds bearing 5%. The man with the \$9,000 income would net 4.80%; the man

with the \$50,000 income would net 3.80%, and the man with the \$100,000 income would net 2.85% after paying income taxes. Dividend-paying stocks in the hands of individuals are not subject to the normal tax and therefore may be said, in common parlance, to be partially tax free. In the case of the purchase of stock earning 5% dividends, a man with a \$10,000 income would net 5%; a man with a \$50,000 income would net 4.10%, and a man with a \$100,000 income would net 3.15%. These illustrations will serve to make plain the effect of the income tax upon security yields.

(e) *Tax-Free Covenant Clause.* The so-called tax-free covenant bonds contain a clause by which the issuing corporation agrees to pay interest without deduction for any tax which the corporation is required by law to deduct or retain. The present law requires corporations issuing bonds of this class to withhold 2% of the interest paid. The owner, however, actually receives the full amount of interest due. This is accomplished by the debtor corporation paying to the owner of the bonds 98% of the interest, retaining for remittance to the government the 2% which it is required by law to withhold. Under the tax-free covenant, however, the corporation pays to the owner of the bond from its own funds a sum equal to the 2% withheld. In actual practice these operations take the form of a single transaction by which the holder receives 100% of the interest payable. Uninfluenced by other factors, the effect of the tax-free covenant under the capitalization theory would be as follows: If the owner of a 5% \$1,000 bond had to pay a normal income tax of 2%, he would receive an annual net return of \$49 instead of \$50. The result would be the fall of the bond's selling price to 98, which would net him about 5.10% annually, or 5% net after paying the tax.

5. STATE INCOME AND PERSONAL PROPERTY TAX LAWS

(a) *Illinois Situation.* The Illinois constitution does not admit a classification of property for taxation. It follows

that real estate and personal property are taxed at the same rate. The result is the usual one in states having no classification of taxes; that is that the greater part of the personal property escapes taxation. The tax rate for property located in the downtown section of Chicago for taxes payable for the year 1923 was 7.91% on the assessed valuation. This rate covers state, county, sanitary district, park district and city taxes. The Illinois law provides that property shall be assessed at 50% of its actual value. This would mean that downtown holders of securities in the City of Chicago, who declared them at full market value for taxation, would pay 3.955% on the actual value of their holdings. For instance, a man owning a 5% bond actually worth par at the market, would, if he declared it for taxation, have left after the payment of the tax an annual yield on this basis of taxation of 1.045%. To put it another way, he would be paying income tax of 79.1% on the income of such a bond. This is 33.1% higher than the rate a man with the highest possible income would have to pay under the federal income tax law. Such a law, on its face, is practically unenforceable because it either leads to evasion on the one hand, or drives taxable property out of the state on the other. Real estate, being immovable, is subjected to this high rate of tax and bears the bulk of the tax burden. States like Massachusetts and New York, which have adopted a 6% flat income tax rate on securities, present an entirely different situation. In that case the owner of a bond bearing 5% interest would pay a tax of $\frac{3}{10}$ of 1% on the principal annually. The majority of security holders consider this a fair tax and more readily comply with the law in these states. This results not only in a reasonable rate on securities, but in a lowering of real estate tax rates.

(b) *Pennsylvania 4-Mill Tax.* The so-called Pennsylvania 4-mill tax is one levied at the rate of $\frac{4}{10}$ of 1% upon the Pennsylvania owners of bonds based upon the valuation of the bonds. Some corporations, in issuing their securities,

provide that Pennsylvania bondholders, who are obliged to pay this tax, may have it refunded upon application to the corporation issuing the bonds. Connecticut and Maryland have somewhat similar taxes and some bond issues cover these state taxes as well. The owner of the bond obtains a refund once a year of such taxes paid by making application to the trustee under the bond issue, stating the amount of bonds owned, their valuation for tax purposes, and the amount of tax paid during the year.

6. ESTATE AND INHERITANCE TAXES

Nearly all of the states have inheritance taxes and the Federal Government has a federal estate tax which is, in effect, an inheritance tax. These state taxes are levied upon the right of succession to the property of a decedent. The federal estate tax, however, cannot be based upon the right of succession, which is a right derived not from the federal laws, but from the state laws, and is more in the nature of an excise tax. In assessing these taxes, the so-called yardstick theory of taxation is employed, and the value of the succession, or the inheritance, is measured by the amount of the property inherited. Some of the states have one-rate inheritance taxes, but most of them have graduated taxes. Inheritance taxes are all levied upon practically the same plan by which certain exemptions are first allowed and then the amount received by each legatee, or heir, is taxed at a rate which varies according to the amount received and the relationship to the decedent. Blood relations have the largest exemptions and the lowest rates of tax. Distant relations and strangers to the blood have the lowest exemptions and the highest rates of tax. Under most of the state laws, these taxes are based upon the separate inheritances. The federal inheritance tax is levied upon the entire estate irrespective of the number who inherit or their relationship to the decedent. This law permits a deduction of certain expenses and a fixed exemption

of \$50,000 is allowed in the case of each estate. Under the federal estate tax law, securities of all kinds are considered taxable even including government bonds and bonds issued under the authority of the states. The effect of an inheritance tax is solely upon the holdings at the time of death, or upon transfers of holdings made in contemplation of death. The rates and exemption features of the laws vary according to the tax policy of the various states.

The questions to be considered by an owner of securities are: (a) Is the tax levied upon the estate as a whole or upon the undivided shares received by the various legatees, or heirs? (b) Are character of the taxes and the amount of the rates equitably distributed? (c) Will the property be subjected to a tax in more than one state? The first two questions can be settled largely by the owner in his choice of the state in which to establish a legal residence. For instance, Florida, Alabama, Nevada, and the District of Columbia have no inheritance taxes at all, while Illinois and Wisconsin have the highest rates for larger estates. The main problem as affecting securities is one of duplication of taxes. For example, some of the states, like New Jersey, collect a tax upon all stock of corporations organized under the laws of that state irrespective of the residence of the decedent. This would mean that the estate of a resident of Illinois owning stocks in a New Jersey corporation would be obliged to pay an inheritance tax both in Illinois and New Jersey. Many of the other states have similar laws relating to stock of corporations organized under their own statutes. It is incumbent upon the owner of stocks, who desires to observe the effect of inheritance tax laws, to examine the provisions of the various state laws in this respect. Bonds and mortgages are usually taxed in the state in which the decedent was a resident at the time of his death and with some exceptions there is no duplication of inheritance taxes in respect to them.

Many questions have been raised in regard to the validity

of graduated inheritance taxes, but the courts have upheld them. Where a graduated inheritance tax is levied upon the estate as a whole, and not upon the legacy received, it is difficult to understand why a legatee receiving a bequest of \$5,000 from a \$1,000,000 estate should have to pay a larger inheritance tax than a legatee receiving \$5,000 from a \$100,000 estate. Of course, where the estate is large enough to pay the tax and leave the face amount of the legacies free, such discrimination does not take place. If, however, it is necessary to reduce the legacies by the amount of the tax, the result is inequitable.¹

SELF-TEST QUESTIONS

DIFFERENT KINDS OF TAXATION

1. Define property taxes and classify them. How do such taxes affect choice of bond investments?
2. List the kinds of securities taxes. How are securities valued for tax purposes? Are the bases of valuation fair or not?
3. Can securities taxes be passed on by the investor? Why or why not?
4. What are sales taxes? How do they affect one's choice of bond investments?
5. What are income taxes and what is the justification for the adoption of income as a basis for taxation?

VARIOUS TAXING BODIES

1. What is meant by the term "tax body"?
2. What are the principal tax bodies and where is the source of the power to tax given to each of these bodies?

TAX-EXEMPT SECURITIES

1. What security investments are tax exempt? From what taxes and to what extent are these securities exempt?
2. What is the constitutional basis for tax exemption of securities? Is it economically sound? Socially justifiable?

THE FEDERAL INCOME TAX LAW

1. Draw up an outline of the main provisions of the Federal

¹This lecture was delivered March 20, 1924. This date should be kept in mind in considering references to legislative acts.

income tax law. What parts of the law relate to security investments?

2. Take a concrete illustration with which you are familiar and show how taxation of bond interest affects the investor's choice of investments; the cost of funds to an industrial corporation.

3. At what point under the existing surtax rates does it pay a wealthy investor to purchase tax-exempt securities rather than taxable bonds?

4. Is the purchase of tax-exempt bonds the only means available to a rich man short of fraud, for escape from high surtaxes on income?

5. Is tax exemption of bonds a hindrance to business? How?

6. Why are stock dividends not taxable? Should they be?

7. How does the existing income tax law affect yields on foreign government bonds? Municipal bonds?

8. What is the tax-free covenant clause in a trust indenture securing a bond issue? How does it affect choice of bond investments? The cost of capital to corporations?

STATE INCOME AND PERSONAL PROPERTY TAX LAWS

1. How do state income taxes affect yields on various classes of bonds? Cost of funds to corporations?

2. How do personal property taxes affect bond yields? Cost of funds to the corporation?

ESTATE AND INHERITANCE TAXES

1. Define estate and inheritance taxes.

2. How do they affect bond yields?

3. How may the investor reduce these tax burdens or avoid them?

IX

GOVERNMENT BONDS

By C. F. CHILDS

President, C. F. Childs & Company, Incorporated

Essential basis of government. Taxation. National credit. United States Government financing during World War. Maximum war debt of United States Government. Foreign debts to United States Government. Colonial and Revolutionary War period borrowing. United States payment of debt to France. Relations of a nation's debts to its currency.

IN the early stages of civilization man sought protection from the forces of nature which he could not understand by petitioning his fetishes and idols to save him from harm. It was his fear and desire for safety that drove him to seek protection. He appealed to the deities and charms which he created and worshipped. Gradually he acquired the belief that protection from danger justified him in holding sacred the material or spiritual objects he thought were able to save him. That was the foundation of religion. This trait of human nature became characterized as faith. Faith means confidence; and when the people of the different nations of the world today unite in their desire to maintain the welfare of their homes and their country and support their government's undertakings, their faith in their country and their devotion to it becomes what we call patriotism. Without that innate spirit of fear, faith, confidence, and patriotism, and all the sacrifices they require, no nation can long exist. People must protect and hold in reverent respect that which safeguards their well-being and destiny. It is exactly upon that theory that a government bond is founded. The bond represents credit and nothing else, and that word "credit," literally translated, means belief, trust, confidence, and faith. We delegate to our constituted government offi-

cials full power to safeguard our national interests, and when such a government functions in accordance with the dictates of its leaders, it is the duty of every citizen to render that government full support by sacrificing his worldly goods and also his life if need be for the purpose of sustaining the government which protects and represents him.

The government's control, with the people's acquiescence, of all the resources, wealth, and productivity of the nation, coupled with the government's unlimited power of taxation, constitutes the economic vitality of the nation. The power of taxation effectively mobilizes the value of all wealth in support of any desired credit. A liberal application of taxation is the only method of financing every great national crisis. Submission to taxation and loyalty to the government justify confidence in any credit or loan which the government may ask for. The soul of a nation that conscientiously supports proper taxation is certainly capable of meeting any duty necessary to honor its debts. Patriotism assures the government that public support will safeguard all moral and financial obligations. Therefore, much depends on the record of past performances and the reputation of a nation for maintaining its credit untarnished. To borrow vast sums on credit requires character as well as reputation and good-will, even more than mere wealth and ability. Some nations have ample wealth but lack essential good-will and moral integrity.

THE BASIS OF NATIONAL CREDIT

A national loan should not be regarded in the same class with a state, municipal, or corporation bond, since the government debt supersedes all obligations of any minor political body or subdivision. Even the sacrifice of the credit or solvency of any municipality is of small importance when the financial standing and the honor of the sovereign state are at stake. In the case of a government, the faith and credit of the entire nation and all of its units and peo-

ples are pledged to honor its obligations, and taxes may be levied to support such pledges without regard to the local needs of any subordinate community or corporate body. A national loan is a veritable mortgage on the integrity, good faith, and taxable assets of the people. When a government loan ceases to be safe, then no other known security based upon property or wealth within that nation will have any dependable value. The default of a national obligation would be an absolute calamity to the entire commercial and financial structure of all the people, and the currency of such a nation usually becomes virtually worthless, especially with respect to business relations with other nations. International trade with its neighbors becomes demoralized, and the exchange rates instantly reflect the situation.

When a government issues a bond and makes a loan by borrowing money from its people, the people take a receipt from the government in the form of a bond for the money each individual advances. That bond continues to be an obligation which each citizen has a vital interest in helping his or her government meet and redeem at the time the bond falls due and becomes payable. That is the reason why all of us, who as citizens constitute an integral part of this nation, should stand ready to make our *pro rata* share of contributions in the form of taxes to defray our government's obligations.

When the United States entered the war against Germany, it was called upon to raise undreamed of sums with which to defray the cost of its military operations and also to advance credits to its associates abroad until it had equipped its army and navy sufficiently to take an active part in the conflict. It then commenced to marshal its forces and strength for the fulfilment of that purpose by mobilizing all of its available resources and assets so they would be available to meet all financial requirements. At that time the credit rating of the United States ranked foremost among all nations of the world. A conservative appraisal of the economic wealth of the United States was

between 250 and 300 billion dollars. Its annual national income was then estimated to be about 50 billion dollars. It was upon that foundation that the credit of the nation was established when the Treasury Department called upon the people for a loan of funds or subscriptions to government bonds. Congress authorized the Treasury to issue new obligations of unparalleled magnitude. The privilege was granted to issue up to 20 billion $4\frac{1}{4}\%$ long-term bonds, 10 billion short-term certificates as a maximum outstanding at any one time, 4 billion War Savings certificates, and to loan the Allies 10 billion dollars in the form of credits. The full privilege was not availed of.

MAXIMUM WAR DEBT OF THE GOVERNMENT

The maximum gross debt of the United States, as a result of loans it obtained from the people, reached a total of \$26,596,000,000 on August 31, 1919. After that date the debt was gradually redeemed and reduced until it stood on December 31, 1923, at about \$21,914,000,000. Few, if any, of those now living are likely to see that debt fully paid, as it will necessarily have to be refunded many times before it is possible to raise an offsetting amount of funds by taxation or other forms of revenue to extinguish it. The only time the United States was free of public debt was in 1835, when all obligations were paid in full. Soon thereafter new debts were incurred and every new war entered has added to the debt.

Assuming that the government pays a yearly rental at the rate of, say, $4\frac{1}{4}\%$ on the existing debt, the annual interest charge amounts to, roughly, \$930,780,000. That annual charge is called the service of the debt. It is notable that our national income is equivalent to about 53 times that annual interest requirement. Most investment bonds of industrial or business corporations, by comparison, show net income or earnings of only 2 or 3 times their interest charges, and furthermore, they have absolutely no sure

resources for revenue such as taxation, which characterizes the bonds of the government.

Before the United States entered the last war, its national debt was approximately a billion dollars. The war increased that debt considerably over 20 billion dollars. The per capita debt of the United States at the present writing is about \$199. Furthermore, the annual interest charge, when spread proportionately over the entire population throughout the country, amounts to about \$8.46 per capita per annum. At the end of the Civil War, the debt was proportionately heavier than it is today. At that time the debt was equivalent to about $10\frac{1}{2}\%$ of our national wealth, whereas at this writing our debt is nearer $7\frac{1}{3}\%$ of our estimated wealth. In consideration of this vast obligation of the government, it is fair to state that the relative indebtedness is commensurately much less in proportion to the population than the debts incurred for the same purpose by all of the allies abroad.

Contrasting the situation in Great Britain with that of the United States, our debt would have to be relatively five times larger than it is today before it would equal the debt burden which confronts the people of Great Britain as a result of her war endeavors, and the situation with respect to France indicates her war burden surpasses that of Great Britain.

In the joint efforts of all the allies to finance their necessities for war, most of them borrowed from each other by obtaining credits with which to purchase material in the different countries. Nearly all of them obtained such credits from the United States and most of them anticipated that they would be reimbursed in a large measure by the receipt of indemnities or reparations from Germany with which to repay their debts to each other. We have witnessed the failure and miscarriage of their anticipations. It now appears doubtful that Germany will ever be able or be willing to pay even a small fraction of the amount needed to liquidate those debts.

FOREIGN DEBTS TO THE UNITED STATES

There are 16 foreign nations (exclusive of Great Britain and the Government of Finland with whom debt settlement over a period of 60 years has been agreed upon) that now owe the United States \$5,970,000,000 plus accrued interest of over \$1,088,000,000, figured as of November 1, 1923. The total debt on that date which they owed the United States was over \$7,058,000,000. You will recall that when America entered the war it magnanimously announced publicly that it would supply the money until such time as it could train and equip forces to come to the allies' assistance. Few, if any, and not even Congressmen, gave any heed to what was spent, in order to help win the war. Therefore, it is but natural that the peoples of foreign countries whose courage was renewed and whose hopes were raised because Americans were coming to their assistance in supplying them with money with which to carry on the war should now feel a deep sense of disappointment when they are told that America did not actually contribute a single penny as a gift, but that every dollar of credit accorded them with which to buy food and clothing for their families and ammunition for their husbands and sons must be returned in cold American dollars with full interest exacted to date of return of the money. They say to themselves: "We gave millions of lives—fathers, husbands, and sons—while America advanced to us the money with which to buy from her the needed materials of war at virtually the highest prices and with the greatest resulting profit on the commodities she sold, that the world ever recorded. We of Europe cannot get back the fathers, husbands, and sons we have lost; nevertheless America demands the return of every dollar." Such sentiment prevails abroad, and if we were to change places with them, we might then be of a similar mind. Some day we may have reason to regret the position we have taken. Our children may some day need Europe's assistance, sympathy, and loans or credits.

It does seem proper, therefore, that we should be lenient at least and give ample time to those impoverished nations to repair damages at Germany's expense and readjust their domestic affairs before we press them for payment.

There is a pertinent historical fact which is not generally recalled, but which might be mentioned here. In 1774, two months before the Liberty Bell rang out defiance to Great Britain, when the Colonies decided to rebel and set up an independent Republic, the Government of France arranged with the Government of Spain to contribute 1,000,000 livres to the American insurgents, and France also suggested to Spain that she contribute an equal amount, which she promptly did, the loans being a commercial accommodation. These advances to America by those nations, for obvious political reasons, were made through an individual named Beaumarchais. There was some confusion among the American patriots as to whether the supplies were sold or given to them but apparently they were willing to take them either way. Finally the French Government informed our representatives that the supplies were sold to us by Beaumarchais and from that time forward there was no question as to the nature of the contribution. Secretary Hamilton, in Washington's first administration, nearly 20 years after the Continental Congress incurred its first foreign obligation, reported that the foreign debt at that time totaled nearly 11¾ million dollars, inclusive of interest arrears due mostly to France. In all, France loaned to America 18 million livres and France graciously remitted the arrears of interest on that loan up to 1782. France also agreed to bear the commissions and bank charges incident to the 10 million livre loan which was in effect borrowed from Holland by France for the account of the United States. Benjamin Franklin, in transmitting this contract to Congress, said, in part, "In reading the contract you will discover several fresh marks of the King's goodness to us equal to the value of near 2 million livres." Due to the condition of the finances of the United

States Government at that time, we did not promptly pay the instalments on the principal and it was not until 1815 that we finally settled our obligations to France, some of the debt being paid in the form of tobacco.

Therefore, since history records that the United States delayed her debt payment to France nearly 40 years, we can well afford to show a respectful patience and not press France to pay her present debt to us while her economic conditions and her depreciated currency interfere with her doing so promptly. If this reference to our own record does not suffice to modify our insistence, let us remember that at the close of our Revolutionary War, our currency was so depreciated that it gave rise to the expression, "It is not worth a Continental." In those days of the American Revolution a pound of sugar brought \$10 in American money and a barrel of flour \$1,000. Then the government's credit was on a nominal 12% basis. Therefore, let us not speak too slightly of the depreciated money of some of our associates who played their full part and played it well during the recent World War in which we were also involved.

RELATION OF A NATION'S DEBT TO ITS CURRENCY

As mentioned before, the bonds of a government and the value of its currency are naturally interrelated, and when the debt of a nation (which the bonds represent) is repudiated, there is little reason for expecting its currency to be worth more than the paper it is printed on. The German Government has established a record in national finance which stands unique in the history of the world. Since the war, Germany has debased her currency and dishonored her credit without compunction or apparent regret. She resorted to the expediency of printing new money for the purpose of financing her national needs at the expense of her solvency and that of her own people whose money she debauched. She knew full well that such inflation would destroy the value of her currency and ulti-

mately impoverish if not ruin the people who accepted it. Nevertheless, she is at this writing still continuing the practice and as recently as December, 1923, that present-day Republic has a funded indebtedness of 64 billion marks, which is worth in gold, at the present valuation of the mark, only $1\frac{1}{2}$ cents.

This reference to a nation's currency is strikingly similar to a custom practiced by the Chinese. The merchants were most particular to make certain that every silver dollar they handled contained the metal that it was supposed to represent. Consequently, tradesmen, shopkeepers, and bankers who received a dollar, promptly subjected it to a stroke of a small-headed hammer, and if the sharp point of the hammer went completely through the dollar, they would reject it in the knowledge that some previous holder of that dollar had skilfully cut it in two and taken out some good metal and substituted a core of lead. The writer recalls one experience where he went to a bank and obtained several packages of wrapped silver dollars bearing the bank's seal. He wanted the money for the purpose of making a trip into the interior of the country. Upon his return from that trip he went to the same bank and asked the cashier to take back two of the packages which he had not used and which still bore the original seals of that bank. The cashier promptly broke open the packages and subjected each dollar to the hammer test and rejected nine as being spurious out of a total of 50. When the cashier was told that the money was being returned in the same packages which he had previously issued he replied that the coins should have been tested before being accepted from him. He couldn't be responsible for another's carelessness, and, therefore, it was not his loss. Perhaps if the Germans had been as solicitous and as careful as the Chinese were to protect the value of their money, America today would not be the indirect victim of its allies' dilemma regarding reparations and indemnity collections.

You know how the government borrowed the money to

carry on the war. You remember how the Liberty loans were offered for sale and how patriotically they were subscribed for by the banks, business houses, and public at large. No section of the country was overlooked and the appeal for subscriptions was carried into every household throughout the length and breadth of the land. The Investment Bankers Association of America, with the cooperation of the Federal Reserve banks, designated some individual to organize every state in the Union, and under that individual's supervision other men were appointed to select and supervise the men who organized volunteer committees to solicit subscriptions in every county, city, town, and hamlet. Not one spot was neglected. As often as each recurring new loan was announced, just as often the result showed a vast oversubscription. Every loan was sold at a price of par net to the government. Every subscriber and purchaser of those securities knows that he will receive back his money with accrued interest at the date those bonds mature; and, in the meantime, he can sell them in the market any day if he wishes to receive his money back sooner. Government bonds are the only securities which are so marketable that they can be "sold on a Sunday." There were allotted \$21,435,370,600 par value of different Liberty and Victory loans up to October 31, 1920, exclusive of notes, certificates, and War Savings securities, and since that time, with but one exception, all the refunding issues have been in the form of short-term Treasury notes or certificates. The problems now faced by the government are similar to those of any business organization. The Treasury must find the money with which to pay off these loans and finance its requirements in the same manner as the Treasurer of any business corporation. Out of taxes which are levied annually for governmental purposes, there is appropriated approximately 300 million dollars each year as a sinking fund for the purpose of gradually reducing the debt by buying bonds in the open market and canceling them. It is estimated that fully 25 years will be required

to cancel the major portion of the debt in that manner and the balance of the debt can be paid when our allies are able to repay their obligations to us. To reduce the annual interest on the public debt offers just the same problem as reducing the annual interest on a mortgage on a house. It can be accomplished by paying off part of the mortgage or trying to get a lower rate of interest on the balance due. Both methods are employed in the handling of our national interest charge.

The debt which our government incurred for the benefit of the American people and the world at large, actuated as America was by the highest ideals at that time, was created within a period of two years, but it would be a rash guess for any of us to predict when that debt can or will be paid in full.¹

SELF-TEST QUESTIONS

UNITED STATES GOVERNMENT BONDS

1. What is the ultimate basis of the investment strength of government bonds? The direct basis?
2. Why do nations seldom default on external bonds? Is it less desirous that internal loans be paid promptly?
3. Why do governments need money? Why don't they raise money by taxation rather than by bond issues? Are there other ways of mobilizing industrial energy for war purposes?
4. How was it possible to raise 26 billion dollars by bond issues when our national income was but 50 billion?
5. Why will it take so long to extinguish our national debt if our national income is 50 billion a year?
6. How does our debt compare with England's? Germany's? France's? Account for the difference.
7. Do you favor cancelation of foreign debts due the United States? Would such cancelation imperil the investment standing of "United States bonds"?
8. Is there any precedent for cancelation?

FOREIGN GOVERNMENT BONDS

1. What is the security of French bonds? German bonds?

¹This lecture was delivered March 27, 1924.

English consols? Do they sell to yield different returns? Explain such differences.

2. What does a nation's currency have to do with the investment status of its bonds?

3. What factors determine the investment status of foreign government bonds and why?

X

STATE AND MUNICIPAL BONDS

By CHARLES L. STACY

Stevenson, Perry, Stacy & Company

Popular and correct usages of term "municipal bond." Varying factors in municipal bonds. Taxing subdivisions. Purpose of bond issue. History of state bonds. Federal debt assumption. Restrictions in debt-creating. What should determine the maturity of a bond? Bonds of various political subdivisions. County bonds. Municipal bonds. Bonds of tax districts. Special assessment bonds. Work of Investment Bankers Association of America. Tax-exemption features.

THE term "municipal bond" is quite generally, if not correctly, applied to any bond issued by a state or a political subdivision of a state. A more accurate usage would be to refer only to bonds of cities, towns, and villages when using the term "municipal bonds," and refer respectively to the other bonds of a state or its taxing subdivisions as state bonds, county bonds, township bonds, school district bonds, road district bonds, sanitary district bonds, special assessment district bonds, and so on.

In this discussion, however, for the sake of brevity, the term "municipal bonds" will be used in its general usage, but all such references will apply to bonds that are secured by the full taxing power of the political subdivision that issues the bonds. Such bonds are payable by an ad valorem tax; that is, a tax levied on all property within the state or within the community that issues the bonds. The term "municipal bonds" will not apply in this discussion to those special assessment district bonds which are payable only by a special assessment against the property benefited and are not payable from the general taxes of the community that issues the bonds. Some special assessment bonds are payable

from the general taxes of the community, should the special assessment against the property benefited prove inadequate. But, to avoid possible confusion, they will not be included in the general term "municipal bonds."

A municipal bond is a promissory note plus certain recitals. Any bond is a promissory note, plus. Bonds have been held to have all the advantages of the ordinary promissory note and, in addition, certain advantages arising from the recitals in the bonds. There may be, however, little or no practical difference between a municipal bond and a municipal note, sometimes called a certificate of indebtedness. It is a somewhat general custom to issue municipal notes or certificates of indebtedness for short periods, usually in anticipation of the next tax payment, and to issue bonds for longer periods. But this is not wholly true, for some taxing subdivisions can issue either notes or bonds for the same purpose and the same duration. Nor in considering municipal bonds can you make the common distinction between a note and a bond; that is, that a bond is made under a seal and a note is not. Some Ohio school districts have seals, but the law does not require them to use the seal on their bonds. Hence, many Ohio school-district bonds are issued without seals.

VARYING FACTORS IN MUNICIPAL BONDS

The reader will have noticed by this time that this discussion bristles with general terms and exceptions. This is necessary to avoid inaccuracies. We must appreciate, in any consideration of the general subject of municipal bonds, that we are dealing with instruments created under the authority of the different constitutions of the states and the thousands of varied statutory regulations of those states.

Further, the widely different economic, social, and other conditions in the thousands of taxing subdivisions within the 48 states have an important bearing and must be considered. There are 3,037 counties and many thousands of municipi-

palities, townships, school and road districts, and other regular and special subdivisions which have the authority to contract debts, issue bonds, and levy taxes to pay their obligations. Naturally, the scope and limitations of this authority vary greatly, and if it were not for the fact that the municipal bond business has been developed so broadly and well, a large number of cities, counties, school districts, and other taxing subdivisions would have a very narrow market for their bonds and would have to pay much higher rates of interest. It is the business of the municipal bond dealer to know all these exceptions and widely varying factors touching the legality, the safety, and the desirability of municipal bond issues.

These factors are mentioned at some length so that the true situation may be realized. For a simple example, the term "township bond" cannot be correctly applied to the equivalent bond in every state. That would be correct in Illinois, but not in Wisconsin or New York. In those states a township is called a town. In Mississippi the subdivision that is analogous to an Illinois township is called a beat. But when a Mississippi beat issues bonds, they are not called beat bonds. They are called "supervisors' district" bonds. In Texas the township is called a precinct, and in Wyoming it is called a common district.

TAXING SUBDIVISIONS

By a taxing subdivision is meant any city, village, town, county, township, district or other political subdivision of the state that has the power to levy taxes. This taxing power is the security behind municipal bonds, for municipal bonds are not, generally speaking, secured by a pledge of property. There is an exception to the foregoing in several New England states, where the holder of a municipal bond may, after obtaining a writ from the court, seize the property of any or all the inhabitants. At various times states have issued bonds against certain stocks or other property,

but, generally speaking, the security behind the state or municipal bond is a pledge of the full faith and credit of the state or community issuing the bonds and the power of the state or community to levy taxes to pay the bonds.

This is a very potent form of security. The holder of a real estate mortgage may have most excellent security, but the community's claim for taxes comes against the mortgaged property before the claim of a mortgage holder. Thus the municipal bond, legally issued, has a prior claim. The state or taxing subdivision not only has the power to tax all the property within its borders to pay its bonds, but it can seize that property if taxes are not paid. Those are the reasons why properly issued municipal bonds are among the safest and most desirable forms of securities.

THE PURPOSE OF ISSUE

Before taking up state bonds in some detail, two vital essentials in all municipal bonds should be emphasized. They are, first, the purpose for which the bonds are issued; second, the authority of the state or taxing subdivision to create the debt and levy taxes for its payment. The history of public financing in this country has been that where bonds have been issued for doubtful, uneconomic, speculative, sentimental, or other unsound purposes there has been the greatest number of defaults and from such unsound issues have come great hardships for the people. Perhaps the purpose for which bonds are issued is basically more important than is the legality of the bonds. This might be true because an issuing body, especially a state, under the temporary delusion of a wave of public sentiment or hysteria, might issue wholly legal and binding bonds for purposes that would be found unsound, chimerical, and economically unjustifiable when the wave of public sentiment receded. On the other hand, it is almost impossible for an illegal municipal bond to get by the recognized and reliable municipal bond dealer.

HISTORY OF STATE BONDS

The history of state debts in this country really begins in 1790, when Congress, in one of its first acts, authorized the Federal Government to assume the debts the 13 original states had contracted in carrying on the Revolutionary War. To be sure, the states as colonies had emitted bills of credit which they recognized in various, and usually clumsy, financial arrangements. In assuming the state's war debts it was argued that the Federal Government would greatly solidify the new Union of States. At that time the states were extremely jealous of their rights as sovereign states and anxious to prevent their identity as such from being wholly absorbed by the Union.

This attitude toward states' rights gave birth to the Eleventh Amendment to the Federal Constitution in 1798, when it became a part of the organic law of the nation, that a sovereign state cannot be sued without its consent by any one except another sovereign state. Thus a state can refuse to pay its bonds or other debts and the bondholders or other creditors have no recourse against it—they cannot sue the state unless the state gives them permission to sue it.

State debt history was somewhat uneventful until the late twenties of the nineteenth century. Then came a period of inflation and wild speculation that reached its height between 1830 and 1837. This period corresponds to the beginning of the industrial era. The steam engine and the cotton gin had been invented. It was a time of boundless optimism and extreme speculation. The states lent their credit recklessly for private enterprises and issued bonds to build railroads, highways, and canals and to provide capital for state banks. The colonies had lent their credit to private enterprises. The states, young and inexperienced, overeager and overconfident in their new powers, failed to realize that man-made laws cannot override economic laws. The states bet their credit on speculation and private undertakings. They lacked experience.

A PERIOD OF DEFAULT

The inevitable result was the panic of 1837. A number of the state banks failed or suspended. A number of states defaulted, repudiated, or compromised their bond issues. These defaults, repudiations, and compromises did not come all at once, but they were a direct aftermath of the period of wild speculation and inflation. Times were bitterly hard. Money was almost impossible to obtain. Looking back at this period we may well wonder at the high sense of honor most of the states maintained toward their obligations and that there were not more defaults. The states had contracted debts far in excess of the combined total of the amount the Federal Government had expended in the Revolutionary War and for the Louisiana and Florida purchases. It must be remembered that the states could have repudiated their debts, that the sense of state sovereignty was strong and experience in public financing and the states' proper economic position very meager.

So great was the stress following the bursting of the bubble in 1837 that Illinois, Pennsylvania, and Maryland defaulted interest payments, and Ohio and New York maintained their payments only under severe difficulties. Subsequently Illinois, Pennsylvania, and Maryland fulfilled their obligations to their bondholders.

FEDERAL DEBT ASSUMPTION AGAIN PROPOSED

In the period of reconstruction that followed, state financing got on to a firmer footing. But before it worked its way out there was considerable agitation for the Federal Government again to assume the state debts. A bill to that effect was introduced in Congress. Fortunately, the measure was not adopted. It was argued that if the Federal Government continually got the states out of trouble the states would continually get into trouble. In one form or another this unsound doctrine of the Federal Govern-

ment's assuming state obligations or expenses is revived in almost every decade by persons who are ignorant or unmindful of the lessons of history. Up to the time of the Civil War there was a slow and gradual improvement, and many of the states reduced their indebtedness.

After the Civil War certain of the southern states defaulted, compromised, or repudiated their bonds. These repudiations, defaults, and compromises do not include debts contracted by southern states in carrying on the Civil War. The Fourteenth Amendment to the Federal Constitution forbids a state to assume or pay a debt contracted in support of rebellion against the Union. Most of these defaults cover bonds issued for railroad guaranties and state bank aid. In fact, the report of 1921 of the Council of the Corporation of Foreign Bondholders, London, England, shows eight southern states still in default on these old bonds and it is significant that in at least seven of these eight defaults the bonds had been issued for railroad and bank aid.

The Civil War caused these southern state defaults. Commerce and industry had been demoralized by the conflict. Valuable lives and property were destroyed and, in addition, a huge property value in slaves wiped out by the Emancipation Proclamation. This condition was aggravated by the advent of carpet-baggers and other undesirables who controlled the governments of a number of southern states in the first years following the war. Hence, they exercised a sovereign state's prerogative of repudiating its honest obligations. However great would have been the sacrifice to have honored their debts, it would have been a great saving in actual money for the southern states to have paid their bonds. Ever since those states defaulted they have paid higher rates of interest than have states that have no record of repudiation, default, or compromise against them.

The name of any defaulting or repudiating state has not been mentioned here because conditions are wholly changed

and the factors that caused defaults are not at all considerable elements today. For more than 30 years there has not been a state bond default, except the temporary, so-called default of West Virginia, in the controversy between that state and Virginia as to the portion of the old Virginia debt that the new state of West Virginia should assume. Twenty-eight of our states have clear records as to defaults and repudiations. Moreover, many years of experience have given a much superior understanding of public finance. Rarely now would a state issue bonds for an unsound purpose. Still more rarely, if at all, would a state commit the costly error of repudiating a debt. Hence, conditions are wholly different than they were during the inflation period at the beginning of the industrial era and in the period following the Civil War. The South is receiving and should continue to receive better credit.

Repudiation and defaults are like murder. They cannot be concealed. If the reader wishes to know the names of states that have defaulted, compromised, or repudiated their debts he can find them fully set down in numerous records. They are all well known, and always they rise to plague the state or community that has defaulted, compromised, or repudiated its debts. The point the author wishes to emphasize, however, is that it must be remembered that the financial experiences of the young states and the subsequent defaults all have taught great lessons in how to make sound public securities. Past generations made and paid for many mistakes. We are heirs to all that. Today state bonds justly deserve their place as being among the safest and most desirable investment securities.

By the time of the World War it is a notable fact that most of the states had placed provisions in their constitutions prescribing or restricting purposes for which states might issue bonds. Most of these provisions were very conservative. Three states, however, have no such constitutional provisions. They are Connecticut, Vermont, and New Hampshire. But they have such an excellent record

that they enjoy the highest credit. These constitutional provisions generally forbade the state to lend its credit to private enterprises or to political subdivisions. Generally, they authorized the state to issue bonds to suppress riots, insurrections, or epidemics and to repel invasions. States usually have the right to borrow to meet reasonable deficiencies and for refunding purposes. Prior to the World War many states could not issue highway bonds. New York and California and a few others were exceptions to this rule. Following the war a number of states amended their constitutions to permit the issuing of highway bonds and soldier bonus bonds. The State of Illinois authorized \$55,000,000 of soldier bonus bonds and \$60,000,000 of highway bonds, of which \$40,120,000 and \$42,000,000, respectively, have been issued to date. At this writing the state's funded debt is \$62,137,500. Before the World War the funded debt of the state of Illinois was \$17,500, which amount was for bonds that matured in 1878 and which have never been presented for payment.

RESTRICTIONS ON DEBT-CREATING

In addition to restricting public debts by specifying the purposes for which debts may be created, the states generally specify, either constitutionally or by statute, a further restriction in the form of a debt limit or a tax rate limit, or both. At first glance these two terms may seem confusing. A debt limit restricts the creating of a debt in excess of a certain percentage of the assessed valuation. Thus a community with a 3% debt limit could not incur debt beyond 3% of the assessed valuation of all the property in the community. The tax rate limit prohibits the levying of taxes in excess of a certain percentage of the assessed valuation.

There is a very important distinction between debt limits and tax rate limits. Most of the states specify a debt limit, and a conservative debt limit is essential to sound financing. Capable public officials, investors, and municipal bond deal-

ers are equally desirous of seeing conservative debt limits established and maintained. A conservative debt limit not only protects the taxpayer against public extravagance and heavy tax burdens, but it makes for sounder and more desirable bonds. In fact, the debt limit is more effective and sounder than is the tax rate limit. This can best be explained by citing a hypothetical case. Suppose a city has a 5% debt limit. It cannot legally go beyond that limit. If it inadvertently or purposely tries to go beyond that limit, the bond dealers will discover it and refuse to buy the bonds because they would not be a legal obligation. But suppose the city issues bonds entirely within its debt limit and incurs indebtedness totaling 4% of its assessed valuation. Such bonds are legal. And suppose the state has also provided a 1% tax limit, for municipalities within the state. Thus the city can contract a 4% debt, or a 5% debt, but because of the 1% tax rate limit it cannot collect enough tax money to pay its just and legal debts.

By all means there should be a conservative debt limit, to protect the taxpayers and also to protect the credit of the state. But where there is a debt limit and bonds are issued within that limit, then there should be no restricting tax rate limit to prevent the state or taxing subdivision from paying its obligations. The community should have unlimited taxing power to pay its debts.

Alabama is a flagrant example of a state with a debt limit and with a tax rate limit that frequently has prevented Alabama communities from paying just debts they were willing and able to pay. As a result, Alabama has a number of municipal bond defaults to its discredit. The state generally has to pay higher interest rates on bonds issued by its taxing subdivisions. Many large municipal bond dealers will not handle Alabama bonds, and a number of life insurance companies and fraternal orders, which are large buyers of municipal bonds, will not buy certain Alabama bonds.

As a bond issue serves a general public good, so is it

sounder and more desirable. Taxes are levied ostensibly for the general good of the public, in conducting its governmental enterprises and in providing certain necessities and conveniences such as highways, water-works, schools, flood protection, sanitation, parks, hospitals, court-houses, and other essentials. As the public gets value received for its taxes, so is a continuation of revenue assured. Taxes are not always available in sufficient amounts to build schools, bridges, and court-houses or to construct water-works, sewers, highways, and other public improvements. It would be burdensome, if not impossible, to collect revenue for such improvements all at once or within a short time. So the state or community issues bonds to be paid off over a long period.

WHAT SHOULD DETERMINE THE MATURITY OF A BOND

The periods of maturities of bond issues vary in different states and with different classes of bond issues, but it has come to be accepted as an approved principle that the life of a bond issue should not extend beyond the life of the improvement for which the bonds are issued. Thus the maturity of a bond issue for a water-works might well be for 30 years or longer. A bond issue for resurfacing roads might properly run 3 or 5 years, while a bond issue for constructing a road, that is, establishing grades, building bridges and culverts, and putting in other improvements that would remain many years after the surfacing had disappeared, might well run for a longer period.

Construction of highways forms the largest single purpose for state bond issues. Other purposes are schools, soldiers' compensation, public buildings, public service enterprises, parks and reservations, funding and refunding. Funding operations, where the bond is to pay for permanent public improvements, may be the basis for a safe and desirable bond issue; but where a funding operation is to supply money for current operations or expenses, or to make up

deficits, or because of poor management of public affairs, in principle at least, it is not a sound basis for a bond issue. Taxes should, at all times, be sufficient to meet operating expenses. In many states it is mandatory to levy and collect taxes sufficient to meet bonds at maturity and there is not any authority for the refunding of maturing bond issues. Occasionally dealers have offered for their consideration a refunding bond; in such cases they are very careful to ascertain the necessity for the refunding operation. The investor has become educated to be very critical when offered a refunding bond for the investment of his funds.

Current debts of states and their political subdivisions should be paid by current revenues or by short-time notes or warrants issued in anticipation of forthcoming revenues. A state's current indebtedness, however, should be weighed in considering the soundness of its bonds. Other important considerations are the assessed valuation; the population, its character as to race, illiteracy, and rate of increase in population; the per capita debt; the resources, wealth, transportation, location, and general economic condition of the state.

In considering the assessed valuation of a state or a community it should be kept in mind that the relation of the true value to the assessed valuation varies in different states. Some states assess on a valuation of 30%; others on a valuation of 40% or 50%, and so on. Still others assess on one valuation on real estate and on another valuation on personal property. Hence, without considering the differences in percentages of assessed valuations we might erroneously conclude that a state with an assessed valuation of 30% of the true valuation was in an inferior credit position to a state with an assessed valuation of 80%. However, assessed valuations, and not true valuations, are the basis on which taxes are levied, and tax levies supply the money to pay bond interest and principal. Also, two of the states, New York and Massachusetts, among the states having the greatest public debts, justly enjoy a high credit standing.

BONDS OF VARIOUS POLITICAL SUBDIVISIONS

Bonds issued by counties, cities, towns, villages, schools, road districts, and other taxing subdivisions differ from state bonds in several respects, the most important of which is the fact the city, county, school district, or other subdivision can be sued. When the bonds are legally issued, the bondholder can bring mandamus proceedings and compel the taxing subdivisions to levy taxes up to the prescribed limit on all property within the subdivision to pay interest and principal. The bonds are a first lien on the revenues of the taxing subdivision in almost all of the states.

The authority of a municipality or other taxing subdivision to contract debts is defined in the state constitution or statutes or by both constitutional and statutory provisions. The purpose for which the bonds may be issued, the amount of debt that a taxing subdivision may incur in proportion to its assessed valuation, and the amount of taxes it may levy are usually specified either by the constitution or by statutes.

In considering a municipal or county bond issue the debt statement of the community should contain the total assessed valuation and the total of the floating and funded debt. From this total the amount of the general sinking fund is subtracted and usually the amount of the water-works debt or the debt of any other self-supporting, community-owned, public utility. This gives the net debt of the community. Other items in the debt statement are the net debt per capita, the percentage of net debt to the assessed valuation, and the population.

The experienced bond dealer carefully considers the debt history of the community. He compares the community's current debt statement with other periods; the amount of revenues from property taxes, licenses, and other sources; the cost of operating the community government; the tax burden; and its general conditions. Every contingency is anticipated as far as is possible. A comparison of the com-

munity's population at different periods might show a mushroom and unstable growth which would not make the community's bonds as desirable as those of an older, more stable community.

Another consideration that must be kept in mind is that taxing subdivisions may overlap. Thus, in Chicago are the municipality, the park districts, and the sanitary district, all with the power to issue bonds and levy taxes. To get at the true condition, the net debt statement of all the taxing subdivisions must be considered and, in addition, their part in the obligations of Cook County, in which Chicago is situated.

COUNTY BONDS

The administration of the county is usually composed of a board of commissioners, an auditor, and a treasurer, or equivalent officials. In most states the administration is limited in its authority to issue bonds unless authorized by a vote of the qualified electors. The purposes for which county bonds may be issued are numerous, including court-houses, jails, schools, highways, drainage, and sewers. After the canvass of an election shows authority for the issuance of bonds, it is then the duty of the commissioners, or equivalent authorities, to pass necessary resolutions providing for the issuance of the bonds and a sufficient tax levy to pay the interest on the obligation and the principal at maturity.

MUNICIPAL BONDS

The administration of a municipality is usually composed of a mayor, city auditor, city treasurer, and common council, except in municipalities where there is the commission form of government. The statutes usually delegate authority to the city council or to other specified officers to issue bonds up to a limited percentage of the assessed valuation, without ratification by the qualified voters of the city. In the case of Ohio, the city council may issue in any year

bonds equivalent to 1% of the assessed valuation, and a maximum of $2\frac{1}{2}\%$, without an election. Anything in excess must be submitted to the voters for ratification. When the bonds have been authorized and sold, it is then the duty of the sinking fund commission to keep an accurate record of all bonded indebtedness and prepare annually a budget setting forth the amount of money to be raised to pay the interest on the bonds and to provide a sinking fund for retiring the bonds at maturity.

The foregoing briefly describes the "term bond," in contra-distinction to the "serial bond," which is growing in popularity. The serial bond provides for the maturing of a certain amount of a bond issue every year. The term bond provides for a sinking fund into which a certain sum is placed each year and which is calculated to be sufficient to pay off the entire issue when the issue matures. The sinking fund is supposed to be invested and not to remain idle, and it is in this respect that the serial bond is said to have an advantage over the term bonds. Sinking funds may be badly invested or improperly managed and thus cause loss. But where a certain number of bonds mature every year, the money that would otherwise go into a sinking fund, if the bonds were term bonds, is used to retire the maturing bonds and thus stop interest payments.

BONDS OF TAX DISTRICTS

There are so many different classes of districts and different administrations that it would be impractical to cover all of them fully in a discussion of this length. The most important district bond is the school district, which is usually administered by a board of education composed of three or more members. The same restrictions in issuing school bonds prevail as in the case of municipal issues. About the same machinery is set up for their issuance and payment. They are usually executed by the president and the clerk of the board.

Next in order might be taken the road district. In addition to the county highways—which are constructed by the county and the expense payable by taxes levied against all the property in the county—township and cross-roads are necessary and it is customary to pay for such construction either through the issuance of township bonds or road district bonds. Townships are established subdivisions and are administered by township trustees, or their equivalent, who are elected, as are county officers. In those states which provide for such roads by road district obligations, it is necessary in organizing such a district to have the county surveyor mark out the boundaries of the district, and the resident qualified voters of the district vote on the question of organizing the district and the election of officers of the district who are usually termed “road commissioners” who in turn elect the chairman and clerk. The laws in most cases provide that the question of issuing bonds of the district for the construction of roads must be submitted to the qualified voters.

As previously stated, it would be impossible to cover the machinery for the organization in the issuance of bonds of drainage districts, water improvement districts, levee districts, paving districts, irrigation districts, reservoir, and so forth. The procedure, however, may be said to be similar in most cases.

SPECIAL ASSESSMENT BONDS

There are two general classes of taxing subdivision bonds, (1) the general obligation of the issuing body, (2) the special assessment obligation payable from taxes against the property benefited.

The general obligation bond is payable from a direct *ad valorem* tax against all of the taxable property in the subdivision and in the case of delinquencies it is the duty of the authorized officers to impose an additional tax, if necessary, to take care of such delinquencies. Therefore,

the chances for default in the case of the general obligation bond are very remote. The taxing power and the full faith and credit of the entire community are behind the general obligation bond and are the security for its payment.

The special assessment bond is payable from assessments levied against the property according to the adjudicated benefits, and where the taxpayer has paid his assessment in full, he cannot be called upon for any additional assessment to take care of delinquencies of others. It is customary, however, in special assessment districts, to spread a levy in excess of the actual amount necessary to meet the obligation, thereby providing a reserve to take care of such delinquencies. Usually a margin of 10% is considered safe. There have been cases, however, where delinquencies have been far in excess of 10% and defaults have resulted. In choosing a general obligation bond, the purchaser has only to consider the ability of the community as a whole to pay. It is quite different, however, in the case of the special assessment bond. It is then necessary to check very carefully on each parcel assessed and the character of the taxpayer. Too much caution cannot be exercised in purchasing a special assessment bond.

To illustrate the reasons for extreme care in considering special assessment bonds, let us take, for example, a very small, hypothetical special assessment district against which bonds have been issued to pay for certain improvements in the district. We will say that 60% of the property is owned by four persons and the remaining 40% of the property is owned by one person. The four who own 60% of the property pay their proportion of the special assessment levy, but the fifth person, who owns 40% of the property, refuses to pay. Sixty per cent of the bond issue is paid, and to pay the remaining 40% the property of the dissenting person is seized and sold under order of court. As might easily be possible, the 40% area seized might not bring enough to pay for the 40% of the bonds in default and thus the bondholders would lose.

WORK OF THE INVESTMENT BANKERS ASSOCIATION
OF AMERICA

As mentioned before, public finance in this country has gone through a wonderful stage of improvement. We can now profit in sound and equitable public financing by a great deal that has gone before since the United States became a nation. One of the greater forces in furthering sound public finance has been the recognized, reputable dealers in municipal bonds, and within this force the Investment Bankers Association of America has performed an invaluable service in furthering uniform laws and practices in the issuing and selling of municipal bonds. Just as our Federal Government consists of a system of balances and checks, so bond dealers and the Investment Bankers Association of America represent a balance and a check for the sounder conduct of public financing.

THE TAX-EXEMPTION FEATURE

Municipal bonds are exempt from all federal taxes, except inheritance taxes. That characteristic has made them popular since 1917 with persons of large incomes on whom the high income taxes weigh heavily and who are compelled to invest in tax-exempt securities. This situation has resulted in a great deal of criticism of tax-exempt bonds. Much of this criticism is just and much of it is unjust. The buyer of a tax-exempt bond pays a higher price for it than for a sound bond of private enterprise. In so doing he automatically pays a part of his taxes, and, further, he pays them in advance. He enables the state or other taxing subdivision to borrow money more cheaply and to some extent he pays for whatever of tax-exemption he receives.

During the war the issuing of municipal bonds was greatly restricted. Financing was subordinated to the government's war needs. The National Commission on Capital Issues restricted municipal bonds very largely to educational

and health purposes. When the war ended, municipalities and other taxing subdivisions were very much behind in their building, just as there was a shortage in dwellings. Communities had to issue bonds in larger amounts to make up for the years when little improvement or necessary extensions of public necessities and conveniences could be made. In other words, communities had to catch up in constructing public improvements just as they have had to catch up in building homes. For that reason much criticism that has been directed at public officers because of the unusually large amount of municipal bond issues since the war is partly unjust. I must admit that I think a number of bond issues have not been well advised, but at the same time we must take into consideration the fact that large bond issues were needed. It is significant that in 1920 the Investment Bankers Association of America issued a warning against too great expansion of public credit and that the association and the recognized, reputable bond-houses have worked continually to prevent such expansion.¹

SELF-TEST QUESTIONS

GENERAL

1. Define municipal bonds.
2. Define a taxing subdivision. What is the relation of this political unit to the security of municipal bonds?
3. What are the "two vital essentials" in all municipal bonds? Why are they called "vital essentials"? Which of the two is the more important and why?

HISTORY OF STATE BONDS

1. How does the Fourteenth Amendment to the United States Constitution affect security of state bonds? Why was it passed?
2. What effect did the coming in of the industrial era have upon the amount of bond issues sold by the states? Upon the security of state bonds?
3. Why and how did "certain southern states" default, compromise or repudiate their bonds? Was repudiation economical for them, in the long run? Why or why not?

¹This lecture was delivered April 4, 1924.

4. For what purposes may states issue bonds today? For what purposes are they usually prohibited from issuing bonds?

RESTRICTIONS ON CREATING STATE DEBT

1. Distinguish between "debt limit" and "tax rate limit." Which is the more important to the investor and why?

2. Do you favor the stipulation of both a tax rate and a debt limit? Why or why not?

3. What is the maximum desirable ratio of net debt to assessed valuation?

4. How would you calculate "net debt"?

5. What factors should determine the maturity of a bond? Why?

6. What other factors should be weighed in analyzing a state bond?

BONDS OF POLITICAL SUBDIVISIONS

1. How do bonds issued by taxing subdivisions differ from state bonds?

2. Where does the political subdivision of a state get its taxing power?

3. What limits are usually placed upon creation of debt by the political subdivision?

4. What factors should be considered in analyzing bonds of political subdivisions and why?

5. In what way is the serial bond better for investment purposes than the sinking-fund bond? Inferior?

SPECIAL ASSESSMENT BONDS

1. Distinguish between general obligations of political subdivisions and special assessment bonds.

2. How is the risk of assessment delinquencies met?

3. What factors should be considered in analyzing special assessment bonds and why?

XI

RAILROAD BONDS

By JOHN E. BLUNT, JR.

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Early history and growth of railroads. Classification of bonds. Review of railroad financing. Sinking funds. Equipment bonds. Analyzing bond issues. Railroad reorganizations. Chicago and Eastern Illinois reorganization. Market for railroad bonds. Course of bond prices. Conclusion.

RAILROAD bonds are merely one form of corporation bonds, and in reviewing some of the previous chapters, it will be found that a considerable portion of the subject-matter which might be covered here has already been presented to you. In Chapter III several pages have been devoted to railroad securities and many of their essential features have been presented in a clear and comprehensive manner.

What may be termed the "railroad situation" has a direct bearing on the security of railroad issues. This situation is both complicated and constantly changing, and to cover it accurately would require a great deal more time and research than the author has been able to give.

The railroads of the United States may be likened to the veins and arteries of the human body, and as the life of the body is dependent on the circulation of the blood, so is the welfare of the country dependent on the circulation through these arteries of transportation. The great famines of India were primarily due to lack of transportation. Since the advent of motor transportation, it is hardly probable that a complete shutdown of railroad operation would result in actual starvation, though there would undoubtedly be great privation in many sections of the country.

EARLY HISTORY AND GROWTH

The first steam railroad operated in the United States was the Baltimore and Ohio in 1830, less than 100 years ago. The progress in railroad-building since that time is shown by the following table of railroad mileage taken from the *World Almanac*:

TABLE 13
INCREASE IN RAILROAD MILEAGE, 1830-1919

Year	Miles	Year	Miles
1830	23	1905	225,196
1865	35,085	1910	249,992
1875	74,096	1915	264,378
1900	198,964	1919	263,707

The railroads have been the principal factor in the wonderful growth and development of this country. They have tied together the remotest parts of the land, and have caused the desert to "blossom as a rose." Interwoven in their building have been history, romance and tragedy, failure, disappointment, and success. Many names are linked with the various systems: Vanderbilt will always be associated with the New York Central; Garrett, with the Baltimore and Ohio; Daniel Drew, Jay Gould, and Jim Fiske, with the Erie, greatly to its discredit. Of special interest is the work of Huntington, Stanford, Crocker, and Hopkins in building the Central and Southern Pacific railroads, and many other names of equal prominence might be mentioned. The greatest era of railroad-building was from 1875 to 1900, when about 125,000 miles were constructed. Since 1900 railroad-building has been confined more largely to developing and improving railroads already constructed, and the extent to which railroad capacity has been increased during these years is illustrated by Table 14 recently published by the Illinois Central and reproduced at the top of the following page.

TABLE 14
INCREASE OF RAILROAD CAPACITY, 1883-1923

Year	Tons Carried One Mile	Percentage Increase Over 1883
1883.....	44,064,923,445	...
1893.....	93,588,111,833	112
1903.....	173,221,278,993	293
1913.....	297,722,528,693	576
1923.....	430,000,000,000	876

AID TO RAILROADS

In the earlier days every encouragement was given to building railroads, by public donations in various forms. The transcontinental roads received huge land grants; bond issues were voted by states, counties, and cities, particularly in the Middle West. Unfortunately, some of the roads were never built, and repudiation of bonds issued in aid of railroads was so prevalent 30 or 40 years ago, that several of the eastern states passed laws prohibiting the investment of savings-bank funds in municipal bonds issued in aid of railroads.

CLASSIFICATION OF BONDS

The Interstate Commerce Commission reports the grand capital investment of the railroads at the end of 1920 as approximately \$17,500,000,000, of which \$10,000,000,000 represented bonds, and \$7,500,000,000 stock. Moody classifies railroad bonds as follows: Underlying mortgages, terminal bonds, equipment bonds, junior mortgages, refunding mortgages, convertible bonds, debenture bonds, and income bonds.

In the earlier days there seemed to be no objection to the terms "second" or "third" mortgage, but during recent years the aversion to these terms on the part of the public has resulted in a number of designations for bonds which are not firsts, and the terms "general," "consolidated," "re-

funding," "unified," and "development" are used more or less indiscriminately to represent anything up to a fifth lien. Bond salesmen know that it is easier to sell a bond called a "first and refunding" mortgage than one carrying the name "second," even though the latter may be intrinsically a much better security.

REVIEW OF RAILROAD FINANCING

In reviewing the history of railroad bonds it is not necessary for present purposes to go further back than the 90's. While there are still outstanding a number of bonds issued in the 80's and early 90's, it was not until 1895-1900 that the large issues of general mortgage bonds began to appear. Many of these were made by roads emerging from receiverships, but nearly all the large systems took advantage of the low money market to put out new issues. Just how prolific was this period is indicated by the following table:

TABLE 15
INCREASE IN RAILROAD FINANCING DURING
THE YEARS 1895-1900

Railroad	Date	Maturity	Authorized	Issued to Date
Chicago and North Western, General	1897	1987	\$165,000,000	\$110,800,000
New York Central, General	1897	1997	100,000,000	94,000,000
Lake Shore and Michigan Southern, First	1897	1997	50,000,000	50,000,000
Baltimore and Ohio, Prior Lien	1898	1925	75,000,000	75,000,000
Baltimore and Ohio, First Mortgage	1898	1948	165,000,000	82,000,000
Baltimore and Ohio, S. W. Division	1898	1925	45,000,000	45,000,000
Atchison, General	1895	1995	165,000,000	150,000,000
Union Pacific, First	1897	1947	100,000,000	100,000,000
Northern Pacific, Prior Lien	1896	1997	Closed	109,000,000
Chicago, Burlington and Quincy, Illinois Division	1899	1949	85,000,000	84,400,000
Chicago, Rock Island and Pacific, General	1898	1988	99,900,000	91,500,000
Southern Railway, General	1894	1994	120,000,000	79,400,000
Central Pacific, First Refunding	1899	1949	100,000,000	98,700,000
Southern Pacific, Collateral 4s	1899	1947	36,800,000	34,100,000

In reviewing the terms of the mortgages securing these bonds, it is impossible to refrain from commenting on the lack of foresight shown by those responsible for them.

The country was emerging from a period of depression, and the primary effort seems to have been spent in meeting the investor's requirements in regard to safety and the savings bank investment laws, rather than in consideration of the future needs of the company. As the table shows, nearly all of these issues run 90 or 100 years; very few of them contain redemption privileges. At this time it was believed that money would remain easy for an indefinite period, and the consensus of opinion of financier and economist was that 3% would be a fair rate of interest for years to come. The only exception to long-time issues is the Baltimore and Ohio 3½s, maturing in 1925; and the story goes that the Baltimore and Ohio directors made the short maturity on the assumption that the bonds could be refunded on that date at a lower rate. As can be readily seen, the issues of this period proved entirely inadequate for the companies' needs, and in some cases only a few years passed before various expedients were being used for the raising of new money, such as divisional bonds, debenture bonds, and convertible bonds, not to mention equipment trusts. More recently new and more comprehensive general mortgage issues have been authorized by a number of roads. In most cases these are open mortgages without a fixed limit as to amount, except that they shall not exceed three times the capital stock, to conform to the New York Savings Bank Law. Provision is also made for issuing the bonds as series, avoiding maturity of the entire issue at one time.

A review of the bonds of the Chicago and North Western system will serve as a concrete illustration, as the bond issues of this road are fairly typical of the entire group. The authorized issue of the Chicago and North Western general mortgage bonds is \$165,000,000. The interest was limited to 5%. \$131,000,000 of these bonds were issued or reserved to retire prior liens, leaving only \$34,000,000 available for future requirements, \$4,000,000 of which might be issued from time to time for various purposes and the bal-

ance, not exceeding \$1,000,000 per annum, for improvements, including equipment. On December 31, 1922, the total funded debt of the Chicago and North Western Railway in the hands of the public was \$235,516,700, in addition to which there were in the company's treasury \$16,890,000 unsold bonds, mostly equipments. The outstanding debt may be analyzed as follows:

Underlying bonds for which general mortgage bonds of 1897 are reserved	\$42,104,000
General mortgage bonds	90,342,000
Divisional first-mortgage bonds on new lines assumed subsequent to general mortgage.....	58,591,000
10- and 15-year notes (Secured by \$20,500,000 general mortgage and \$15,000,000 first and refunding mortgage.)	30,000,000
Equipment bonds	14,479,700

None of the new first and refunding mortgage bonds has been sold, though \$15,000,000 are pledged as collateral to notes, as above stated.

SINKING FUNDS

A large number of the early bond issues of the railroads contained moderate sinking funds, the following being some of the best known:

- Chicago and North Western, Collateral Trust 1929.
- Chicago, Burlington and Quincy, Southwestern Division 4s.
- Chicago, Burlington and Quincy, Denver Division 4s.
- Chicago, Burlington and Quincy, Nebraska Division 4s.
- Burlington and Missouri River 6s.
- Chicago, Milwaukee and St. Paul, Dubuque Division.
- Chicago, Milwaukee and St. Paul, Wisconsin Valley Division.
- Chicago, St. Louis and Pittsburgh, Consolidated 5s.
- Cleveland, Indianapolis, St. Louis, and Chicago, First General 4s.
- Delaware and Hudson, First and Refunding 4s.
- Louisville and Nashville, E. H. and N. Division 6s.
- Louisville and Nashville, Pensacola Division.
- Louisville and Nashville, General 6s.

Various issues of the Pennsylvania, and Pittsburgh, Cincinnati, Chicago, and St. Louis.

In the general mortgages of the late 90s, however, the sinking-fund principle was almost entirely disregarded. A large part of the improvements made with the proceeds of bond issues are not permanent, and, even allowing for liberal maintenance, there is a real depreciation which railroads do not seem to take into consideration. A sinking fund would prove but a slight additional burden and would obviate the necessity of refunding at maturity. Take, for instance, some of the 100-year, $3\frac{1}{2}\%$ bonds that we have mentioned. It takes \$35,000 annually to provide for the interest alone on each \$1,000,000 bonds, and the principal remains outstanding. A payment of \$42,633.71 annually would provide a cumulative fund that would pay the annual interest on \$1,000,000, $3\frac{1}{2}\%$ bonds and retire the principal in 50 years. In other words, a little over $4\frac{1}{4}\%$ annually would take care of principal and interest. A slight additional amount would be necessary should the bonds be redeemed at a premium. It is well known that two or three years ago the strongest roads were paying as high as 6% and $6\frac{1}{2}\%$ for interest alone. Up to the present time, however, the sinking-fund idea has made very little progress, though it has been incorporated in a recent issue of Cleveland Terminal bonds. There are many advantages, from a market standpoint, of a bond issue with a sinking fund.

EQUIPMENT BONDS

The characteristics of equipment bonds are generally known, and, as they have already been discussed in previous chapters, it will be unnecessary to go into details here. While they are issued under two or three different plans, there seems to be very little difference in the practical working out of them. Their record up to date justifies their being regarded as the prime railroad investment today. Their comparatively short maturity limits the fluctuation

of price to a moderate range, and they are especially suitable for bank investment. They have passed through the tests of receivership better than first-mortgage bond issues, as the rentals under an equipment lease are considered operating expenses. Equipment is the only class of railroad property against which a regular depreciation charge is made. It is to be feared, however, that in many cases maturing equipment obligations are taken care of by long-time bonds, which is a questionable practice.

ANALYZING BOND ISSUES

An attempt will not be made in this chapter to tell you how to analyze railroad bond issues. White and Kemble's atlas and Kimber's maps portray very graphically the nature of the lien of railroad bonds. Various manuals contain exhaustive information, and if any of you are interested to take the trouble to read the introduction to *Moody's Analysis of Railroad Investments* you will find a mass of information that will prove both instructive and interesting. There is no class of bonds where information is so readily obtainable.

RAILROAD REORGANIZATIONS

If you own a mortgage on city property or on a farm which is in default, foreclosure proceedings can be brought, the property can be sold, and title acquired after the redemption period. The strict legal rights in the case of a railroad mortgage may be the same, but in actual practice procedure is quite different. The particular piece of road on which your bond is a mortgage is generally so interwoven with others that it cannot be segregated from the rest of the property. Then, too, a railroad is a public necessity and must be kept running, and the rights of bondholders are, to some extent, subject to the necessities of the public.

The history of railroad reorganization is interesting. Railroad reorganizations are almost as old as the railroads

themselves and constitute a very important subject, but lack of space prohibits lengthy discussion here. Most of the earlier ones seem to have been of the patchwork variety. In the early 90s, however, there occurred an era of railroad receivership which involved many of the country's leading systems. Between 1892 and 1896 a total of 213 railroads, with 56,403 miles of track and \$3,179,181,000 of capitalization, went into receivers' hands. This was more than 25% of the entire mileage of the country, and included such roads as the Philadelphia and Reading, Erie, Southern, Wisconsin Central, Northern Pacific, Union Pacific, and Atchison. Most of these reorganizations were drastic, and, while the bondholders were usually compelled to accept junior securities for part of their holdings, in many instances these showed an ultimate profit—the Atchison, Union Pacific, and Northern Pacific being conspicuous examples, and the bonds issued at this time hold their place among our best railroad investments today.

In any railroad reorganization there are usually three prime objects to be accomplished: First, the reduction of fixed charges to a point well within the earning capacity of the property. Second, the simplification of the financial structure. Most of our large systems are the result of various consolidations and usually have a large number of bond issues, many of them divisional liens, and a reorganization affords the opportunity of consolidating this indebtedness into a few comprehensive issues. Third, provision for a bond issue that will have a ready market and provide for future needs. In order to do this it is frequently necessary to relegate fairly well secured bonds to a junior position. This may seem like an injustice, but from a practical standpoint it is a necessity. Table 16 on the following pages shows the reorganization plan of the Chicago and Eastern Illinois Railroad, and is typical of the general procedure.

There is no established rule in connection with reorganizations, and, while in a general way the three objects mentioned above are the first considerations, the treatment of

TABLE 16

CHICAGO AND EASTERN ILLINOIS REORGANIZATION
Treatment of Old Securities—Condensed—Minor Details Omitted

OLD COMPANY			
Underlying Bonds		\$5,969,000	
C. & E. I. 1st Cons. 6s 1934	\$2,736,000		Undisturbed
C. & E. I. 1st Ext. 6s 1931	91,000		Undisturbed
Evansville Belt 1st 5s 1940	142,000		Undisturbed
E. & T. H. Cons. 6s 1921	3,000,000		Past due, Paid
General Mortgage Bonds		24,518,000	
C. & E. I. Cons. 5s 1937	21,343,000		100% New Gen. Mtg. Bonds
E. & T. H. 1st Gen. 5s	3,175,000		10% Pfd. Stock
Divisional Bonds		825,000	
Branches Retained			
E. & T. H. Mt. Vernon Branch	375,000		100% New Gen. Mtg. Bonds
Sullivan Co. Branch	450,000		Past due int- erest in Pfd. Stock
Divisional Bonds		7,266,000	
Branches Dropped			
Chgo. & Ind. Coal Ry. 6s	4,626,000		Lines not taken over by new company. Bond-
Ev. & Indianapolis 1st 6s	647,000		holders received
Ev. & Indianapolis 1st Cons. 6s	1,853,000		small amount Common Stock on account of guaranty
Junior Mortgages		19,303,000	
C. & E. I. Ref. & Imp. 4s	18,019,000		New 6% Pfd. Stock
E. & T. H. Ref. 5s	1,284,000		
Coal Land Bonds			
C. & E. I. Pur. Money Coal 5s		5,167,000	Bondholders foreclosed on coal properties
Equipment Bonds		2,168,000	
C. & E. I. Equip. 6s	1,477,000		Undisturbed
Receivers Equip. notes to U. S.	691,600		
Receivers' Certificates		6,000,000	Paid in full
Floating Debt		3,750,580	Compromised with Com. Stock
Total Debt		74,827,180	Fixed Charges \$3,759,996
Preferred Stock		12,163,500	100% New Com. Stock to holders
Common Stock		7,213,768	subscribing to new Gen. Mtg. Bonds at par.
Total Capitalization		94,204,448	

SECURITIES AFTER REORGANIZATION

NEW COMPANY			
New Prior Lien			
None issued except as collateral. See below.			
Old Underlying Bonds		\$2,969,000	
C. & E. I. 1st Cons. 6s	\$2,736,000		
C. & E. I. Ext. 6s	91,000		
Evans. Belt 5s	142,000		
Equipment Bonds		2,168,000	
Notes to Director General		4,210,000	
Secured by			
\$5,262,500 Prior Lien 6s			
New General Mortgage 5s		35,500,000	
Total Funded Debt		44,847,600	Fixed Charges
			\$2,327,051
Preferred Stock		22,051,050	
Common Stock		24,135,100	
Total Capitalization		91,033,750	

any particular bond issue may depend on the personnel and activities of the committee chosen to represent it and the policy of the banking-house managing the reorganization.

MARKET FOR RAILROAD BONDS

Prior to the World War millions of American railroad securities—stocks and bonds—were placed in Europe, but a large part of these holdings came back to us, and at the present time the European investment in our railroads is very small. The largest single class of purchasers of railroad bonds is undoubtedly the life insurance companies. The Bankers Economic Service reports that in 1922 they held \$1,841,684,000 of railroad securities, which comprised 22.82% of their entire security holdings. In 1911 this percentage was 35.64%, showing a substantial decrease, part of which is accounted for by the order of the New York Insurance Department, requiring life insurance companies to sell their stocks. Savings banks of the New England states, New York, Pennsylvania, Maryland, and New Jersey are also large holders, and the laws of the eastern states have been especially framed to permit and safe-

guard these investments. It has been found necessary from time to time to amend these laws to fit the changing conditions, admitting new types of bonds.

The West has never been a large buyer of railroad bonds, although beginning about 1900 this type of bond began to attain some degree of popularity. High-grade listed bonds were bought by wealthy individuals and estates, and also, on account of their ready convertibility, by a good many banks, for what they termed a "secondary reserve," but the experience of 1907 proved that long-time railroad bonds were anything but desirable as a bank reserve, and few are carried at this time. Since the advent of the income tax, the holdings of individual owners have been exchanged for tax-exempt securities. Thus railroad bonds today comprise a comparatively small portion of total bond sales.

COURSE OF BOND PRICES

It is interesting to review the course of bond prices for the last 25 years. As stated before, money was extremely easy in 1899-1900, and the best railroad bonds sold down very close to a 3% basis on the theory that this rate would prevail for some time to come. Further, it was pointed out that most of these bonds were extremely long-time. The course of investment money, however, has run contrary to the prevailing view, and, with a few breaks, rates mounted steadily until 1921. Examples of the effect of the change in money rates since 1900 are shown in the following table:

TABLE 17
INCREASE IN MONEY RATES, 1900, 1924

Railroad	High 1900	Low 1907	High 1909	Low 1920	April, 1924
Atchison General 4s	103	91½	101⅞	69	87
Illinois Central 1st 4s 1951	116	104	106	79⅛	87
N. Y. Central Mtge. 3½s 1997	111½	86	94¼	61¼	75
Union Pacific 1st 4s 1947	108	93	104¾	74⅛	90

These figures show very graphically the effect of a change in the investment rate on long-time bonds.

A comparison of the number of times interest is earned on the funded debt of the various railroads is interesting and has a direct bearing on the security.

TABLE 18

NUMBER OF TIMES INTEREST WAS EARNED ON FUNDED DEBT OF
20 RAILROADS IN 1922*

Railroad	Times Earned
Boston and Maine.....	0.997
New Haven	.68
New York Central.....	1.59
Pennsylvania Railroad.....	2.27
Baltimore and Ohio	1.19
Southern	1.71
Atlantic Coast Line	2.64
Louisville and Nashville	2.11
Chicago and North Western.....	1.79
Chicago, Milwaukee and St. Paul.....	.68
Chicago, Burlington and Quincy.....	3.50
Chicago, Rock Island and Pacific.....	1.41
Illinois Central	2.41
St. Louis and San Francisco.....	1.86
Missouri Pacific	.87
Southern Pacific Company	3.58
Atchison	3.91
Union Pacific	2.97
Northern Pacific	2.00
Great Northern	1.67

*Taken from *Poor's Manual*.

CONCLUSION

As stated before, the tendency of the railroads has been to issue very long-time securities, a condition which is wrong in principle. The buyer of a bond buys it subject to all the changes that may occur during its life, and none can look a hundred years ahead. Writers on financial subjects are too prone to discuss the difference between long- and

short-time bonds as merely one of price, without taking into consideration that time is one of the essential factors of safety. While it is impossible accurately to predict the future for even a short time, it is obviously easier to anticipate conditions for five years than for fifty.

An analysis of railroad bonds would be incomplete without taking into consideration some of the factors in the railroad situation as it exists today, and, unfortunately, most of these appear to be unfavorable. In the last four years 98.25% of railroad capital has been furnished by bond issues and only 1.75% by the issue of stock, resulting in a constantly diminishing equity behind the funded debt. Both railroad rates and wages are controlled by commissions which too often are prone to listen to public sentiment; taxes have doubled and now exceed dividends, and motor transportation, traveling on roads which railroads are taxed to build, is a formidable competitor. In an article in the *Railway Age* of February 23, 1924, James C. Davis, Director-General of Railroads, makes the following statement:

I believe that today and now the railroads of the United States are facing the most crucial situation since the government assumed the right and authority of control. They are at the parting of the ways. One road, the straight and narrow path, by strengthening and supporting private ownership, leads to a privately owned and operated system of transportation, which, if given reasonably remunerative rates, will furnish to the people of this country what they need and are entitled to, the cheapest and most effective transportation in the world. The other, the broad road, leads perhaps to destruction, or at least to government ownership, which, I believe, would be not only the greatest mistake in judgment, but the most expensive experiment ever undertaken by this government, and eventually would result in an inefficient and unsatisfactory service, at a greatly increased cost.

There are, however, a few bright spots, the inauguration of dividends by the Southern Railway after 30 years, being one of them. On the whole, 1923 showed an improvement in railroad earnings. Let us hope that the policy of regula-

tion is not carried to the point of destruction and that there will be a return to saner thought on the part of the people, particularly the representatives of those sections of the country which have most to gain from good service.

SELF-TEST QUESTIONS

1. Why do the states not issue bonds at present to aid the railroads? Why have land grants to railroads by the states and the National Government ceased?
2. Classify railroad bonds according to security, and define each kind and class.
3. Why do investors dislike second and third mortgage bonds? What has been done in naming bonds to overcome this antagonism? Is such antagonism always reasonable?
4. Why did railroads issue general mortgage bonds in such large quantities during the period 1895-1900?
5. What weaknesses are typical of the general mortgage bond issues of the period 1895-1900? Are they weaknesses from an investment view-point?
6. How have the weaknesses discussed in connection with Question 5 been remedied in later general mortgage issues?
7. Why have railroads ceased to incorporate sinking-fund provisions in trust deeds under general mortgage bond issues? Why are equipment trust bonds always retired in series by sinking fund?
8. Why are equipment trust issues such sound investments?
9. Suggest texts to use in analyzing a railroad bond for investment purposes.
10. How do the rights of railroad bondholders differ from those of real estate bondholders in case of default? Explain your answer.
11. What are the main purposes of railroad reorganization, and how does their accomplishment affect the various classes of railroad security owners?
12. Study the reorganization plan of the Chicago and Eastern Illinois road. Try to account for the treatment given the various classes of security holders.
13. Is the market for railroad bonds increasing or decreasing?
14. Discuss the present railroad situation with respect to its effects on rail securities as investments.

XII

PUBLIC UTILITY BONDS

By WILLIAM J. WARDALL

Western Manager, Bonbright & Company, Inc.

Definition of a public utility. History of public utility industry. Public utilities and industrials compared. Capital turnover. Work of public utility commissions. Constructive regulation. Public utility holding company. Customer ownership. Municipal ownership. Private ownership. Classification of various types of public utility bonds. Cooperative achievements in electrical industry.

A PUBLIC utility has been defined as a business affected with a public interest. This definition requires a certain amount of explanation. The very words "public utility" imply community usefulness, but it is readily seen that many institutions might come under this definition which could not properly be termed public utilities. If the only qualification necessary to inclusion in the group were a readiness to perform a necessary service to the public, it would be rather difficult to explain why a hospital, a dry-goods store, a physician, and a flour manufacturer are not public utilities. There are, however, certain conditions that affect the definition and limit the public utility field to a few recognized forms of business. The distinction between a man selling flour and a man selling water, and between a company selling rides on a roller-coaster and a company selling rides on a street-car, roughly may be said to be that one operates subject to competition and the other does not.

Many years ago in a legal sense the term "public utility" included surgeons, blacksmiths, innkeepers, ferrymen, victuallers, and many others who were responsible to their public legally and morally to provide their best service at a fair price because of the fact that in their community they

were virtually alone in their business. It is simple but gradual usage that has narrowed the field down to what it is today. Competition has become general in most lines of business, while in a few it has proved unprofitable and uneconomic, both for the public served and for the business itself. The latter, as a rule, have been those in which the original investment was the greatest, and they constitute what are today termed "public utilities."

There is really no reason why the miller should not be as much of a public utility as the water company. Both supply necessities to the public. But the tremendous devel-

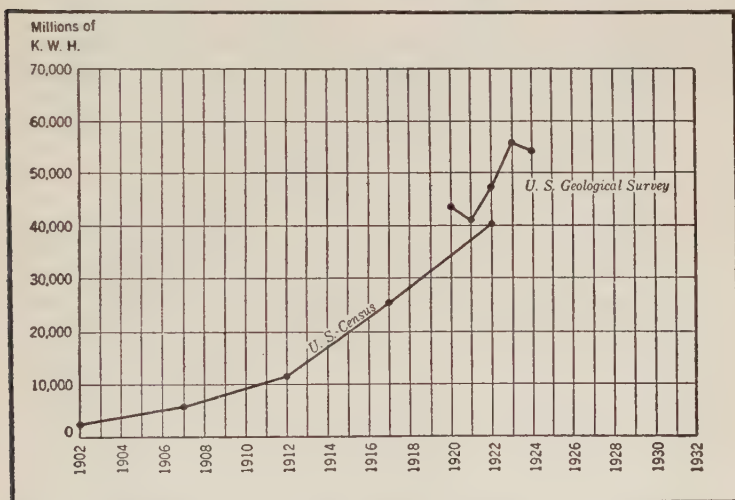


Figure 1: Increase in the electrical energy generated in the United States from 1902 to 1924.

opment of transportation facilities enables the former to distribute his product virtually throughout the world and has brought him into a competition which is legitimate and helpful to the public weal. If he were subject to the same limitations of distribution and an equivalent initial expense as, for example, the operators of a hydro-electric power company, he could probably be induced by his community to undertake to provide them with flour only under the pro-

tection of a franchise that prevented competition. He would then be "a public utility."

Now those businesses in which it has been found expedient to guarantee freedom from competition, to induce responsible operators to provide service subject to regulation, have been reduced to a few outstanding industries. These commonly include the manufacture and distribution of electricity and gas, water service, telephone and telegraph, transportation, and, in some cases, heating and the ice business, the last named usually being subordinate to a larger public service. Under transportation, the great steam railroad systems of our country would naturally be included as public utilities, but that business is itself of such magnitude that it is regarded, especially from a financial standpoint, as an independent group.

HISTORY OF THE INDUSTRY

Of the three chief kinds of public utility, electricity, gas, and electric railway, the first is the most recent, and its development is the most spectacular. The electric power and light industry is today but 42 years old, but there is invested in it over \$6,500,000,000. The great bulk of this investment has been the result of growth in the last 20 years. In 1902 the gross earnings of all the electric power and light companies in this country were about \$6,000,000. Today they are over \$1,400,000,000. The business of electric power and light has practically doubled every 5 years since its inception.

The demand, moreover, is increasing steadily, and nothing resembling a saturation point in the use of electric service may be said to have been approached. Only 65% of the nation's industrial power load is generated by electricity. Less than 43% of the population of our country lives in electrically lighted dwellings. Of the miles of railroad trackage in the country, probably not over 1% has been electrified. Although a considerable amount of work is being

done toward making the distribution of electricity to farms practicable, this phase of the industry is still experimental. Although the past of the electric power and light industry has been sensational, the future still holds remarkable promise.

The gas industry is far older than the electric. The practical application of gas for lighting purposes dates, in this country, from 1802. Its growth has been more gradual but no less steady, and today the gas industry has an invested capital of about \$4,000,000,000. As in the case of electricity, the rate of growth of the industry has been accelerated during recent years. In the last 10 years production of manufactured gas in the United States has increased 100% and the consumption of gas for industrial purposes, 1,000%. This brings us to an interesting feature of gas history.

The use of gas throughout the Nineteenth Century was almost altogether for illuminating purposes. So well established had gas lighting become that the advent of electricity was looked upon at first as an unnecessary refinement, and then subsequently as the wrecker of the gas industry. People at first did not think that electricity could supplant gas in the field of lighting and then, when ready to admit that this was so, many were prone to reverse their opinion so decidedly as to see no future whatever for gas. Quite to the contrary, the more or less enforced development of gas along other lines than those of illumination was probably the best thing that could have happened to the industry. Experimentation was conducted in the use of gas industrially, and the advantage of its ability to produce steady, even heat was quickly seen. During recent years tremendous progress has been made in this branch of the industry.

ELECTRIC RAILWAYS

The electric railway industry has been one of varied experience. More than any other type of public utility, the

tractions have found themselves the center of attack by political demagogues and subject perhaps to more severe regulation than any other of the classes of utilities. Agitation for municipal ownership and overrigorous rate-reducing activity have generally focused upon the electric railways as an objective. It is a little difficult to ascertain precisely why this should be so, save that perhaps the railways, serving as they do a larger public than any of the other utilities, have appealed to publicity-seeking politicians as the most appropriate victim for their tirades. As a result, the railways as a whole have been probably less fairly treated in the communities they serve than any of the other utilities. They will accordingly reap the highest benefit probably in the era of better feeling and more broad-minded policy, of which customer ownership is certainly the forerunner and largely the cause.

The electric railway industry today represents the investment of \$5,600,000,000. Through the unsettled period since 1914 the tractions have suffered many local vicissitudes, but today the general feeling throughout the industry is decidedly improved. The development of auxiliary bus service as feeders to main electric lines has materially assisted in mitigating what bade fair to be a serious complication a few years ago. By taking over and controlling under proper franchises such bus routes as were necessary to complete their service, the electric railways have been enabled to maintain their rights as purveyors of transportation, properly subject to no direct competition. In almost every instance, the operation of auxiliary bus lines has proved profitable, and the elimination of unregulated competition has greatly relieved their situation.

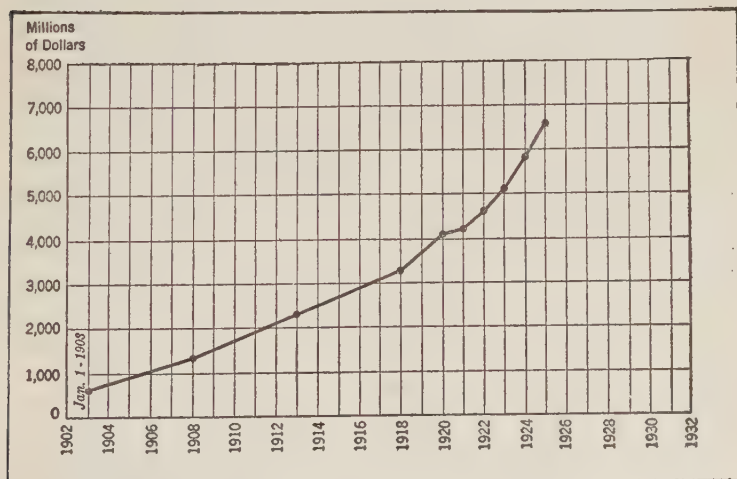
If we include \$2,000,000,000 or more as the investment in the telephone and telegraph business, we find a total investment in public utilities in this country of over \$19,000,000,000. In the iron and steel industry there is only slightly over \$3,500,000,000 of capital, and in the automobile industry, considerably less than \$2,000,000,000. This

comparison is an illuminating one in showing the size and scope of the industry, and is even more comprehensive when one stops to realize that the greater part of this development has taken place within the life of one man, Edison.

PUBLIC UTILITIES AND INDUSTRIALS COMPARED

The comparison of public utilities from the point of view of invested capital, however, or from any other point of view with individual industrials is scarcely fair. It is fundamentally a comparison of the essential with the non-essential. The contrast which can be made, however, is interesting, in spite of the fact that the explanation may almost invariably be found in this one consideration.

Primarily, the first advantage that the public utility has over industrial business is stability of demand. Bad times bring with them many sacrifices on the part of individuals. People wear old clothes another year, put off building new houses, refrain from buying new automobiles or perhaps sell the old ones with the attendant losses of future replace-



Figures from *Electrical World*

Figure 2: Total amounts of money represented in investments in the electric light and power industry.

ment, and so forth, but people do not discontinue using the street-car, do not sacrifice heat or light nor the cooking of food during such periods merely for reasons of economy. We are committed to certain practices in the use of power, light, gas, water, transportation, and the like, which fluctuating periods of prosperity do not affect. All this results in a stability of demand for the public utilities, and there is no greater asset in any business than an assured market for the product.

Another interesting comparison which may be made between industrials and public utilities is that of the labor factor. To a rather unusual degree, particularly in the power and light industry, the labor factor is distinctly subordinate. The average of all labor considerations entering into the combined expense accounts of such companies is undoubtedly less than 20%. In hydro-electric companies it is very considerably less. In industrials, in general, labor cost is one of the most important factors, if not the prime factor in the operation of their business. Comparative independence of the labor element is one which for many industrials spells the difference between success and failure.

A third consideration, and one which recent history makes particularly significant, is that of inventories. This is the rock which sank so many of our industrials after the period of post-war inflation. The two chief products of the public utility business are power and service. Neither can be stored. These are commodities "manufactured" and sold only as the demand requires. Public utilities are for the most part never confronted with the problem of writing off inventories accumulated at peak prices and salable only at a loss.

The utility business is for the most part on a cash basis. Bills for electricity and gas are the first paid. Personal experience corroborates this fact. The fear of having service cut off prompts a conscientious payment of these obligations, which is invaluable to the company supplying the

service and which can never be secured by other types of manufacturing companies. Here again, of course, is seen the same undercurrent of "necessity" that is the foundation of the successful operation of modern public utilities.

CAPITAL TURNOVER

It must be borne in mind, however, that the public utilities, as compared with industrials, require an immensely greater amount of investment to secure the same volume of sales. Capital turnover in industrials and in various kinds of merchandising occurs from one to ten times a year. In many public utilities, and strikingly in power and light companies, capital investment is turned over only once in from three to five years and in the case of hydro-electric companies the rate is frequently even slower. This accounts for the frequent need of raising new capital when additions and extensions of service are required. In the very nature of their business no great surplus can be amassed to take care of such improvements. This is obviously because of the fact that their earnings are limited by rate regulations and that so long as they are permitted to earn only a fair rate on invested capital the possibility of any very substantial reserve being set aside is remote. This is a condition that works both ways, however, for although high rates are prohibited, a fair return on the investment is correspondingly assured. In other words, the very fact that earnings are kept down insures their being kept up, because the placing of public utility services at prices within reach of all not only insures a steady demand but creates an ever-increasing public appetite for these services.

The method by which rate regulation of public utilities is performed still varies in different sections of the country with the history and the development of the commission, and is of very considerable interest. In fact, we would do well to devote a part of our consideration of this subject to the work of the public utility commissions today.

WORK OF PUBLIC UTILITY COMMISSIONS

As previously mentioned, the very fact that public utilities are fundamentally free from competition has naturally made them subject to public regulation. Competition as a means of regulation did not prove successful, for it too often meant duplication of facilities in a field not large nor rich enough to support more than one company. Where there was such competition, a consolidation was usually effected, followed by the establishment of high rates calculated to be a means of recouping previous losses due to competition. This was naturally unsatisfactory to the community, which found itself better off with a single responsible company operating subject to such regulations as existed in the state. State control of public utilities by direct legislation, however, was generally unsatisfactory. Maximum rate statutes came into being, passed at the urgent demand of ratepayers without proper consideration of the problems involved and usually without taking into consideration the conditions affecting individual companies in different communities. Maximum rate statutes were by nature arbitrary and unscientific, and often unfair. Lack of flexibility, and red tape incident to alteration in case of new and unforeseen situations, made them inadequate and unsatisfactory. As a result, local control of utilities became by far the most popular and frequent form of regulation. States left local utilities to local authorities, and this became so rooted as a general practice that in some states the method still persists.

How generally inadequate such control has proved to be may be judged by the following extract from an opinion of Judge Owen of the Wisconsin Supreme Court, who summed up the relationship existing between the respective municipalities and their public utilities as follows:

The impotency of the municipalities to deal with them so as to secure adequate and satisfactory service for reasonable charges was abundantly demonstrated. The officers of the municipali-

ties lacked the training in the technique of the public utility business which was essential either to protect the interests of the citizens or deal justly with the public utility company. Whether the relations between the municipality and the utility company were that of open war or supine acquiescence on the part of the city to the demands of the company mattered little to the consumer. Unreasonable demands made by the city as a result of a lack of information concerning the public utility business were as fruitless of just results as meek submission to the ultimatums of the utility. The situation resulted neither in justice to the consumer nor stable business conditions to the utility. So it was determined to take from the municipalities, which were not equipped to fix standards of service which might reasonably be demanded under the circumstances and determine reasonable rates therefor, the regulation and control of public utilities, and vest that power with the Railroad Commission, which body, through its staff of experts, could acquire the information necessary to fix and enforce appropriate standards of service and just and reasonable rates which should adequately compensate the utility for the service rendered. The legislation has been welcomed by the public and the public utility companies alike.

It was to take the place of crude and unsatisfactory methods of dealing with public service corporations that the policy of regulation through state commissions was adopted. Experience having demonstrated that competition cannot be trusted to solve the problem of securing fair utility rates, that regulation by direct action of the legislature was arbitrary and inadequate, and that municipalities were generally not equipped to safeguard the interests of either the rate-payers or the corporations, the states began to take upon themselves, through the state commissions, the obligation of protecting them both. The commissioners were empowered to act as judiciaries and take evidence in individual cases, just as do the courts, and to determine moot points on individual merits. They were, furthermore, given power to inspect the books of companies, examine their financial transactions, make valuations of the property, to ascertain the amount of the investment, or the value of the property as a basis of establishing rates and, in short, to arbitrate for the benefit of all concerned.

It is frequently thought that state commissions were created for the sole purpose of protecting the public. Many state commissioners themselves shared this feeling and felt themselves bound as public servants to regard the utilities in a manner not wholly friendly. But experience has demonstrated that corporations often need protection against unreasonable claims of ratepayers quite as much as do ratepayers from unfair demands of corporations. To act as arbitrator of conflicting demands is the function of the commission. In this connection it is interesting to note in passing that in the matter of rate-making during recent years, the tendency on the part of state commissions has decidedly been to increase rather than reduce the charges of the utility.

CONSTRUCTIVE REGULATION

We were indeed fortunate to have had fair-minded and wise state commissions to regulate rates during the chaotic period subsequent to the World War. Many companies were kept from receivership by the allowance of rate increases which were effected in the face of strong opposition by ratepayers. The broad-minded policy of protection saved the country from a great industrial calamity which might well have taken place in the economic disturbances during the so-called reconstruction period.

Despite occasional criticism from both sides, there is no doubt that the work of the state commissions in recent years has been of a uniformly high character throughout the nation. Over a period of years a wealth of working principles and general formulas, opinions and questions on jurisdiction and the great collection of important opinions and declarations of policy have established a mass of precedent upon which decisions may confidently be based. Not only have the commissioners themselves profited by years of experience, but new appointments have before them the opinions of the greatest experts in the field of public utility regulation.

Today the commissions, far from being a menace to the industry, may be said actually to make public utility operation safe for the investor as well as fair for the public, and an encouragement to the development of greater efficiency and usefulness of the utilities.

Before leaving the subject of the commissions, we might properly outline their history in some chronological fashion. The first of the commissions were railroad commissions and the present so-called public service, or utility, commissions were for the most part the outgrowth of these.

The first of the railroad commissions appeared in New England: in New Hampshire and Rhode Island, in 1844; in Connecticut, in 1853; and in Vermont, in 1855. New York established a commission during the same year, Maine followed in 1858, Ohio, in 1867, and Massachusetts, in 1869. The work of these commissions was largely to gather information, their powers were limited, and their function largely advisory.

Not until about 1890 were the powers and authority of the commissions greatly extended, and it was really not until 1905 that new commission laws were passed in Washington, Wisconsin, and Indiana in which jurisdiction was given commissions. These laws enabled the commissions to fix rates on their own motion or on complaint, gave them real powers of regulating service, and provided for the examination of corporation books. In some cases they also fixed penalties to enable enforcement of commission orders.

It was about this time also that other utilities, such as gas and electric companies, generally came under the control of the commissions, although in some instances, notably Massachusetts, there already had been established for some years a Board of Gas and Electric Light Commissioners. Wisconsin was the first state to extend the jurisdiction of its commission to telephone, telegraph, light, water, and power companies in general. This was in 1907 and may be said to mark the beginning of the modern period of state regulation.

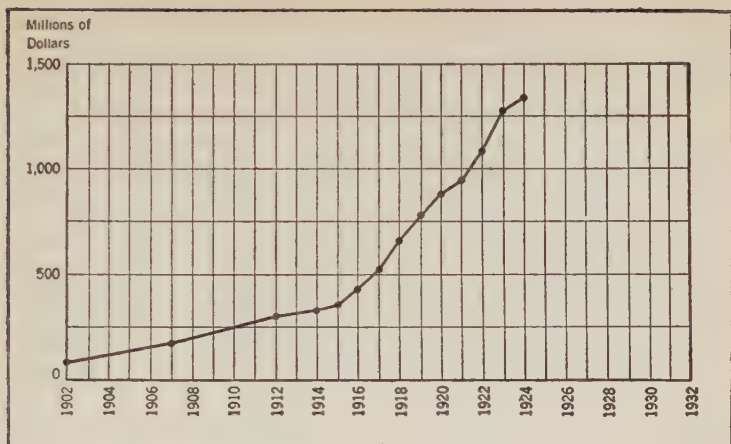
THE PUBLIC UTILITY HOLDING COMPANY

Not so early in the history of public utilities as the establishment of the first state commission, but considerably before the powers of those commissions were extended to anything approaching their present scope, a form of corporate consolidation for the financial control and general guidance of public utility operation came into being in the guise of what was known as a "holding company." In 1882 the United Gas Improvement Company was incorporated for the purpose of introducing improvements in the gas industry. With an eye toward the exploitation of a new method of water gas manufacture, the company leased gas works in various parts of the United States and subsequently acquired their stocks. This was perhaps the first definite attempt to bring under one management numerous independent, geographically separated public utilities.

Professor Dewing, of Harvard University, in his book on the financial policy of corporations, gives a very clear definition of a public utility holding company:

In its simplest form, the public utility holding company consists of a corporation organized under the laws of some state which permits its corporations to hold the securities of other corporations in its treasury. It acquires at least a majority of the stock of local gas, electric, and traction companies. Against these treasury securities it issues its own stocks and bonds. In brief, the holding company acquires a control of the equities of local utilities, and through the ownership of these equities exerts a direct administrative control over the operation of the local utilities themselves. It assumes that a single central organization can exert a more efficient and economical management, although it may be miles away, than is possible by the local owners. It assumes that the public utility business is susceptible of a high degree of specialization, and that a few trained specialists can operate many widely separated plants—it is a kind of industrial combination applied to the field of local public service companies.

The holding company form of organization, as applied to public utilities, appears to have four advantages. First,



Figures from U. S. Census and *Electrical World*

Figure 3: Gross annual revenue of the electric light and power industry, 1902 and 1924.

it is presumed that the central organization results in the benefit to the individual plants of a special technical knowledge and skilled experience at a comparatively low cost. Second, it is believed that the central organization is able to purchase equipment and supplies in a wholesale manner on better terms and more intelligently than could the local organization. Third, it is contended that the holding company is in a better position to deal in a far-sighted manner with both commissions and customers, and finally, but not the least important, it is naturally felt that a central organization can secure the capital required for extensions more satisfactorily and at a lower interest rate than could be done by an independent utility.

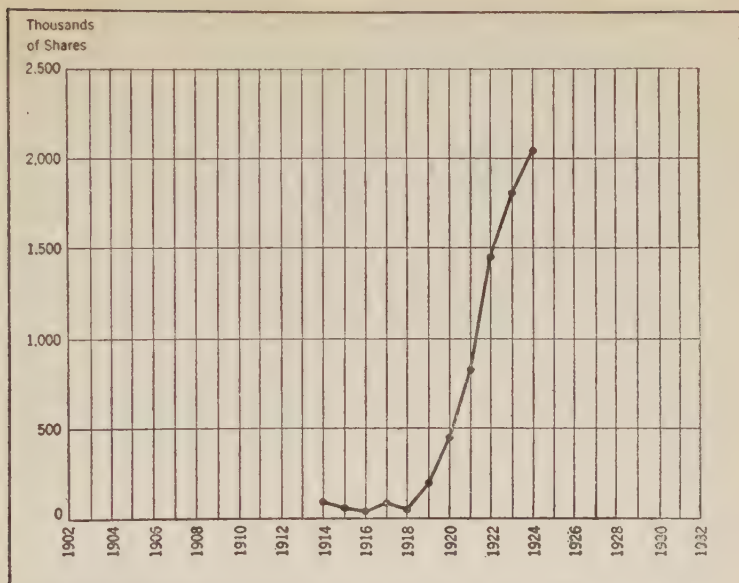
We are, naturally, particularly interested in the last phase of the holding company's service to the operating utility. The assistance that the holding company renders its subsidiary in financial matters is probably its chief service. The holding company advances money to the subsidiaries in the beginning, taking in return ordinary demand notes. It then acquires for permanent investment or subsequent sale, the stock, bonds, or debenture notes of the subsidiary.

In other words, it undertakes to render both temporary and permanent financial aid to the operating companies, as well as oversee the administration of their own finances.

We have already seen that the need of new capital in thriving utility companies is great and constant. The securing of it is, hence, one of the chief problems that face public utility companies. In the face of practically incessant competition for capital, the support rendered by a holding company to its subsidiary is highly desirable. The mere fact that a small local company is owned and controlled by a well-known holding company will invariably aid in the marketing of its securities. This is in part the natural result of the generally accepted belief that even though the subsidiary were not paying its way and the equity common stocks were practically worthless, a prosperous holding company will continue to advance bond interest on open accounts for a considerable period of time rather than allow a subsidiary to default on its charges and pass into the hands of receivers. The failure of a subsidiary, notwithstanding any excuses, invariably affects the credit of the holding company.

The question of securing capital wherewith to defray the original expense of the purchase of properties, and so forth, by the holding company is simplified by the popularity which their own securities enjoy. They are frequently in the market for money by the sale of their own securities, which, on account of their diversified risk, due to the varying character of the operation of their subsidiaries and the fact that they are situated in widely separated parts of the country, afford even junior obligations a ready market with the public.

The public utility holding company has been largely responsible for the great growth and development of the public utility industry in this country during the past 15 years. Some of the chiefly notable of these companies are the following: American Telephone and Telegraph Company, American Gas and Electric Company, American



Figures from the National Electric Light Association and the *Electrical World*

Figure 4: Number of customers owning shares in electric light and power companies from 1914 to 1924.

NOTE: In 1914 the average number of shares purchased by each new stockholder was 22.8 shares. In 1923 the average number was 7.4 shares.

Power and Light Company, Standard Gas and Electric Company, Cities Service Company, Middle West Utilities Company, The North American Company, American Water Works and Electric Company, Inc., The United States Gas Improvement Company, and the American Light and Traction Company.

CUSTOMER OWNERSHIP VERSUS MUNICIPAL OWNERSHIP

Customer ownership versus municipal ownership is misleading in that it implies an alternative. Although great strides have been made during recent years in the progress of customer ownership, the great bulk of utility companies in the country are neither customer owned nor municipally owned. The pioneers in the development of the electrical

industry have been private enterprises. It is private enterprise which today is making what was once an engineer's dream of "superpower" a present reality. This is pointed out, in passing, simply to eliminate the possibility of any one believing that there are two kinds of ownership of utilities, customer and municipal. Viewing these two, however, as two kinds of public ownership, there is a very decided choice. Customer ownership, a vital aid to the proper development of public service, is rapidly increasing. Municipal ownership, usually a millstone about the public neck, is obsolescent.

Considering, first, customer ownership by itself, it were as well to say something of its origin and growth. It was the Pacific Gas and Electric Company that first conceived the idea of raising capital and fostering public good-will by the direct sale of junior securities to its customers. The first day of June, 1914, that company sent out a circular addressed to the employees asking them to participate in the purchase of preferred stock about to be offered to the stockholders for cash or on the instalment plan. There was a very ready response and within a month a similar offer was made to the customers of the company, and all the stock offered was quickly subscribed to. The practice has been continued from time to time ever since, and always successfully. In the year 1922, eight years after the original offering, the sales of preferred stock to customers of the Pacific Gas and Electric Company totaled more than \$10,000,000. These shares were sold over the counter without any concentrated effort save local advertising, and absolutely without any sales organization. The spirit of the employees of the company had become, perhaps unconsciously, that of salesmen who felt themselves partners in the enterprises for which they were working.

In this connection it is an interesting thing to know that only a few months ago the Pacific Gas and Electric Company began selling common stock to its stockholders. Although there are a few instances of this being done before

on a small scale, no broad policy of this nature has heretofore been adopted. It is interesting to find the Pacific Gas and Electric Company pioneers in this new departure as they were in the first phases of customer ownership.

The growth of customer ownership throughout the nation has been tremendous. The success of the Pacific Gas and Electric Company was quickly known throughout the industry and there were many quick to imitate. The National Electric Light Association has been for years keeping a record of the development of this activity, and its figures are striking. Table 19 gives a summary by years of the number of stockholders obtained and the shares of stock sold since 1914. These total 5,047,407 shares of stock, through the sale of which 652,900 stockholders have been obtained.

TABLE 19
GROWTH OF CUSTOMER OWNERSHIP, 1914-1923

Year	Stockholders Obtained	Shares of Stock Sold
1914	4,044	92,310
1915	4,357	57,130
1916	3,681	38,183
1917	8,242	82,007
1918	5,186	42,388
1919	19,872	194,021
1920	53,063	454,139
1921	118,544	830,222
1922	156,725	1,450,222
1923	279,186	1,806,300
	652,900	5,047,407

The tremendous significance of the customer ownership method today may be seen from the following figures. Authoritative estimates indicate that total construction programs of the electric power and light industry during 1923 called for an expenditure of \$750,000,000. Of this amount approximately \$250,000,000, or 33%, was raised through customer ownership activities.

From the standpoint of the electric company, this method of financing is highly to be desired. It affords them an opportunity to obtain, at a minimum cost, a substantial portion of the capital required to keep pace with the demands of the industry. It materially strengthens their credit position. It stabilizes the market values of the securities outstanding by the best sort of distribution. Finally, the most important of all, it embodies the most practical form of true public ownership, and by creating a general good-will in the communities served, goes far to protect the utility from attacks of unprincipled politicians and agitators.

Customer ownership embodies the most practical form of true public ownership. It is a growing practice throughout the country, and as such is in direct contrast with that other form of public control, ownership by municipalities.

Municipal ownership is obsolescent. A total of nearly 700 municipal electric plants, for example, have been abandoned, the great majority during the last 10 years. Municipal operation is too frequently political operation. This is probably the chief objection to it and the main reason why it has not developed as successfully as private enterprise. A management subject to removal as a result of fluctuations of political feeling is necessarily handicapped, nor is the system of elections and appointments always conducive to establishing the right man in the right place. When the place in question is one requiring engineering science and executive ability, the chances of a succession of holders being of equally high caliber are materially reduced. It stands to reason that experienced engineers and business executives who have always been connected with the operation of electric or gas companies, and so forth, established with a sense of permanency, have a much broader outlook for building up successful service and perfecting that service than a probably temporary group of officials, perhaps capable enough, but thrown together by more or less fortuitous political selection.

Facts bear out the case:

Municipal plants have never been operated as economically as the privately owned ones. The average rate charged by all municipal plants in the United States is more than twice as high as the average rate of all companies reported by the Census. According to the Census, furthermore, the municipal plants hire 10.3% of all the electric light and power employees in the United States and buy 10.3% of all the fuels used in generating electricity, but they produce less than 4% of all the electricity sold in the country. And yet, again, the Census states, as to comparative rates of electric plants, that "The average rates received by municipal plants for their current are much higher than those charged by the other group, as is indicated by the fact that, while they sell only 4% of all current, they receive 7.9% of the income from the sale of current."

Municipal ownership is no longer seriously considered a menacing factor to private enterprise in the public utility business. Not only has it proved generally unsatisfactory to the public, but the publicity incident to the great spread of customer ownership has proved so enlightening to voters that political demagogues are finding it increasingly difficult to make capital out of attacks upon public service companies. There are sporadic outbursts of municipal enthusiasm in certain sections of the country, but these have shown an increasing tendency to fall of their own weight and, we believe, will become less and less frequent.

CLASSIFICATION OF VARIOUS TYPES OF PUBLIC UTILITY BONDS

The financial set-up of public utilities has undergone quite important changes in the last ten years, particularly in respect to the form of mortgage securing the bonded indebtedness. Prior to 1914 the majority of public utility mortgages were similar to those of an industrial corpora-

tion. That is, they were mortgages which covered all existing and future corporate property, and under which only a limited amount of bonds could be issued, and which required a sinking fund arranged to retire the greater part of the bonds before maturity. This application of an industrial mortgage to a public utility was, if the fundamental differences in the business of the two groups had been considered, quite absurd. The public utility requires immensely more capital investment than the industrial for the same gross sales—a ratio, as we have seen, of something like five to one. At the same time it requires that this greater investment be continually increased at a rate greater than the normal growth of the average industrial. And the most important difference of all is that on this large investment, which is only turned over once every five years, the public utility is allowed to earn only a limited return. This form of mortgage really meant that a public utility should, from its earnings, which were strictly limited, maintain and depreciate its property, pay interest on and gradually retire its bonds, and, if it did not want to lose its franchise, pay out large sums for additional facilities to satisfy the growing needs of the community served. Its regulated earnings obviously weren't enough to do this. The only solution was second, third, and fourth, up to tenth and twelfth mortgages, and nobody wanted them; but, if by any chance they could be sold, the interest would be so high that the company's unfortunate situation would be aggravated. It is an extraordinary testimony to the essential nature of public utility service that they survived at all.

The obvious injustice of this form of mortgage was so apparent that considerable attention was given to righting it, by the leading men in the financial and utility fields. The result has been a kind of mortgage which is now almost universally used by public utilities. It is a mortgage covering present and future property with the issuance of bonds restricted by earnings and property additions, but unlim-

ited as to total amount. This is commonly called an "open-end" mortgage. It permits the issuance of bonds in series having different interest rates, maturity dates, call features, tax features, and so forth, but all having the same security. The old sinking-fund provision is supplanted by a fund for the maintenance of the property. The usual property provision is that additional bonds may be issued for from 70% to 80% of the cost of additions to the property and then only if the interest on the bonds outstanding, plus those about to be issued, is covered from $1\frac{1}{2}$ to 2 times by the annual earnings. Additional bonds may also be issued to retire underlying or prior lien bonds, or against the deposit of an equal amount of cash with the trustee. This last proviso is to permit the company to take advantage of favorable market conditions.

Under this form of mortgage, public utility companies have found little difficulty in financing the continuous expansion of their facilities, made necessary by the growing needs of the community. Investors now realize that the rigid, old-fashioned closed mortgage is, when applied to public utilities, as much against their own interests as it is against those of the company.

Another rather recent development in public utility financing has been the increased use of long-term debentures. They serve the purpose of an insurance against the difficulty of financing in hard times. Assume that a company of high credit standing would normally finance its new construction through the sale, in definite proportion, of mortgage bonds, preferred stock, and common stock. Such a company keeps in its treasury a certain amount of its mortgage bonds which have been issued against new construction and sells debenture bonds in their place. The debentures, it is true, cost such a company slightly more than would the mortgage bonds, but the company looks upon this additional cost as an insurance premium, a certain amount of its senior securities remaining in its treasury to be used during periods of financial stress for short-term financing.

The same result could, of course, be accomplished by putting out additional preferred stock (in addition to what would normally be issued), but such stock, costing the company even more, would make the "insurance premium" that much larger.

In addition to the long-term debentures, there has been a tendency during the last year or so to sell short-term debentures to finance additions and extensions to property. The company in these cases generally expects the earnings to increase sufficiently as a result of added business to justify the refunding of the debentures, when due, by the sale of preferred or common stock. Frequently such refunding is anticipated by a convertible feature in the debentures. This system has met with marked success.

COOPERATIVE ACHIEVEMENTS IN THE ELECTRICAL INDUSTRY

There is one more financial development that promises to play a large part in the future financing of power and light companies. This can best be made clear by giving an example. Mass production in industry is generally cheaper than scattered production. The same thing is true of the generation of electricity. Now let us assume that two or more companies must increase their production of electricity, each to a slight degree. If each company had to build a new plant to take care of this slight increased demand, the plants of each company would probably not manufacture electricity as cheaply as one larger plant making the total amount of electricity required by both companies. So if the two companies are neighbors, they often decide to go into partnership as far as the source of their required additional power is concerned. A separate company is organized and the construction of a plant of the capacity required is started. The new company sells to the two older companies enough of its stock to cover from 15% to 30% of the cost of the plant construction and

makes a firm contract with these companies for the sale of its power at a rate high enough to cover interest on the balance—85% or 70% of the cost of construction of the plant—and to provide for a dividend on the stock. The contract or lease is always for a long period. The new company then sells its own bonds secured by a mortgage on the new plant. This is the scheme in general, but there are any number of variations in detail. Sometimes one company will lease another for a rental more than enough to cover the bond interest and dividend charges, and operate the leased company itself. But in all these cases the principle is the same; that by cooperation different power companies can increase their production at the lowest possible cost and yet give a return to the new company sufficient to provide security for its bondholders and stockholders.

To make this clear from a bondholder's point of view, this sort of an arrangement might be compared to an equipment trust issue in the railroad industry. The physical security, that is, the cars or locomotives back of the issue, is essential to the operation of the railroad. The power plant and its current generated are equally essential to the power companies. The cars or locomotives are not subject to the railroad company's creditors' liens; neither is the new power plant. The title to the railroad equipment is vested in the trustee at a cost of from 15% to 30% lower than its cost, and this margin is constantly preserved by the operation of a sinking fund in the case of the railroad and by an improvement fund in the case of the power company, the title to which is also vested in the trustee for its bondholders at less than cost.

One may object that the analogy is not complete in that, in the case of the car trust equipment issue the security, that is, the cars or locomotives, can be used by another railroad if for any reason the railroad renting them should become bankrupt, whereas in the case of the leased company, as it cannot be transported from place to place, no one could use it except the lessee companies. There are two

reasons why this objection is not valid, even admitting the impossible situation on which this objection is predicated that any power company today could be allowed to cease business. The first reason is based on the fact that the useful purpose served by the leased company is the production of power. It is the power produced that corresponds most perfectly to the cars or locomotives. Power today is easily transmitted over distances so great as to make available to the leased company other customers than those lessee companies which have gone out of business. It is difficult to conceive of a power manufacturing company whose territory would not be so situated that transmission lines would not correspond, in our analogy, to the railroad tracks over which the cars or locomotives might run. Second, even supposing these two impossible situations, namely, that any lessee company could be permitted to cease the supplying of power and that the lessor company would have no other source for the sale of its power in bulk than this now defunct lessee company, then the lessor company could itself undertake the retail distribution of its own power, serving the market left open by the demise of the lessee company.

As a matter of fact, this discussion is theoretical rather than practical. The demand for these power manufacturing companies is continually increasing and, with the obvious advantages of their economical production, they are destined to play an important part in the plans for interconnection of the nation's power supply.

We have been discussing an essential, well-organized industry enjoying a monopoly reasonably regulated, with an ever-increasing demand for its product, no inventories, sales for cash, having its customers as part owners, and provided with entirely adequate instruments for financing its ever-increasing requirements. Who would be so bold as to set any limit on the future development of service apparently forever essential?¹

¹This lecture was delivered November, 1924.

SELF-TEST QUESTIONS

1. Define the term public utility. How has the concept of a public utility changed since the coming in of the industrial era and why?
2. What business do we have in mind when we speak of "public utilities"?
3. "The public has a double interest in the public utilities." Explain.
4. What are the "reasonable rates" for public utility service? What have they to do with public utility investments?
5. Should utility rates pay a fair return on original investment or cost of reproduction? Why do you answer as you do?
6. If utility earnings are limited to 8% on fair value of property, how does the problem of raising new capital differ from that faced by an industrial corporation?
7. Answer the same question in connection with the problem of retiring debt.
8. It is alleged that a public utility assumes less business risk than the average industrial and commercial concern. Do you agree? Why or why not?
9. Why is monopoly desired by society in the case of the public utilities? Why not in the case of steel production or meat packing or shoe manufacturing?
10. Are all forms of competition eliminated in the case of the public utilities?
11. Have the utilities become more or less efficient during the past 10 years? What of it for our purposes? Does your answer apply to all utilities?
12. What is a holding company? Why is it advantageous in organizing, controlling, and financing public utilities?
13. What should be the proportion of ownership capital to debt in a public utility? Of debt to gross earnings? Of net income to interest charges? Of bonded debt to fixed property values?
14. What are the functions of public utility regulatory bodies?
15. How have the utilities reduced risks of poor earnings?
16. What is your estimate of the risk of public ownership and operation of public utilities?
17. Explain modern tendencies in public utility bond issues.
18. List and explain the factors you would consider in analyzing a public utility bond.

XIII

INDUSTRIAL BONDS

By EDWARD J. BIRMINGHAM

Chicago Resident Partner, Dillon, Read & Co.

Census classification of manufacturing enterprises. Typical bond issues of these classifications. Wide variety and great number of industries. Comparison of analysis of industrial and of utility, railroad, and municipal securities. Internal causes of fluctuations in industries: product, markets and location, management. Example of changes in product. Effect of modern inventiveness. Balance between labor cost and capital cost. Influence of the business cycle. Nine causes of industrial financing: new business, funding of floating debt, refunding, working capital, merger, construction, "sell-out" financing, tax and policy financing. Principles in determining security of principal and income. Necessity of gradual retirement of principal. Scheme of analysis of industrial financial statements: size of borrowings, "going concern," liquidity, current position test, "acid test," relationships between assets and liabilities. Example of analysis of industrial financial statement.

THE United States Census Bureau divides manufacturing enterprises into 14 classifications. This classification is made for census purposes, and, while it is not fully comprehensive of all industrial enterprises, it can serve an excellent, practical purpose as a beginning point for a discussion of industrial securities. Accordingly, I have listed herewith the 14 Census classifications of *manufactories* and after each classification I have, in most cases, named two specific bond issues typical of that respective class, which are as follows:

- | | |
|-------------------|---|
| 1. Food | A. Pillsbury Flour Mills Company, 20-Year 6's, 1943. |
| | B. Swift and Company, 5's, October 15, 1932. |
| 2. Textile | A. Webster Mills, 6½'s, and so forth. |
| | B. Shausheen Mills, 10-Year 7% Notes, October 1, 1931. |
| 3. Iron and steel | A. United States Steel Corporation, Sinking Fund 5's, 1963. |

- B. The M. A. Hanna Company, Debenture 6's, August 1, 1934.
4. Lumber and its manufacture A. Chicago Mill and Lumber Company, 7% Notes, 1931.
B. Long-Bell Lumber Company, First Sinking Fund 6's "A," July 1, 1942.
5. Leather and its finished products A. General Leather Company, First Mortgage 6½'s, May 1, 1939.
B. Central Leather Company, 20-Year Gold 5's, 1925.
6. Paper and printing A. International Paper Company, First and Refunding Sinking Fund 5's, 1947.
7. Liquors and beverages A. The National Breweries, Limited, First Sinking Fund 6's, July 1, 1939.
B. The Welch Grape Juice Company, First Convertible 6's, August 1, 1931.
8. Chemicals and finished products A. The American Agricultural Chemical Company, First Convertible 5's, 1928.
B. DuPont Powder Company, 30-Year 4½'s, 1936.
9. Stone, clay, glass products A. Illinois Glass Company, 10-Year Debenture 6's 1933.
B. Newaygo Portland Cement Company, First Collateral 6½'s, June, 1938.
10. Metals and metal products other than steel and iron A. American Smelting and Refining Company, First Mortgage 6's, "B," 1947.
B. Anaconda Copper, First 6's, 1929.
11. Tobacco manufactures A. Liggett & Myers Tobacco Co., 7's 1944.
B. P. Lorillard Company, 5's.
12. Vehicles for land transportation A. Maxwell Motor Corporation, 10-Year Convertible 7's 1934, Redeemed January 1925, at 105.
B. The Baldwin Locomotive Works, First 5's, 1940.
13. Railroad repair shops Generally owned by railroad companies.
14. Miscellaneous A. Goodyear Tire and Rubber Company, First 8's, 1941.

Even this long list does not include a large number and variety of enterprises, the securities of which are widely outstanding in the hands of the public and are classified by business custom as belonging to industrial financing. The Census list does not include such important distributive enterprises as Marshall Field and Company, the J. Rosenbaum Grain Company, the great mail-order houses, and the chain stores. If such a distributive classification were added, it would at once give a key to the universal complexity and intricacy of industry and industrial financing. No two of the four types of distributive concerns just named operate their businesses alike. Although they all may be termed as in the class of purely distributive enterprises, each has entirely different operating processes and problems. Consequently, their financing must be considered from individual and separate view-points.

Nor does the Census classification include all the extractive industries, such as mining and oil. Here, again, any comprehensive classification or financial consideration confronts the many complexities and variables that are inherent in the great field of industrial financing. For example, the oil industry is divided into four main divisions, which are, producing, refining, transportation, and marketing. Each of these has its own peculiar problems in erecting a sound financial structure. Further, these problems may be greatly changed, as any one oil company may embrace two or more of these divisions in its operations. Generally, it might be said that the large, well-managed companies that embrace all four functions have greater stability because of the size and diversification of their holdings. Yet we have companies that confine themselves largely to one or two functions, such as refining and marketing oil products, and are very successful. Standard Oil of Indiana is a case in point.

The marine transportation field, which business classes as among the industrials, is also omitted from the Census classification. An example of such an enterprise is the International Mercantile Marine Company.

These omissions from the Census classification are mentioned in no sense as a criticism, but solely to emphasize the universal complexity that is instantly apparent when one endeavors to discuss industrial financing. There is no rule of thumb that you can apply to industrial financing. It is true that the financial instrumentalities used are few and well known. They are simply mortgage bond issues, debenture bond issues, short-term note issues, bank loans, preferred stock, and common stock. Further, these instrumentalities provide, if properly used, all the flexibility necessary to the sound financing of any enterprise according to its deserts. It is solely a problem of determining what kind of financing is justified by the status of the individual company and the external situation of the particular industry involved. Adopting the kind of financing and the proper ratios within that financing to the justifiable requirements of the company is the whole proposition, to the end that the enterprise will gain from its financial structure every legitimate support and the investor receive every safeguard due him. The difficulties in applying this seemingly simple procedure to industrial financing are huge because of the wide and constantly changing differences throughout all industry. Even in the same line of business the financing of one sound company may make wholly different requirements than the financing of the equally sound and competing company across the street. Examples of this situation will be found in the shoe and clothing industries, which will be mentioned later.

INDUSTRIAL SECURITIES NOT SO SUSCEPTIBLE TO STANDARDIZED ANALYSIS AS ARE UTILITIES AND RAILS

As has been pointed out, one cannot easily classify the industrial field. Public utilities may be divided into electric light and power, electric railways, gas, water works, and telephone and telegraph. Municipal bonds also follow well-defined divisions. In utility or in municipal bond issues,

respectively, all have a great deal in common so that often a general rule may be applied in forming a reasonably intelligent opinion of their soundness. The bonds of one public utility may be issued under very similar conditions to the bonds of another public utility; certain general practices apply to a great many civil loans, or municipal bond issues. Also, there is an analogous situation in railroad securities. Railroad companies do their business with similar equipment and similar rates, under similar regulations, and with similar policies as to capital expenditures, and so forth. This is also true with public utilities. But with industrial companies it is not too broad an assertion to say that there is no standardization for operating and financing as in utilities and railroads. Further, there are as many kinds of products, equipment, and policies in manufacturing, selling, and developing an industry as there are companies. It is this highly complex situation that makes industrial financing difficult, and, by the same token, intensely interesting.

It is not the thought of the author to suggest that utility, municipal, and railroad financing do not require the highest type of professional skill in finance. They do require all that. This comparison is made in order to bring home the salient fact that industrial financing is utterly different from the other divisions of finance. It is not as a whole susceptible to general, standardized analyses as are the other divisions of business. Each industrial enterprise must be considered first as a separate thing apart from everything else, and then, as to how it is affected by everything that touches or may touch it. Modern industry has only recently been able to provide the training necessary for its management. We have advanced and learned hugely as to industrial management in recent years, a condition that will add greatly to the stability and development of future industrial development. To insist that industry has more problems and more varied difficulties than have other divisions of business is not to malign industry. It simply indicates that industry and industrial financing are highly specialized.

INTERNAL CAUSES OF FLUCTUATION

The elements of an industrial enterprise may be divided into three heads, which for convenience we shall call the three elements of business:

1. Those having to do with physical production; namely, the quality of the product itself, the efficiency of the plant, and the labor supply;
2. Those having to do with the marketing of the product; that is to say, the company's nearness to markets and the competition it faces;
3. Those having to do with management.

Let us illustrate how each of the above elements may be affected and, through them, the business as a whole may be affected:

1. *Product.* The product may be a specialty and go out of fashion. Or a substitute may be invented or developed. There may be a shortage of raw material or labor. Patents may expire or be rendered less valuable because of superior patents owned by a competitor. Or plants may become obsolete or be destroyed.

2. *Markets and Location.* A location which is good in one decade may not be so advantageous in the next decade. An example of this is the development of cotton mills in the South, in competition with those in New England. Locations likewise may move, and competition always sooner or later arises to strike at a successful venture.

3. *Management.* The mainspring of the industrial enterprise is management, which is the agency that foresees and wards off calamities and takes advantage of favorable conditions. Management, being human, is exposed to all the ills that flesh is heir to. The sound industrial risk not only will be well fortified as to the suitability of its product and the position in its markets, but will also be supplied with reserve personnel that can carry on the management in case of mishap to the present management.

EXAMPLES OF CHANGES IN PRODUCTS

Perhaps some actual examples of industrial history may quicken the points just outlined. One of the contingencies mentioned was that the product may go out of fashion. That was what happened in some degree to the hair net industry when bobbed hair became the vogue. The manufacturers of corsets, who had for generations been making that article of wearing apparel with little thought of its being greatly changed or discarded, were also affected by the corsetless fad of a year or so ago. This situation may lead some one to create a rule of thumb for industries and to say that the farther an industry gets from producing necessities of life the greater its risks. Such an assertion absolutely does not fit.

For example, consider cooking fats; they have been a necessity ever since the dawn of civilization. For centuries these fats had consisted solely of certain accepted vegetable and animal fats. There had been scarcely any change in these food products generation after generation. But only about 25 years ago a large organization successfully took a waste product, cotton seed, and therefrom produced a cooking fat that made heavy inroads on the lard business of the packing-houses. The company developed the product and then popularized it. It attained success and greatly changed the industrial map, so far as cooking fats were concerned. Nor did that affect chiefly the packer. To show how far such industrial changes may reach, it may be said that the popularizing of vegetable fats made a drastic change in the farming industry of the Corn Belt. The lard-type hog had dominated in the business of producing swine. With the wider use of vegetable cooking fats, the lard-type hog began to disappear and to change into more of a bacon-type. Today if the blue-ribbon hog of 25 or 30 years ago could return to his old haunts in the Corn Belt he would not recognize the strange new animal that his great-great-great-grandchildren have become. Instead of the flat-back,

lard-type hog of 25 years ago we now see the perfection in swine production to be the thinner, rainbow back, largely because the advent of cotton-seed oil and other vegetable cooking fats has changed the market for lard as a cooking fat. Striking examples of this nature are common to every line of industry, for competition is many-sided, is direct, indirect, and unceasing.

This kind of competition virtually never ceases. Cotton-seed oil came into recognition and then in a few years came another competitor, peanut oil. And the competition from this new comer was sufficient to embarrass at least one large company. It was equipped to produce cotton-seed products and to compete against lard and other widely used fats, but it was not fully prepared for the competition of this new oil. Suppose, further, that soy-bean oil and coconut oil find improved uses, what then may happen in the business of supplying this common and universal necessity, cooking fats, or to the other industrial uses of animal and vegetable oils?

Going back still further in this battle of the oils, when in 1859 a man named Drake drilled at Titusville, Pennsylvania, the first oil well, which was scoffingly dubbed "Drake's Folly," the development that put the whaling ships out of business had begun.

NO PRODUCT IS PROOF AGAINST MODERN INVENTIVENESS

Change in products or the style of products is a constant competitive force throughout all industry. Leather has for thousands of years been one of the most useful and necessary articles to civilized man's existence. Yet little more than a year ago the leather manufacturers found it desirable to appropriate \$300,000 for an educational advertising campaign to counteract the use of rubber and similar compositions in shoes, beltings, and other articles. The developing of the rubber industry brought out a strong competitor against leather. The developing of rubber substitutes brought out strong competitors against rubber.

THE BALANCE BETWEEN LABOR COST AND CAPITAL COST

The effect of the labor variable has been so apparent, especially during the war and post-war years, that little need be said of it here. One point, however, is so vital that it should be emphasized; that is, the relation between labor cost and capital^{re} cost.

This relationship does not usually exist in exactly the same ratio in different businesses, nor in the same business in different stages of its development. An officer of one of the great utilities recently said that for every person employed in the telephone business \$6,000 worth of equipment was required.

It is apparent that such ratios are pretty well established in the telephone business and in other utilities and that they may be applied feasibly to any of these respective utility enterprises. But unless an industry carefully ascertains the ratio between labor cost and capital cost and then as carefully maintains the proper ratio it is likely to encounter losses in trying to expand. This ratio is so much a variability in different industries that it cannot be determined for the whole field, but only for the individual industry or very similar enterprises. Profits do not always grow as a business grows, and this factor, the balance between labor costs and capital costs, is one of the chief reasons for such a condition. This situation was also apparent during the war when a number of companies took war contracts at figures that seemed to promise huge profits. They reasoned that by expanding equipment or labor, or both, the job could be done easily. But they failed to recognize or to maintain the balance that had made their businesses profitable. As a result many large corporations earned considerably less than they had anticipated and a number of small concerns lost heavily.

This subject will be found discussed more ably in the third volume of A. S. Dewing's *Financial Policy of Corporations*, in the chapter on "The Law of Balanced Return. The author also recommends the reading of *Financial and Operat-*

ing Ratios in Management by James H. Bliss. Bliss states most clearly and comprehensively, the absolutely vital importance of analyzing and determining the relationships between all the financial and operating elements in an industry.

Too much time cannot be consumed in discussing the operating end of industry, for it is on successful operating that industrial financing is built. Unless the banker can determine the ability of an enterprise to operate successfully he cannot hope to justify his financing the company. Before the banker can justify a bond issue he must have an internal and an external audit of the company. By this is not meant merely a series of balance-sheets, income statements, and appraisals. Those, of course, are essential, but the banker must have a thorough understanding of the many relationships that exist between and among the many elements of the business. This includes the relation of net profits to net worth and to volume of business, relation of operating profits to capital and to volume of business, turnover of fixed capital investment, of inventories, receivables and total capital, and many other balances between cost, operations, and income factors.

A part of the foregoing may be illustrated by a reference to a peculiarity of the automobile manufacturing business. The second-hand clothing or shoe business does not measurably affect the clothing or the shoe manufacturer, but in automobile manufacturing quite the contrary situation exists. Competition compels the manufacturer to add new improvements constantly. These improvements appeal to many owners of cars. The manufacturer, or his agents, therefore, have their selling problem put on an entirely different basis. Their ability to sell new cars depends to a large extent on their ability to sell used cars, which are traded in as part payment on the new cars. Obviously the new cars in stock are inventories. Shall the manufacturer or dealer have a slow turnover of these inventories and thus increase his capital by having it tied up through a longer period, or shall he sell these inventories more quickly for

part cash and "trade-in" used cars and thus take on another kind of inventory in the form of used cars? Thus with every trade-in he must have an additional turnover. What is the relation of these two turnovers to his capital cost, to his operating cost, and so forth?

INFLUENCE OF THE BUSINESS CYCLE; EXTERNAL CAUSES OF FLUCTUATION

Added to all these internal variables is an external variable, the greatest variable of all—the business cycle, which is entirely outside the control of the management. If business is brisk and people are optimistic, the turnover of the industry will show it, and if prices are advancing, the business will show a profit through a gratuitous increase in value of goods on hand during the period of manufacture. This results in a profit which has nothing to do with the manufacturer's ability or with the efficiency of his plant or the organization of his markets. Conversely, a period of depression and declining prices will decrease the company's profits and possibly injure its securities unless they are conservatively protected.

Thus it will be seen that the internal factors affecting a railroad or public utility security are much more within the control of the management than is the case in an industrial, and the external factors affecting a railroad or public utility—since they are more or less in the nature of a monopoly—are far less likely to have a favorable or adverse effect than is the business cycle in the case of an industrial. The foregoing is an outline of the reasons why the gain to a discriminating investor in industrials is large, and why, conversely, industrial financing should be confided only to the most skilful hands.

NINE CAUSES OF INDUSTRIAL FINANCING

Having outlined the nature of industrials, let us enumerate the causes which give rise to the issuing of industrial securi-

ties. In speaking of industrial securities we shall speak of only those classes handled by investment bankers; namely, bonds, notes, and stock. The causes giving rise to issues fall into nine categories, as below:

1. *The Launching of a New Business.* In a new business the variables mentioned above are so accentuated and the unknown elements so large that except in extraordinary cases we can dismiss the financing of new enterprises as outside the sphere of the investment banker.

2. *Funding the Floating Debt.* This is the converting of current liabilities into long-term liabilities and is usually the result of the concern having borrowed on short-term for the purpose of acquiring inventory and then finding that it could continue profitably to use the money in the business. There have been many examples in the last five years of concerns that have borrowed on short term to finance current purchases of merchandise and then have not been able to dispose of the merchandise, due to falling market. This is often called inventory financing.

3. *Refunding.* This is to provide money to pay the principal amount of bonds about to be due and may be described as "borrowing from Peter to pay Paul." Such an operation does not add to the company's liabilities and is usually a sound *prima facie* reason for issuing securities.

4. *To Obtain Working Capital.* If it is clear that the additional working capital is for handling increased business and not for the purpose of funding losses incurred through mismanagement, financing for additional working capital is usually a sound basis for borrowing.

5. *Merger Financing.* This is the issuing of securities to raise money to buy competing or auxiliary concerns. It is the application of the old principle, "In union there is strength," and the security of bonds for this purpose usually resides in the strength of the component companies individually, plus the economies effected by consolidation.

6. *Financing for Construction of New Plant.*

7. *Sell-Out Financing.* This is the case where a major stockholder wishes to retire from business and take capital with him. The question of future management—always of prime importance—now becomes paramount.

8. *Tax Financing.* This class of financing is more pertinent to discussion in the lecture on bonds in relation to taxation. It is sufficient to say here that under the Income Tax law capital gains accrued since 1913 may be realized at a tax of $12\frac{1}{2}\%$ and the proceeds invested in tax-exempt securities, the net result being that at a sacrifice of $\frac{1}{8}$ of his principal the owner may obtain complete immunity from future taxation—except inheritance taxes—as to the remaining $\frac{7}{8}$. It is apparent that in the case where the owner's income tax falls into the higher brackets this operation may be highly profitable to him. A frequent manner of accomplishing the end is for the company to sell the bonds and distribute a capital dividend from the proceeds.

9. *Financing to Create a Market.* This is the case where the owners of a closed corporation deem it advisable to create a market for its stock by selling part of their holdings and investing the proceeds in other securities. Another means of accomplishing the distribution of risk is by the selling of bonds as described under "Sell-Out Financing" above, and distributing proceeds to stockholders in the form of a capital dividend.

DISCUSSION OF THE PRINCIPLES OF SECURITY
OF PRINCIPAL AND OF INCOME

At this point it will be well to digress and review a previous chapter relative to the meaning of the word "security" as applying to industrial bonds.

Suppose a commercial banker is asked to make a loan of \$100,000 for 60 days secured by 100,000 bushels of wheat in warehouse. This is a sample case of security of investment

without the question of earnings entering at all. The banker's investment is \$100,000, and his interest will amount to about \$1,000, making a total of \$101,000. The wheat is worth about \$150,000 and he therefore has an equity of \$49,000 over his loan. It is extremely unlikely that the wheat will decrease in value by that amount in 60 days, at which time he may demand repayment of his loan and if payment is not made, he may sell the grain; consequently he is not especially interested in whether the borrower makes profits or not.

Suppose, again, the banker is asked to make a loan of \$100,000 maturing in 10 years, secured by mortgage on a plant which now has a salable value of \$150,000. Here, although the figures as to amount and security are identical, the cases are radically different. In addition to the principal amount due in 10 years there are 10 instalments of interest of \$6,000 each, making a total of \$160,000 or \$10,000 in excess of the present value of the plant.

The banker cannot tell what will be the salable value of the plant in 10 years. The real estate on which it stands may have appreciated in value but the real estate under a plant usually represents only a low fraction of the total investment, and the chances are that the building and equipment will have depreciated far more than the land has appreciated, and the salable value as real estate and building will almost certainly be materially less after 10 years.

This brings up the question—which does not appear in the grain loan—of earnings. If the plant can make good money, it has a going-concern value which amounts to more than the price of the land, bricks, and pieces of machinery that compose it separately. If it cannot make good money, it has no value more than what will be paid for the land, bricks, and machinery as such; in other words, junk value. It is therefore an elementary requirement that earnings, after setting aside a fund to take care of depreciation through use and age, shall have been and shall show reasonable expectation of continuing to be greater than the interest charges. Ordi-

nary prudence—having in mind the variable nature of industries—demands that such earnings be several times greater than interest charges.

NECESSITY OF GRADUAL RETIREMENT OF PRINCIPAL

Furthermore, still having in mind the variable nature of industries, prudence dictates that the borrower will be required to repay the loan piece by piece, and not be faced with the necessity of raising the entire sum at the final due date. This is no more than right, because the lender is entitled to expect repayment as the security under his loan wears out, and as the borrower makes money from the use of the plant. This gives rise to the sinking fund, as in—for example—United States Steel Corporation 60-year 5's in which annual drawings at 110% of par will entirely amortize the issue before due date in 1963; or, Goodyear Tire & Rubber Company First Mortgage Sinking Fund 20-Year 8's which must be retired through a sinking fund of, principal, \$750,000, premium, \$150,000, total, \$900,000, each 6 months to draw the bonds at 120, thus extinguishing the loan in 40 equal instalments. A similar device is the serial bond, such as the usual railway equipment issue in which different bonds mature in different years.

The question of earnings is vitally important not only to the meeting of interest but to the retirement of principal, for sinking-fund or serial payments, as described above, can be met only either out of current earnings or by eating into existing assets. This makes it the part of prudence to be sure that the earnings have been and may reasonably be expected to continue substantially greater than interest and debt retirement needs together. If such is the case the borrower will be able to repay the loan without doing injury to his business, resulting from eating into existing assets. Looking at the sinking-fund question another way, suppose the financing were for the purpose of merger or expansion. If the sinking fund is not covered by earnings, repaying the

loan could be done only by liquidating the assets which the loan had been issued to acquire, and the entire transaction might be useless.

SCHEME OF ANALYSIS OF INDUSTRIAL FINANCIAL STATEMENTS IN GENERAL

A thoroughgoing plan of analysis is, of course, impossible within the scope of this chapter. We shall, however, outline a general scheme of procedure for examining the financial statements of industrial companies, which will lay down general principles only and may be useful to those wishing to pursue the study further. At this point let it be said that only financial statements certified to by reputable firms of certified public accountants should be used. Such statements can be relied upon to have been set up in accordance with accepted accounting methods.

The first question to be answered is: "Is the company borrowing too much money?" In ordinary life, irrespective of what a man's merit may be, bankers will not lend him very much if he is poor, and similarly in business, bankers will demand that the owners have a very considerable stake in proportion to the money they are borrowing through bonds or otherwise. The owners should have a large investment not only to show their faith, but also to provide reasonable assurance that if there is trouble the stockholders will make a strong effort to save their property. To find out the proportion of the owners' interest to creditors' interest, add up the capital and earned surplus and compare the sum with the total of all debt items, such as accounts payable, bills payable, accrued interest and wages, taxes and funded debt. The sum of capital and earned surplus, commonly called invested capital, or Net Worth, should bear a large proportion to the total debt. A rule of thumb says it should be at least equal; but this, of course, is subject to variation in different businesses.

The second question to be answered is: "Is the concern

going forward or backward?" If a banker hears that an individual is making money and paying off his debts, he is inclined to believe him a safe risk for a further loan. Similarly, if he finds, by comparing the balance-sheets of successive years, that a company's invested capital or Net Worth as related to its borrowings has grown larger from year to year, he feels reasonably sure that it is well managed, its policies are all right, and that its capital is profitably employed.

The third question to be answered is: "Is the company in a liquid condition?" There are three tests designed to answer this question:

1. The first and most commonly used is the so-called current position test, in which the sum of the amounts represented by cash, accounts and notes receivable, and inventory, is compared with the current liabilities or sum of obligations which have to be met within a short time, usually within a year; these appear on the liability side of the balance-sheet under accounts payable, bills payable, accrued interest, wages, taxes, insurance, and so forth. Conventionally it is said that current assets should be twice current liabilities, but this relationship is obviously subject to wide variation with the type of business. A grain or a cotton trading business whose inventory can be turned into cash in a day is stronger with a current position of $1\frac{1}{2}$ to 1 than is a millinery manufacturer or a dealer in heavy machinery whose inventory has to wait for a market.

2. Another test of liquidity is the so-called acid test. "Acid test" is purely a conventional term. If the sum of the company's cash and receivables equals or exceeds entire current liabilities, the company is said to pass the acid test. Experience has shown that if several successive annual balance-sheets of a concern meet the acid test it is reasonably sure that the company can meet any obligations it is likely to incur.

3. The third and most exacting test of liquidity is the re-

relationship between current assets and total debt, current and funded. If current assets exceed total debt, two things are evident: first, that there are quick assets on hand sufficient to meet all contingencies; second, that in case of liquidation the creditors can be paid off out of readily realizable assets, leaving the stockholders the fixed and less readily realizable assets to take care of their claims.

If an examination of several successive balance-sheets shows them satisfactory under the above tests, and if the earnings in relation to fixed charges are satisfactory as described above, the chances are that the bonds of the company in question are good.

SCHEME OF STATEMENT ANALYSIS APPLIED
TO AN INDUSTRIAL COMPANY

To apply the principles enumerated above, the published financial statements of one of the larger packing companies for the years 1921 and 1923 will be analyzed, in an effort to determine the soundness of the company's 5% sinking fund gold notes of 1932. The balance-sheets of those years, condensed, are:

<i>Assets</i>	1921	1923
Cash	\$ 12,067,487	\$ 7,934,409
Receivables	121,365,892	107,697,908
Inventory	93,771,465	90,653,967
Total Quick Assets	<u>\$227,204,844</u>	<u>\$206,286,284</u>
Fixed and Other Assets Less Reserves	<u>123,643,349</u>	<u>120,759,100</u>
	\$350,848,193	\$327,045,384
<i>Liabilities</i>		
Current Liabilities	\$ 45,184,703	\$ 35,983,057
Funded Debt	<u>93,923,500</u>	<u>77,088,500</u>
Total Debt	<u>\$139,108,203</u>	<u>\$113,071,557</u>
Net Worth	<u>211,739,990</u>	<u>213,973,827</u>
	\$350,848,193	\$327,045,384

By comparing the items in the above balance-sheets we find that the company's total borrowings were only 66% of

invested capital in 1921, which is ordinarily considered very satisfactory in a staple industry such as meat-packing, and further that by 1923 borrowings had decreased and stock equity had increased, so that their total borrowing had declined to 53% of invested capital. This gives evidence that the owners (1) have a substantially large stake in the business, and (2) that the owners have pursued a policy of paying off debts and allowing earnings to remain in the business. These balance-sheets also meet the tests as to liquidation: (1) current assets in 1923 were \$206,286,284, or 5.7 times current liability; (2) making the so-called acid test, it is found that cash and receivables alone amount to \$115,632,317, or vastly in excess of current liabilities of \$35,983,057; (3) quick assets, \$206,286,284, are greatly in excess of total debt, current and funded, which amount to \$113,071,557. From the foregoing it will be inferred that there is good security of principal for the notes and of course for the underlying 5% first-mortgage bonds.

As to security of earnings, the company does not publish separately the earnings available for interest, but it is reported that earnings available for stock have averaged \$7,482,422 for the last five years. Interest charges on the current notes and the first-mortgage bonds outstanding as of December 31, 1923, amount to \$3,854,425. Adding this figure to the amount available for dividends makes \$11,346,847 available for all bond interest after all charges. Present interest charges have thus been earned about three times on a five-year average, which again is generally considered conservative for a staple industry.

Having demonstrated that there is ample security of principal and margin of earnings, it remains to be determined whether the company can meet the retirement provision of its bonds without impairing existing assets. The first mortgage sinking fund provides for a retirement of \$667,400 annually, and of the notes \$500,000 annually must be retired, making a total of \$1,167,400, exclusive of premium. There has been an average of \$7,495,422 over and

above bond interest during the past five years (bond-interest requirements not having changed materially during that time) so it is evident that the past history of the company gives ground for believing that sinking-fund as well as other charges will be covered.

An analysis of this sort, dealing with the financial aspects only and not touching on management, raw material, product, labor, markets, and the business cycle—except inferentially—is what the bond man most frequently encounters. It is necessary, however, that he inform himself upon all circumstances under the above headings, to have an intelligent opinion as to the securities in which he is interested.

SELF-TEST QUESTIONS

1. How comprehensive is the Census classification of manufacturing enterprises? Name important industries not in this classification.

2. What are the financial instrumentalities used in industrial financing?

3. Compare difference in analyzing industries with utilities, railroads, civil loans.

4. What is meant by "internal causes of fluctuation?"

5. Give 10 examples in changes of products. What are the principal causes of such changes? What bearing has this on the soundness of industrial securities?

6. Define, "the balance between labor cost and capital."

7. What is meant by "internal" audit?

8. What is meant by "relation of net profits to net worth?"

9. Why does the automobile business have an extra turnover, as compared to the shoe or the clothing business?

10. What are the nine causes of industrial financing?

11. Why is the financing of a new business usually without the sphere of the investment banker? Discuss this at length.

12. What part have earnings in supplying security for principal and interest? Are they of importance in every loan?

13. Why is gradual retirement of a debt desirable?

14. Explain the scheme of analysis of industrial financial statements in general.

15. Is the examination of one balance-sheet sufficient?

XIV

REAL ESTATE AND BUILDING BONDS

By CHARLES R. HOLDEN

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Definition of mortgage. Growth of real estate and building mortgage financing. Distinguishing characteristics of real estate mortgage bonds. Proper basis of real estate bonds. Security rests primarily on land values. Distinction between general uses and special uses of buildings, as relating to real estate financing. Loans on vacant property. Standards of real estate values. Determining building costs. Valuation computed on cubic feet of building; on income from property. Contents of application form for real estate loans. Review of and check on the loan. Real estate loans on farms.

A MORTGAGE is the transfer of property, either real or personal, as security for the payment of a debt. The large building program which has been in progress in Chicago and other cities almost continuously, with the exception of an interruption of several years during the World War, has created a continual demand for funds to finance such building. Along with the march of progress the buildings were increased in size, and on account of their greater cost it became necessary to divide a first mortgage so that several, or a number of, people could purchase certain portions of the mortgage. These portions are made up and called first-mortgage real estate bonds. The mortgage securing the bonds provides that all bondholders share alike in the security.

The person or corporation desiring to construct a building generally requires the assistance of a bank, trust company, or loan company to complete his building. In some cases where the building owner is capable of building his building with his own funds, he nevertheless places a loan on

the building in order to conserve some of his own resources to enable him to build more buildings or use his funds for other purposes.

A mortgage or mortgage bond issue, if carefully and conservatively made, is a very good form of investment. The conservative mortgage security has well stood the test of times of financial disturbances, such as the panics of 1893 and 1907, also the Spanish-American and World wars. The real estate mortgage, or mortgage real estate bond, is one of the least fluctuating investments and is subject only to the rise or fall of interest rates which occur at intervals greater than the average length of a mortgage. It is, therefore, well for the careful investor to include in his holdings a goodly percentage of this class of security.

The mortgage bond is a part of a real estate mortgage so split up that an investor in a \$100 bond, a \$500 bond, or a \$1,000 bond may have an opportunity of investing his money the same as one who may be able to purchase mortgages in larger amounts. The mortgage or mortgage real estate bond is one of a number of ways to make investments. There is as much safety in this class of security as in any investment, provided the mortgage has been properly prepared and made not to exceed the limit of safe percentage of the entire value of the security under the mortgage.

DISTINGUISHING CHARACTERISTICS OF REAL ESTATE BONDS

In an extended course on investments to make a distinction between the subject of real estate and building bonds and other subjects studied, calls for a further definition which shall be *inclusive* of the possible content of a subject so entitled and be *exclusive* of other subjects covered under other titles of the course.

To distinguish what will be discussed as a real estate bond, or a building bond, from bonds issued under a cor-

poration mortgage, from industrial bonds, and from public utility bonds, calls for a definition as follows:

A bond should be classed as a real estate bond, or a building bond, where the credit extended rests primarily on the value of the land or of the building independent of its use or fitness for the conduct of any business of producing goods or rendering service.

The real estate bond or building bond should rest on the self-contained and inherent earning and sale value of the real estate and improvements thereon. Earning power, particularly of improved real estate, is, as will be seen, an important consideration; but that earning power must be restricted to general availability for use as a place of residence or a place for transacting business of a general character. The personal element either of personal credit responsibility or of the successful prosecution of any line of business, must be a very minor element in the value of a bond termed a real estate or a building bond.

Again, there should be eliminated from this classification, bonds on properties so located or so improved that they depend for earning power and for sale value on the use thereof in a special line of business. For illustration, one should exclude bonds on garages, on theaters, on buildings largely taken up by public halls, club buildings, churches, and all but the most generally adaptable types of manufacturing buildings. Even store buildings must be excluded when they are of a type or size that both earning power and sale value rest on any basis narrower than the broad general demand for retail store accommodation. This means in a practical way the exclusion in most cases of buildings erected for store use alone, having no apartments or living quarters occupying part thereof.

The reason for making such exclusion of certain types of store buildings is twofold:

1. Because a building of any considerable size, constructed solely for use by a store or stores, will very often

be found to require a loan based on a high valuation of both land and building. Such a building is usually erected on a street or location having, from a cause that may be temporary, large numbers of people coming upon it. It depends, for the values it is carrying, upon the support of elements outside of its own content. It may, in five or ten years, be practically as serviceable and good a building, but the trade that gave it a high value may have passed on to other localities.

2. Because stores of unusual type have only a limited number of possible occupants.

Thus, a sound real estate or building bond is seen to be the most conservative and least fluctuating form of secured investment. It should not vary materially from par value, either in proceeds available to the borrower or in the price at which from time to time it may be sold by a holder. It should command such a stable market that a house may safely make it a policy to repurchase such bonds at but a slight discount from customers who find it necessary to reduce the bonds they hold to cash. But such a policy should not be advertised or made the basis of any departure from the sound rule that such conservative real estate and building bonds should be bought and sold as permanent investments, and not with a view of depending upon finding a ready market for their resale at any time.

This should be noted as a very important distinction between such real estate and building bonds and industrial or utility bonds. This class of security should be put out through investment houses, or through organizations that will develop and maintain a reasonably broad market for them—not one assured to return cost—but one that will mean a cash market at what on business conditions such a bond should sell for from time to time.

No one engaging in the handling of investment securities can well expect to limit his business to the handling of

such real estate and building bonds as have been described. He will find larger margins of commission, larger fields for operation, more speculative chances for himself and his customers for either gain or loss in other kinds of bonds.

But he should build up and count upon and continuously strive to educate that class of investors who prefer and who should invest in the sound type of investment represented by the genuine real estate or building bond. Save at rare periods when speculative desire for large interest or profit returns temporarily distract that class of investors, it forms a stable, fundamental volume of business, less affected by current money conditions and financial disturbance than any other securities.

It may sound contradictory and confusing first to classify sound real estate bonds as those which do not rest on income from business or a special use, and then insist that such a bond to be sound must rest on property producing a sound income.

A real estate bond on vacant real estate is like a commercial loan on raw material which requires special and expensive treatment to make it a marketable staple; such an article, for example, as uncured tobacco, uncured raisins, uncleaned and ungraded wheat. Such vacant real estate has prior liens against it of taxes to accrue, possibly special assessments for development, and so forth. It involves, therefore, a partnership in the sale or the further improvement of such real estate to make a loan thereon. Such a loan really rests on prosecution of the special business of selling real estate, which is often one of very slow turnover.

In this view of the real estate loan, it is then further restricted to the loan upon property already improved, or which will be improved through application on building of the proceeds of the loan.

The making of such a loan on a sound basis, or the purchase of such a loan on a like basis is, of course, a prerequi-

site to the successful sale of the loan so acquired. One's salesmanship will not be sound, nor will it build up a permanent body of customers, unless one can tell with confidence that the loan is actually sound and safe.

REAL ESTATE VALUES AS A BASIS

To determine these factors as to a loan requires knowledge, experience, and a broad view of both real estate and building values.

The knowledge of real estate values which must be acquired and kept up to date by persistent and patient observation of every transaction which occurs is of two general classifications.

1. In every city or community there are certain standards of value which expert real estate dealers use to aid them in fixing valuations. This may be available figures as to values assessed for taxation. The standard may be found in local publications giving basic valuations. In some cases a basis of valuation must be computed from the facts as to recent transactions. In all cases the actual present value must be computed by adding or subtracting from the appraised or published general valuations such percentage as local experience has agreed upon as the variance between such published values and the general average of current values. In nearly every locality, and especially where real estate dealers are well organized, there will be generally accepted rules for considering how much more valuable a corner lot should be considered than is an adjoining lot over a certain distance from the corner; also what valuation per square foot depends on depth of the lot.

Having become familiar with the current methods and basis of computation of general values in a specified locality or class of property, the valuer must next fully consider all elements bearing on the value of the particular parcel in question.

It amounts to gross carelessness to make a loan on property without actually looking it over carefully and noting its surroundings. Schools, hospitals, objectionable business located nearby, unsuitable neighboring improvements, poor transportation facilities, all may very materially affect the specific value.

Such inquiry and investigation are especially important in considering a building loan. The fitness of the building for the locality as it exists, what danger there may be of its future standard of use being greatly lowered by unsuitable development of vacant property near it, and especially any observable tendency toward a change of the character in color or of race of the local population, are all elements to be considered.

Having then fixed a ground valuation, the value of the building, whether existing or to be built, should be determined. This should be first computed on a standard basis. It will usually be found that custom among experienced real estate men in the locality rests such computation on a cubic-foot valuation. That is to say, for one use—such as apartments—a valuation of so much per cubic foot is estimated. For a store building a different value per cubic foot is used.

The result so reached may be made up on two different estimates of cubic-foot values. One may take first a prejudged standard value of what the building of such size and character should be worth. Then one may take the standard of what the then cost of such a building should be. If then in existence, a depreciation factor for age would be given consideration.

Finally, the more or less arbitrary valuation thus computed should be compared with two other valuations duly formulated. One of these is the sale or cash market value based on recent transactions. The other is consideration of the actual cost, if the building is of comparatively recent construction, or is then being built.

Rather by way of illustration than to give exact figures, the detail of such method will be analyzed. As figures on building cost vary from time to time and in different localities, and these are current Chicago figures, they should not be used without verification and checking, even in Chicago.

COMPUTING BUILDING COST

There are two ways to compute the cost or value of a property. The first is by the way of computing the cost of producing the property. The other is by the income received from the property. The average new apartment building costs about 35 cents per cubic foot to build and finance. Multiply the length by the width by the height from the cement floor in the basement to the roof line of the building, thereby obtaining the cubic contents. Then multiply by 35 cents per cubic foot and you have the average cost of a good apartment or store and apartment building. To this amount add the value of the land, computed as stated above. The sum of the two amounts will give you the total value of that piece of real estate.

If this, then, is the value of the property under consideration, it is yet necessary to consider the element of the income from rents on such property which should be sufficient to give the owner a fair income on such valuation as has been computed.

To make a calculation as to income, proceed as follows: Compute the total fair rents obtainable from the renting of the property for the term of one year. This amount should represent 16 2-3% of the total value of the property. An easy way to figure is to multiply the yearly rental by 6 and the result is the total value of the property. There is another easy and quick way to figure the average apartment building. That is by finding the total number of rentable rooms not counting bathrooms, reception halls, and rooms in the basement. Multiply this number by

\$1,300 per room and you again arrive at a figure near the value of the cost of the building. To this is to be added the value of the land arrived at as explained before. If the total loan on the same exceeds 65% of that amount, you are taking a chance if you purchase the bond. There are better investments to be had in the market. The cubic cost per foot is subject to change should the building face on one of the better grade boulevards, therefore requiring costlier fronts and more expensive fixtures, but the rental income ratio remains the same. If the building is a fire-proof hotel, built on piles or floating foundation, the cost of construction of such building is 60 cents per cubic foot according to present values. If the building is built on caissons to bed-rock, the cost is 75 cents per cubic foot. To this cost also the price of land is to be added.

The average mill-constructed, brick factory building costs 20 cents per cubic foot. If the same building is of reinforced concrete, the cost is approximately 32 cents per cubic foot. The average modern, two-apartment building, 24 feet wide, costs about \$250 per running foot. A building 60 feet deep would cost \$15,000. The ordinary good brick bungalow, 24 feet wide, costs \$160 per running foot from the front to the rear end. These figures are all based on present-day new construction. When the value of an older building is computed, one should use today's figures, deducting therefrom 3% per year depreciation according to the age of the building.

CONTENTS OF APPLICATION FOR REAL ESTATE LOAN

When the basis of valuation has been determined and the principal amount of the loan and the interest rate, commission and other details agreed upon, a written application for the loan and agreement as to its terms should be prepared and executed. Various forms are used by different houses for this purpose.

The form should cover the following items: Ownership, character of title and description of the property, names, residence, occupation, and references of the borrowers. Date of building of improvements and whether plans are furnished to show detail thereof. Data as to building materials—brick, stone, wood, and so forth; finish; stairways or elevators; whether fire-proof or not, fire-escapes, fire protection, if any; size of lot, size of building, survey; heating plant; general condition of improvements; gross rent roll; number of apartments and rooms; net rental; taxes per annum; cost of building; cost of lot; appraisal value of building; appraisal value of lot; whether any present incumbrances, taxes, mechanics' liens, and so forth. Amount of loan desired; purpose of loan; how and when principal payable; interest rate and dates of payment; commission, rate, and whether expenses of preparing papers covered; insurance and by whom to be placed; limit of time for closing; specification as to furnishing form of evidence of title, that is, guaranty policy, abstract and opinion of attorney; provision for application of proceeds of loan. What, if any, income tax provision is to be inserted.

This application should be carefully and definitely filled in and, with the closing or checking sheet next mentioned, should be made part of the file on the loan. They will constitute a useful basis for reviewing and selling the loan.

The steps to check and close the loan are indicated by the data which should be entered on a form covering the following:

Notation as to review and approval of loan. The description of notes and bonds; by whom prepared, and by whom checked with the deed of trust or mortgage, and who witnessed execution and when and how stamp tax paid; checks on description of property, preparation and approval of form of deed of trust; opinion or guaranty policy on title, survey; what insurance and title papers received; notation of the application of the loan, approved in writing by the

borrower showing amount applied on incumbrances, abstract of title, recording fees, broker's commission, attorney's fees paid by borrower, deposited in fund to secure completion of building if a building loan, and check on due entry in record and reminder book of maturity dates, interest and principal, and insurance renewal dates.

Finally, in the case of a building loan, both in the application and in the deed of trust, due care under competent attorneys' advice should be exercised to provide that the funds borrowed and pledged to complete the building shall only be paid out on architect's or other competent certificates and such contractor's and owner's certificates as the mechanic's lien law requires, when and as it appears that such fund will wholly complete the building free of mechanic's liens.

REAL ESTATE LOANS ON FARMS

There is a very important class of loans on real estate that stands by itself, and that is real estate loans on farms. They should only be made in the first instance by or through an experienced organization adequately equipped to apply the following general rules:

Inspection should be made on every loan, with due inquiry as to the productive character of that particular farm, the condition and adequacy of its improvements, transportation facilities, ability and character of the farmer. Due limitation of such a loan to not over the loaning value per acre in the general locality, due limitation of consideration to any considerable extent of value of improvements, and the crops the farm raises, must be clearly designated. This requires rather intimate knowledge of the practice of lenders as to the locality concerned. An efficient organization for collection of interest should also be back of the loan, if possible. Otherwise the details as to insurance, preparation of papers and other matters are quite the same as in city real estate loans.

While there are fluctuations, usually in cycles of eight to ten years in the demand for real estate loans and the interest return safely to be secured, there is in the market for them a more uniformly sustained trade than in other securities. As already intimated, a man entering on the investment field may and should consider training for and doing business in other bonds and securities. But it is obvious that a sound training and experience in such real estate loans as have been described forms a valuable if not quite essential foundation for successful conduct of a well-rounded out business, and better equips one for dealing in every other kind of issue where real estate is a part of the security offered.

SELF-TEST QUESTIONS

1. Distinguish between the real estate mortgage and the real estate mortgage bond. Why did the latter come into use? Which of the two is likely to be the better investment? Why?
2. Distinguish between building bonds and ordinary corporation mortgage bonds.
3. What types of building bonds are excluded from the class of real estate bonds discussed by the lecturer, and why?
4. Compare and contrast real estate bonds with railroad, public utility, and industrial bonds, as to safety of principal, certainty of income, and marketability.
5. Discuss the factors to be considered in analyzing a real estate bond for investment purposes.
6. What factors should be considered in evaluating farm mortgages for investment purposes, and why?

XV

FEDERAL FARM LOAN BONDS

By B. C. HARDENBROOK

Vice-President, First Trust and Savings Bank, Chicago

Survey of the history of the agricultural credit situation prior to the passage of the Federal Farm Loan Act of 1916. Conditions prevailing which made legislation seem advisable. Organization and operation of the Federal Farm Loan System: Federal Land Banks; Joint Stock Land Banks. Discussion of investment characteristics. Intermediate credit bank bonds. An act providing machinery supplementary to the Federal Farm Loan System, to finance short-term credit requirements of agriculture.

FEDERAL FARM LOAN bonds, insuring, as they do, an ample supply of needed capital for the farmers, who compose the largest single economic factor in this country, are, therefore, of considerable importance in any discussion on investments. In considering this type of bond, it is desired to cover the following subjects:

1. Federal Farm Loan Bonds:

- (a) Survey of the history of the agricultural credit situation prior to the passage of the Federal Farm Loan Act of 1916;
- (b) Conditions prevailing which made such legislation seem advisable;
- (c) Organization and operation of the Federal Farm Loan System:
 - (1) Federal Land banks;
 - (2) Joint Stock Land banks;
- (d) Discussion of investment characteristics.

2. Intermediate Credit Bank Bonds:

- (a) An act providing for machinery supplementary to the Federal Farm Loan System;
- (b) Purpose—To finance the short-term credit requirements of agriculture.

It is impossible here to give more than a brief summary of the Federal Farm Loan Act, as amended, covering, as it does, the entire field of agricultural credit. A short discussion of conditions prevailing prior to the passage of the various acts may be instructive.

Agriculture has long been the largest single industry in the United States. For many years in the early history of the country, the farming industry absorbed the energies of the entire people. There was very little, if any, manufacturing, and it might be said that the manufacturing era has only been a development of the last 50 years. In the early days, farm lands were cheap. Lands were easy to acquire and frequently produced the immediate wealth that our citizens desired. In many instances the cheapness of land resulted in our citizens becoming land poor. There were no adequate markets for the products of the farm, and the farmer was unable to pay taxes or buy the necessities which he could not produce. As the country gradually became settled, lands in the older communities advanced in value, and one who desired to engage in agricultural pursuits was forced to have capital, or credit, or both. Credit agencies existed but were not adequate to the needs of the farmer. Individual investors, estates, insurance and investment companies supplied capital from time to time. This kind of capital was for three- to five-year periods, and it was not always obtainable by the farmer when most needed. The rates of interest and commission charges were sometimes unreasonably high. At times there was an abundance of this capital; at other times there was none. The supply was dependent on capital seeking investment and had no relation to the necessity of the farmer for funds. Local banks in farming communities supplied funds for short periods of a few months to a year. This source, however, was not always available. At times such banks were not able to carry the farmer for as long a period as was necessary; sometimes these demands were too heavy at the peak load for the bank to carry.

This situation was recognized as early as 1890, and from that time down to 1916 efforts were made to arrive at some comprehensive system that would provide the necessary credit for farming operations. Studies of the credit needs of the farmer were made by committees of Congress and commissions appointed by the President which surveyed not only the conditions in our own country, but the conditions existing in Europe, and the result was the introduction of several bills in Congress during the period from 1912 to 1916. These bills were finally consolidated into the measure known as the Federal Farm Loan Act, which was passed by Congress and became a law July 17, 1916. This act remained on the statute book without amendment until 1920, and then was only amended in minor particulars necessary to assist in the practical working out of the act. It was again amended in 1923, and added to the act was the law creating the Federal Intermediate Credit banks and their affiliated institutions.

The amendment of 1923 changed the number of members of the Federal Farm Loan Board from five to seven. It also changed the method of electing directors of the Federal Land banks and enlarged the amount that could be loaned by a Federal Land bank to any one person from \$10,000 to \$25,000. It specifically provided, however, that preference should be given to loans of \$10,000 and under. There were some other minor amendments which did not change the purposes of the act. In the consideration of the Federal Farm Loan Act we will discuss the act as amended.

FEDERAL FARM LOAN BANKS

Organization. A board to be known as the Federal Farm Loan Board was created by the act and consists of seven persons. The Secretary of the Treasury is *ex-officio* chairman of the board and the other six members are appointed by the President, by and with the advice and consent of the Senate. Of these six members, no more than three can

be appointed from the same political party, and one of the six members is to be designated by the President as Farm Loan Commissioner, and becomes the active executive officer of this board. The first duty of the board is to divide the continental United States into twelve districts and to cause to be organized in each of the twelve districts a Federal Land bank. These banks are to be designated by number and are to be known as FEDERAL LAND BANK OF , the city included in its title to be the principal office of that particular bank. By the amendment of March 4, 1923, the benefit of the act was extended to the territory of Alaska and had been previously extended to Porto Rico, so that at the present time the act covers not only the continental United States, but the Territory of Alaska and Porto Rico as well. The limitation on loans in the last two territories, however, is \$10,000 to any one person as against a limit of \$25,000 in the continental United States, and, in addition, there is no provision in these two districts for the organization of National Farm Loan associations, which will be treated of hereafter.

Capital Stock. The act provides that the Federal Land banks shall each have a capital of not less than \$750,000 so that the combined capital of all the banks organized is at least \$9,000,000. Subscriptions to the stocks of the various land banks were thrown open to the public with the provision that any stock not subscribed for by the public was to be subscribed by the United States Government. Of the original capital, \$107,897 was subscribed by the public and \$8,892,103 was subscribed by the United States Government. The act contemplated that this government subscription should be repaid, and the necessary machinery to accomplish this purpose was set up in the act.

NATIONAL FARM LOAN ASSOCIATIONS

The Federal Land banks were not designed to do business direct with the borrower, and the act created what is

known as National Farm Loan associations as the instrumentalities for the making of loans. These National Farm Loan associations were to be organized by ten or more natural persons who were owners of, or about to become owners of, agricultural lands that were eligible as security for Federal Farm loans. The affairs of these National Farm Loan associations are directed by a board of directors elected by the members of the association, who, in turn, elect a president, a vice-president, a secretary, and a treasurer, and also appoint a loan committee.

In order to procure a loan from a National Farm Loan association, it is necessary for the borrower to subscribe to the capital stock of the association in the sum of 5% of the amount he desires to borrow, and in the affairs of the association each stockholder is entitled to one vote for each share of stock he holds in the association not exceeding 20 votes. The Farm Loan association in turn must subscribe 5% of the amount of the loans desired to the stock of the Federal Land bank of the district in which the Farm Loan association is organized, and it is through this subscription that the original capital of the land banks is to be repaid to its subscribers.

The act provides that when a Federal Loan bank has received subscriptions to its capital stock amounting to the original capital, or \$750,000, thereafter 25% additional subscriptions are to be used to retire the original subscribed stock. It might be well to state here that the combined capital of the Federal Land banks on December 31, 1923, was \$43,597,320, of which amount but \$2,434,385 represents the original subscription of the United States Government.

RESTRICTIONS ON LOANS

The act is very definite as to the purposes for which loans can be procured from the Federal Land banks, and it can best be stated by quoting direct from the act as amended:

(a) To provide for the purchase of land for agricultural purposes;

(b) To provide for the purchase of equipment, fertilizers, and live stock necessary for the proper and reasonable operation of the mortgaged farm; the term "equipment" to be defined by the Federal Farm Loan Board;

(c) To provide buildings, and for the improvement of farm lands; the term "improvement" to be defined by the Federal Farm Loan Board;

(d) To liquidate the indebtedness of the owner of the land mortgaged incurred for agricultural purposes or incurred prior to January 1, 1922.

No loan on mortgage shall be made at a rate of interest exceeding 6% per annum. No loan shall exceed 50% of the value of the land mortgaged and 20% of the value of the permanent, insured improvements thereon, said value to be ascertained by appraisal.

Applications for loans through these Farm Loan associations must be made on forms prescribed by the Federal Farm Loan Board and must receive the approval of the loan committee of the association. Under the provisions of the original act it was necessary for the loan committee to make an inspection of the land upon which the loan was to be made, but, by the amendment, they have the alternative of causing this inspection to be made by whoever they may select.

The application, with the approval of the loan committee and the appraisal of the lands, is then forwarded to the Federal Land bank in its district, and, if it meets with the approval of that bank, the loan is granted. All loans must be secured by a first mortgage on the lands mortgaged, which must be held by natural persons.

However, where executors or representatives of a deceased person are jointly owners with a natural person, under certain conditions the loan can yet be made. Not only must a borrower give a first mortgage on lands, but he must also pledge his stock in the National Farm Loan Association as additional security for the loan.

FEDERAL LAND BANK BONDS

It is these farm mortgages that are used as the basis by the Federal Land banks for the issue of Federal Land bank bonds. The mortgages are deposited with the registrar of the land bank and are held by him as collateral security for the bonds, and it is his duty to see that the bonds delivered by him and outstanding do not exceed the amount of the collateral security pledged therefor. Federal Land banks can issue bonds secured by farm mortgages up to 20 times their capital.

In order to procure funds in advance of the making of the actual mortgage loans, the act provides that United States Government securities may be deposited temporarily as security for the Federal Farm Loan bonds, but it is contemplated that as fast as the mortgage loans are made they shall be substituted for the government securities. In contemplation of the act, the securities behind the Federal Farm Loan bonds are first mortgages on farm properties. A National Farm Loan association must endorse the mortgages that it deposits with the Federal Land bank and thus becomes liable for the payment of the same.

LOANS THROUGH AGENTS

The act also provides for the use by the Federal Land banks of agents through whom it can make farm loans. These agents must be approved by the Federal Farm Loan Board, and no agent other than a duly authorized bank, trust company, mortgage company, or savings institution, chartered by the state in which it has its principal office, shall be employed under the provision of this act. In the operation through agents, the borrower is compelled to make a subscription of 5% of the amount of his loan to the stock of the Federal Land bank direct, and the agents through whom the loan is procured must endorse and become liable for payment of mortgage loans that they submit.

AMORTIZATION

All loans made through Federal Land banks are made on what is known as an amortization plan, which is as follows:

Every such mortgage shall contain an agreement providing for the repayment of the loan on an amortization plan by means of a fixed number of annual or semiannual instalments sufficient to cover, first, a charge on the loan at a rate not exceeding the interest rate in the last series of farm-loan bonds issued by the land bank making the loan; second, a charge for administration and profits at a rate not exceeding 1% per annum on the unpaid principal, said two rates combined constituting the interest rate on the mortgage; and, third, such amounts to be applied on the principal as will extinguish the debt within an agreed period, not less than 5 years nor more than 40 years.

The mortgagor also has the privilege of prepayment of part or all of the loan at any time after five years from date upon any regular instalment payment date.

JOINT LIABILITY ON LAND BANK BONDS

While the bonds of each Land bank are separately issued and are the separate obligation of the particular land bank, they are, nevertheless, also the obligation of all the other land banks; so that in the event of default of any one bank, the obligation must be assumed and paid by the other 11 banks jointly. Under the amendment of March 4, 1923, provision has been made to issue a consolidated bond for all the land banks. The necessary machinery has been set up and, while no attempt has yet been made to operate under this amendment, undoubtedly some time in the future it will be used, and instead of having bonds issued by separate land banks there will be but one bond, the consolidated liability of all the land banks. As they now assume this liability under the law, it will be seen that this will be a simpler way of issuing bonds than the present method. In marketing the bonds, no distinction has been made in the

price of the various banks' bonds offered, as they have all been sold through a central agency in Washington; and, while the investors have naturally preferred bonds of one land bank to those of another, it was undoubtedly to meet this preference that the amendment was adopted permitting the issuance of a consolidated bond.

OPERATIONS TO DATE

The seventh annual report of the Federal Farm Loan Board for the year ended December 31, 1923, shows that the land banks are now carrying mortgage loans to the amount of \$799,596,834.78, and this statement also shows that they hold \$43,843,476.50 of United States Government bonds and securities. Against this total have been issued \$806,669,330 of farm loan bonds.

JOINT STOCK LAND BANKS

The Act of July 17, 1916, also created Joint Stock Land banks, which were authorized to be organized by private capital, but this capital could not be less than \$250,000. A Joint Stock Land bank is permitted to do business in the state in which its principal office is located and in one contiguous state. The limitations applied to Federal Land banks, as to the purpose for which loans can be made on farm property and the amount loaned to any one borrower, were not applicable to Joint Stock Land banks by the act itself, but under the rulings of the Federal Farm Loan Board these same limitations have been made to apply to the Joint Stock Land banks, with the exception that under the Federal Land banks the borrower must be an owner and operator of the farm lands mortgaged, while under the Joint Stock Land bank he does not need to be an operator of the lands mortgaged. The restrictions, however, under the rulings of the Federal Farm Loan Board are not as stringent as those applied to the Federal Land bank, par-

ticularly in the amount of the loan, which can run as high as \$50,000 to any one borrower as against the \$25,000 limit through the Federal Land bank. The rate of interest that can be charged by the Joint Stock Land banks must not exceed 6% and cannot exceed by more than 1% the rate of interest borne by the Joint Stock Land bank's last issue of bonds.

In their organization and operation, and other particulars, the banks are similar, but it should be noted that the bonds issued by the Joint Stock Land banks are the specific obligation of the particular bank issuing them. Joint Stock Land banks can issue bonds secured by farm mortgages as collateral up to 15 times their capital. The Joint Stock Land banks have to find a market for their bonds, and investors exercise their privilege of favoring certain land bank bonds as against other land bank bonds. This has resulted in a little difference in the rate at which these bonds can be sold. The investor has given consideration, in selecting his investment in these bonds, to the character of the management and the territory in which the particular bank is operating. The bonds of Joint Stock Land banks operating in old-established communities where the values of lands are established are more desired by investors than the bonds of land banks operating in less favorable territory. Through the operation of the Federal Land banks and Joint Stock Land banks, the necessary long-time credit that the farmer has to have is provided.

FEDERAL INTERMEDIATE CREDIT BANKS

We will now take up the question of the short-time credit which is provided in the act passed March 4, 1923, and known as the Federal Intermediate Credit Bank Act. Prior to the passage of this act, a farmer requiring short-time credit went to his local bank, and his local bank was able to finance his current needs. It has been the experience, however, that the farmer sometimes had to have this credit

for a longer period of time than was considered good banking, in order to keep the local institution with the proper amount of liquid assets. During the depression following the close of the war, many of the local banks became loaded with this class of credit, which brought about a serious crisis in their affairs.

Legislation designed to relieve this condition resulted in the passage of an act creating the Federal Intermediate Credit banks. The act provided: For the organization of 12 institutions, one in each of the Federal Farm Loan districts, to be known and styled as Federal Intermediate Credit banks. The capital of each institution was fixed at \$5,000,000, which was to be subscribed by the United States Government. The directors and officers of the Federal Land bank in each district became *ex-officio* officers and directors of the Federal Intermediate Credit banks. In respect to discount and loans, the Intermediate Credit banks were given the following powers:

1. To discount for, or purchase from, any national bank, and or any state bank, trust company, agricultural credit corporation, incorporated live-stock loan company, savings institution, cooperative bank, cooperative credit, or marketing association of agricultural producers, organized under the laws of any state, and or any other Federal Intermediate Credit bank, with its indorsement, any note, draft, bill of exchange, debenture, or other such obligation the proceeds of which have been advanced or used in the first instance for any agricultural purpose or for the raising, breeding, fattening, or marketing of live stock;
2. To buy or sell, with or without recourse, debentures issued by any other Federal Intermediate Credit bank;
3. To make loans or advances direct to any cooperative association organized under the laws of any state and composed of persons engaged in producing, or producing and marketing, staple agricultural products, or live stock, if the notes or other such obligations representing such loans are secured by warehouse receipts, and or shipping documents covering such products, and or mortgages on live stock: Provided, that no such loan or advance shall exceed 75% of the market value of the products covered by said warehouse receipts and or shipping documents, or of the live stock covered by said mortgages.

(a) No paper shall be purchased from, or discounted for, any national bank, state bank, trust company, or savings institution under this section, if the amount of such paper added to the aggregate liabilities of such national bank, state bank, trust company, or savings institution, whether direct or contingent (other than *bona-fide* deposit liabilities) exceeds the amount of such liability permitted under the laws of the jurisdiction creating the same; or exceeds twice the paid in and unimpaired capital and surplus of such national bank, state bank, trust company, or savings institution. No paper shall under this section be purchased from, or discounted for, any other corporation engaged in making loans for agricultural purposes or for the raising, breeding, fattening, or marketing of live stock, if the amount of such paper added to the aggregate liabilities of such corporation exceeds the amount of such liabilities permitted under the laws of the jurisdiction creating the same; or exceeds ten times the paid in and unimpaired capital and surplus of such corporation. It shall be unlawful for any national bank which is indebted to any Federal Intermediate Credit bank upon paper discounted or purchased under this section, to incur any additional indebtedness, if by virtue of such additional indebtedness its aggregate liabilities, direct or contingent, will exceed the limitations herein contained.

(b) Loans, advances, or discounts made under this section shall have a maturity at the time they are made or discounted by the Federal Intermediate Credit bank of not less than six months nor more than three years. Any Federal Intermediate Credit bank may, in its discretion, sell loans or discounts made under this section, with or without its indorsement.

(c) Rates of interest or discount charged by the Federal Intermediate Credit banks upon such loans and discounts shall be subject to the approval of the Federal Farm Loan Board. On the majority vote of the members of the Federal Farm Loan Board any Federal Intermediate Credit bank shall be required to rediscount the discounted paper of any other Federal Intermediate Credit bank at rates of interest to be fixed by the Federal Farm Loan Board.

The rate of discount to be charged on loans was to be established by the Intermediate Credit bank and was to be approved by the Federal Farm Loan Board. The Intermediate Credit banks were authorized to issue debentures to be secured by the discounts and loans that they made

par for par. These debentures are the obligations of the Intermediate Credit banks that issued them. However, as in Federal Land banks, all of the Intermediate Credit banks are liable for debentures of any one particular bank in the event of default. The machinery for an elaborate system of examination not only of the Intermediate Credit banks, but of the banks and institutions for which they discount or purchase loans is also provided for. Part of this system of examination is conducted by land-bank examiners, and part of the examination is under the supervision of the Comptroller of the Currency.

The debentures that they are authorized to issue may run for any time not exceeding five years, and the loans they are privileged to rediscount or purchase may have a maturity from six months to three years, depending upon the purpose for which the loan was made. The act provides also for the creation of National Agricultural Credit corporations, which are privately owned corporations having a capital of not less than \$250,000. It also provides that National Agricultural Credit corporations could become rediscount corporations when they have a capitalization of \$1,000,000 or over. The powers and duties of these rediscount corporations are similar in character to the credit corporations, but they do not loan direct to borrowers. It is created for the purpose of rediscounting evidences of indebtedness held by other credit corporations or by banks and trust companies which are members of the Federal Reserve System, and also by cooperative marketing associations. The operation of these various agencies has been but for a short time, and very little, if anything, can be said as to the way they will ultimately work out. Most of the debentures issued by the Federal Intermediate Credit banks have been for a period of six months only, and have been absorbed by the banks throughout the country which have, in most instances, held them for their own investment.

As of December 31, 1923, the Federal Intermediate Credit banks have direct loans of \$33,627,491 and have

rediscounts of \$9,104,938. Of the capital stock subscribed, but \$20,000,000 has been paid in, and debentures amounting to \$30,500,000 have been issued.

TAX EXEMPTION

This question can be treated as applied to the bonds of Federal Land banks and Joint Stock Land banks and Federal Intermediate Credit banks. The bonds and debentures of all of these banks are exempt from taxation not only by the United States Government, but also free from taxation by state, municipal, or local bodies.

SELF-TEST QUESTIONS

1. What economic developments brought on the present Federal Farm Loan Act, and why?
2. Outline the main provisions of the Federal Farm Loan System and try to give reasons for each.
3. For what purposes may Federal Land banks make loans, and why?
4. Why are interest rates limited to 6%? Why must the margin of safety in the case of land mortgaged equal 100% of the loan?
5. What is the security of Federal Land bank bonds? Is it adequate?
6. What institutions may act as agents for the Federal Land banks in making farm loans? Why cannot individuals act as agents?
7. Explain the amortization plan for retirement of Federal Farm loans. Do you approve of such a plan? Why or why not?
8. What is the purpose of the Joint Stock Land banks? How do they and their bonds differ from the Federal Land banks and their bonds?
9. Why are Federal Intermediate Credit banks needed? Discuss the organization and powers of such banks, giving reason for each statement you make.
10. What are the National Agricultural Credit corporations? Discuss their relations to the Intermediate Credit banks.

XVI

THE ORGANIZATION OF THE INVESTMENT BANKING BUSINESS

By W. L. HUDSON

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Modern investment banking a recent development. Volume of security issues of 1924 an indication of importance of investment business. Types of investment banking houses: underwriters doing only wholesale business, underwriters combining wholesale and retail business, houses doing only retail business. Buying department of an investment banking house. Sales department. Trading department. Accounting department. Numerous services rendered the investor by the investment banking house. Investment banking groups that function in buying securities. Selling groups, syndicates. Functions of various syndicates. Investment Bankers Association of America, its organization, purpose, and service to the investor.

THE investment banking business, as it is conducted in the United States and Canada today, had its inception only about 40 years ago in the courage and foresight of a few individuals who undertook, on their own responsibility and at their own expense, to investigate small municipal bond issues; having satisfied themselves of the security, to purchase outright the entire issues with their own, or borrowed, funds; and to offer the bonds to investors with their recommendation. At that time was introduced into the bond business an element which had not previously existed, and which still differentiates it from the stock business—an assumption of moral responsibility on the part of the seller to base the sponsorship of an issue on conviction of its soundness, acquired through thorough investigation, and to protect the rights of the investor throughout the life of the investment.

The methods and the principles of those pioneers, greatly broadened, to be sure, have extended throughout the entire

bond business of America, which has developed into a highly specialized business of great magnitude whose function is, on the one hand, the origination, or purchase, of properly safeguarded bond issues, thus applying the capital for public or corporate enterprises; and, on the other, the distribution, or sale, of these bonds ultimately to the investor, in that process conveying to the American people specific information, knowledge of investment principles, and individual advice—and, of equal importance, a justified confidence in such advice—that have a cumulative and constructive economic value impossible to overestimate.

Some idea of the enormous importance of the bond business to the economic life of the country may be obtained by a consideration of certain figures. The *Commercial and Financial Chronicle*, in its compilation of capital flotations for 1924, tabulates new issues brought out during that year as follows: Municipal and farm loans, \$1,550,195,400; corporations, \$2,972,285,300; United States possessions, \$8,830,000; Canadian, \$151,484,400; Foreign, \$778,005,000; a total of \$5,460,800,100. Sales of bonds on the New York Stock Exchange amounted, in 1924, to \$2,345,321,300 in corporation issues, \$876,930,815 in United States and foreign government issues, and \$582,100,500 in municipal issues, a total of \$3,804,252,615; and yet that was doubtless largely exceeded by the business transacted in the bond houses of the country. It is, of course, through the sale of bonds that capital is furnished to municipalities for construction of buildings, roads, and the majority of other public works of all kinds; and largely to railroad, public service, and industrial corporations for the expansion of existing enterprises or the creation of new. During the World War the United States Government sold a total of \$21,478,356,250 Liberty bonds, in the fourth issue alone, placing \$6,993,073,250 with twenty-one million subscribers, and only those who had a part in that achievement know how heavily the government leaned on the bond houses of the country in its accomplishment.

TYPES OF INVESTMENT BANKING HOUSES

In considering the organization of this investment business we approach at once its two great functional divisions, origination or purchase, and distribution or sale; and we can fairly well classify the houses engaged in the business by reference to the parts played in the sequence from original purchase to final sale.

At one extreme we have the large underwriting houses which, either alone or in joint account with other similar institutions, undertake the purchase of large and important issues, distributing them at wholesale only to other houses which in turn carry on the distribution at retail to the investor. Of this type there are few examples.

Considerably more numerous are the large investment bankers who, alone or with associates, undertake large underwritings and dispose of a considerable portion of each issue at wholesale, but retain a substantial amount for retail to their own investor clientele.

There exists also in some numbers a third type of originating, or underwriting house, which heavily emphasizes retail distribution, wholesaling either not at all or to a limited extent, but depending for its market wholly, or in large measure, upon banks, institutions, and individuals.

A most important factor on the side of ultimate distribution is the dealer who is concerned primarily with retail sales, and who underwrites issues of only modest size or none at all, or occasionally participates for a small share in a buying syndicate, but depends largely for his supply of securities upon the wholesale firms. The number of these dealers in the United States has increased greatly in the past 15 years, and some have developed into originating houses of importance. Their sales in the aggregate are, of course, enormous.

And finally we have, as a distributing medium, the bank with a bond department. There are a few large and powerful institutions whose bond departments rank at the very

top in both major functions—origination and distribution; but for the most part even the large financial institutions are content with underwriting municipal or small industrial issues, devoting their attention primarily to retailing securities purchased from the highly specialized bond houses. With the spread of knowledge of investments through the country, the consequent demand for conservative securities has grown to such an extent that a great many banks, even of very limited size, located in the outlying sections of large cities and in small communities, have been led to install bond departments, not infrequently with highly satisfactory results.

The primary function of the bond house from the standpoint of the underwriter is to furnish resources for various corporate or public enterprises, whereas from the sales standpoint it is to supply to the public securities meriting entire confidence. The necessity of harmonizing these frequently divergent interests has led the more conservative houses which retail issues of their own origination to adopt the policy of limiting their consideration of purchases to such bonds as may be offered the public with their conscientious recommendation.

THE BUYING DEPARTMENT

In considering the organization of the individual bond house, as viewed from within, it is perhaps fitting to take up first the buying department, the starting point of the various securities handled. The vital importance of this side of the business is largely unappreciated by the public because of a lack of knowledge of its scope. Yet upon the wisdom and care exercised by this department really depends, in great measure, the safety of the bonds offered by the house. The labor, time, and expense consumed in the negotiations and investigations preceding the closure of the contract for the purchase of an issue of corporation bonds are considerable and are also little understood by investors.

In some cases several months elapse between the inception of negotiations and the consummation of the purchase, wholly occupied in minutely studying the situation and shaping up the issue. Involved in this examination are engineers' appraisals of the physical property, estimates of the character and ability of the management and of the field of operation and probable growth of the business, audits of the company's books, legal scrutiny of franchises and titles, and many other phases not necessary to detail. Then follows the draft of the mortgage or indenture securing the bonds, and the way is cleared for determining the amount of the issue, the price to be paid, and other vital points antecedent to closing the contract. From the beginning to the end of this work should run one primary consideration—the protection of the investor.

The buying department, especially in the larger originating houses, is usually subdivided according to the classes of bonds handled. Thus in one institution we may have the corporation department, the railroad department, and the municipal department, each engaged in the investigation and purchase of the type of bonds indicated. In some instances these divisions of the buying function constitute really separate departments, having no interrelation except in the general organization of the business; whereas in many cases they are closely related, under the direction of a single executive. Especially is the latter often the case in connection with the groups dealing with the various classes of corporation issues, such as railroad, industrial, and public utility.

Buying departments of some few houses are elaborately organized, maintaining staffs of high-salaried specialists, such as engineers, auditors, statisticians, attorneys, and so forth. But on the other hand, especially in the smaller houses, a single individual of experience, judgment, and character, with the help of a clerk or two, may direct its entire buying operations. In this case, of course, he must depend for detailed and technical reports upon outside spe-

cialists employed as needed. Numerous firms of engineers, attorneys, and auditors specialize in this type of work for investment bankers.

Less complex is the organization of the municipal buying department, and less technical its problems. Directing its policies, however, should be a man of long experience and broad knowledge of the country and the laws governing the issuance of municipal bonds in various states; and within its statistical files abundant material from which to obtain necessary data of the type required. Included in its personnel is usually a man capable of making an inspection of any given city, town, or section of the country and writing an adequate report thereon. It is also customary to employ an individual skilled in the niceties of such transactions, to attend the sales of municipal bonds, his duty being to protect the interests of his house in the competition which usually exists for the purchase of the issue. Broadly speaking, the elements emphasized in the examination of a municipal issue are the financial history, or credit standing, of the borrowing municipality; its probable permanence, growth in population and economic development; and the legality of the issue under consideration. Only on the legal side is assistance ordinarily required of the specialist outside the organization, that question being referred to one of the firms of bond attorneys whose approving opinions are recognized by the bond fraternity and the investor as authoritative.

THE SALES DEPARTMENT

The sales department, in those houses having a wide distribution, is usually organized on geographical lines, each major section under the direction of an officer or manager, each of whose lieutenants in turn, as assistant manager or district manager, is responsible for the results produced by the salesmen working under him in his particular subdivision of the territory. The whole sales organization is usually under general charge of one of the principals of the

house, and on him is, in large measure, the weighty responsibility of determining sales policies, maintaining the personnel and the morale of the sales force, producing a sales volume sufficient to keep pace with, or somewhat in advance of, the producing power of the buying department, and achieving profits thereby that will be satisfactory to his associates or the stockholders of his company, as the case may be. In a few houses the sales organization is refined to an even greater degree than indicated in the foregoing, while in the smaller houses, though not so complex, it is usually laid out on the same general plan.

The training given the salesman before he is allowed to undertake actual sales work is usually quite thorough, requiring, in some institutions, as much as a year's work. As a result, he goes out equipped with a knowledge of the history and fundamentals of the bond business in general, of the policies and sales methods of his particular house, and of the types of bonds and the sections of the country in which it may be interested, as well as more than a casual acquaintance with economic laws, the theories of corporation accounting, and kindred subjects.

So extensive has the bond business grown, and so vast and complex is its organization, that it has reached a point in intensive personal solicitation throughout the country that is quite remarkable. It is perhaps not an exaggeration to state that even the quite small town, especially in the older, more densely populated sections, is reached almost every day of the year by the representative of some bond house.

THE TRADING DEPARTMENT

In addition to the general sales department, as outlined, many investment bankers have found it necessary for the convenience of their customers to conduct a trading department to execute quickly and at a minimum expense buying and selling orders of securities listed on the various exchanges or traded on the "curb" or on the "street." The

trader is in close wire touch with various brokers and other trading desks, and with his consequent knowledge of markets can immediately secure current quotations on a vast variety of issues. By this means orders for bonds not at the moment on hand or for securities not on the "approved list" of the sales department, are promptly filled, and bonds which for one or another reason the house may not wish to buy for its own account are quickly disposed of for the customer. The trader is likewise of great assistance in maintaining markets for the firm's own issues. In some houses the trading desk has become an important and profitable department.

THE ACCOUNTING DEPARTMENT

The accounting department handles the mechanics of the business. When bonds are purchased, this department examines them to see that they are properly signed and sealed and that they agree in every detail with the bonds which the buying department has reported purchased, and, in the case of corporation bonds, that they are properly certified by the trustee. The bonds are carefully examined further to see that all unmatured coupons are attached, and, if registered, that properly executed assignments accompany them, and they are also checked against the notices of lost and stolen bonds so that the institution does not run the risk of handling stolen securities. This department also keeps an account with each customer of the house showing the bonds which he has purchased and which have been purchased from him, and accounts with each issue of bonds handled showing who the purchasers are and the numbers purchased so that any bond handled may be quickly traced at any time.

In this department are issued advance payment receipts, or interim certificates, when bonds are not ready for delivery, and here temporary bonds are exchanged for permanent bonds. Other functions are the keeping of an accurate record of sales by the different salesmen, classified according

to the various headings, such as industrial, municipal, sales to banks, investors, insurance companies, and so forth, the keeping of a record of the interests of the various participants in syndicates, keeping a record of expenses and distributing profits to participants when a syndicate or joint account is finally closed. The exact location of every bond belonging to the institution is known in this department, and the head of the department, or cashier as he is usually called, must anticipate his requirements from day to day and, as far as possible, have the securities ready for delivery to meet the customers' demands.

The services rendered to the investor by the bond houses are so numerous and so varied that it would require considerable space simply to catalog them, but it may be well to list some of the more important:

1. Scientific methods of investigation of bond issues, involving a degree of experience, training, and technical knowledge, as well as financial expense, not otherwise at the disposal of the investor;
2. Maintenance of a satisfactory cash market and collateral value on the outstanding issues;
3. Assumption of a moral responsibility to protect the rights of the investor to the final payment of interest and principal;
4. Safekeeping and shipment of securities;
5. Collection of principal and interest when due;
6. Notification of bond calls;
7. Placing at the disposal of the investor the vast amount of information contained in the statistical departments;
8. Personal investment advice.

BUYING GROUPS AND SELLING SYNDICATES

As has been suggested, several houses may be associated in the purchase of an issue. This may result from the fact that they all have rights recognized by the borrower, or the financing may be of such magnitude that the originating

house considers it unwise to underwrite it alone, and so invites the others to join the undertaking. The shares may be unequal. Thus, house "A" share may have a 60% interest, house "B" share 20%, and house "C" share 20%. The profits, if it is a success, are shared in those proportions; so, also, are the losses, if it is a failure. The share of any given house is often referred to as its "liability," its "interest," or its "participation."

When this buying group is ready to market the issue, it undertakes the formation of a selling syndicate for that purpose. In some cases an intermediary group is created, composed of the original buying group, plus certain other houses which they ask to join them in the formation of the selling syndicate. These latter houses share the liability in agreed percentages, but their profit is slightly less than that of the original group. This somewhat larger body then forms the selling syndicate by sending to an agreed list of dealers an invitation to join them in offering the bonds to the public under the terms of the syndicate agreement.

This agreement sets forth the prices at which the bonds may be offered by the members of the syndicate to other dealers, to banks, to insurance companies and other institutions, and to investors. It details the rights and duties of the members with respect to this issue during the life of the syndicate and sets the date of its termination. The percentage of profit to the members is specified, as well as the selling commission on their sales, and penalties for violations of the agreement are provided for.

Among the most common forms of syndicate is that in which the dealer is offered a specified participation, his profit and his liability bearing the same ratio to total profit or loss as his participation does to the whole issue. In some cases it is provided that his liability decreases in proportion to his sales; so that, if his sales equal his participation, he has no further liability. This type is sometimes referred to as a "sell-out" syndicate.

A frequent method of handling very large issues is by subscription, dealers being invited to solicit orders in accordance with specified terms and report them to the house acting as syndicate manager. When in the judgment of the manager a sufficient volume of orders has been received, he closes the subscription books and allots the bonds to the dealers in proportion to the sales reported.

Another common method is the wholesale syndicate, in which the dealer is not required to assume a liability, but is simply offered bonds at a generous concession from the list price, his resale of them, however, being governed by the terms of the agreement.

Frequently, the members of the buying group resolve themselves into a joint account and, without forming a general syndicate, undertake to market the issue at retail. In a divided joint account the issue is partitioned among the members in accordance with previously determined percentages, and sales are made by each member independently of the others, all being governed, however, by the terms of the agreement as to price, and so forth. An account may be "divided as to liability" but "undivided as to selling" and in such a case each member has a specified liability in the issue; but all sales are made from the total amount of bonds, the manager of the group making confirmations to the various members on actual sales.

Ultimate distribution of securities is greatly facilitated by the various stock exchanges throughout the country, that of New York being, of course, enormously the most important. Let us recall the figures, quoted earlier, of transactions in bonds on the New York Board in 1924—\$3,804,252,615—sufficient evidence in themselves of the importance of that market to the investing public. Brown, living in Portland, Oregon, has \$10,000 which he wishes to invest in Pennsylvania Railroad General 4½s at 91¼, while Smith, residing in Boston, has \$5,000 of that issue he wishes to sell at 91¼, and Jones, in New Orleans, would like to

sell \$5,000 at the same price. Each communicates his wish to his bond dealer or his broker, and within a few hours, perhaps, the entire transaction is consummated through the medium of the New York Stock Exchange excepting shipment of the securities and settlement. In short, it affords a market—limited to the securities admitted to its list, of course—which is prompt, efficient, and nation-wide. In a much lesser degree, other exchanges throughout the country assist in this distribution.

THE INVESTMENT BANKERS ASSOCIATION OF AMERICA

In the growth of this great business of originating and distributing securities, the need for standardization of methods and principles became increasingly apparent; and, as a result of this need, developed an organization known as the Investment Bankers Association of America, founded in 1912 and having a present membership of more than 600 bond houses, with 300 branch office memberships. Its purpose is to determine and apply correct principles and practices in governmental, municipal, and corporate financing. The association is divided into 16 geographic groups, for the consideration of subjects of especial concern in any locality and the solution of local problems. The national activities are administered by 18 standing committees.

It is unnecessary here to detail the scope of the work undertaken by the association, but it may be said that it embraces every phase of the investment business from the standpoint both of the bond house and the investor. For the protection of the investor its achievements have been of great value, and some aspects of that constructive work may be noted. Through the committee on municipal securities, for example, it has provided a scientific basis for improved, model laws for sound municipal financing and has given its counsel and aid in having those principles adopted in a number of states. Similarly, the committees have to

do with various types of corporate securities have worked out, on scientific lines, principles of corporation financing designed to assure the investor the maximum of safety.

One of the most important committees of the association is the committee on ethics and business practices. One of the primary purposes of the association is to maintain investment banking on a high ethical plane. The committees on education and on publicity have performed a valuable service in giving to the public through numerous articles, stories, items, lectures, and editorials a better conception of sound investment principles. In this mass of constructive educational work are seven reference books put out by the committee on education.

Another agency designed for the protection of the investing public is the so-called Blue Sky Laws, as enacted up to the present time by 44 states. The term "blue sky" in this connection refers to fraudulent securities, the implication being that they rest upon a foundation of safety no more sound, nor tangible, nor salable than the sky above.

The various state laws, though differing in their details, have the same aim—to stop fraud at its source, by excluding from sale worthless securities and by preventing fraudulent enterprises from doing business. Though admirable in purpose, the Blue Sky Laws have encountered many difficulties and obstacles in application. It is not easy to define fraud, or to determine its existence; and, in the effort to exclude the unworthy, many thoroughly reputable and honest dealers have been seriously injured. Furthermore, the public has been inclined to accept a dealer licensed under the Blue Sky Law, or a security qualified thereby, as actually guaranteed by the state. And, in spite of the conscientious efforts of the officials charged with the administration of the laws, many dishonest dealers have been licensed and many questionable securities qualified. Improvement has been made, however, and it is fair to assume that with the help of the reputable dealers the Blue Sky

Laws will ultimately be built into useful and practicable enactments for the protection of the public.

It is impossible to estimate the amount of fraudulent securities sold annually in this country; but whatever the figure may be (and it probably runs into hundreds of millions of dollars), it is by that amount too large. Students of the subject state that it is not usually necessary to misrepresent grossly in order to sell worthless securities. The prospect of inordinately large returns is the only lure necessary. Cupidity and imagination do the rest. Obviously, in the education of the public to a better understanding of investment principles lies the hope of abolishing fraudulent promotions. The Investment Bankers Association of America and the Blue Sky Laws are active agents to that end; but most potent, by far, is the direct contact between the reputable investment dealer and the public, through letters, circulars, pamphlets, newspaper and magazine advertising, and the personal interview.

It would not be fitting to bring this chapter to a close without a brief tribute to the foresight, wisdom, courage, and high purpose of the men who have contributed to the development of this great business. It has been a tremendous force in the upbuilding of the nation, and will undoubtedly become increasingly so; and it is extremely doubtful if any business or industry in the United States is conducted in stricter adherence to high ethical standards, both as between the competing houses in a highly competitive field of the business world, and in their relations with the public.

SELF-TEST QUESTIONS

1. Why did the growth of investment banking institutions not reach considerable size before 1900?
2. What are the main functions of the bond house?
3. Are there different classes of investment banking houses? If so, what are they?
4. What factors do buying departments of bond houses analyze before purchasing bond issues, and why?

5. Compare and contrast the organizations of buying and selling departments of a bond house with which you are familiar.
6. Why are trading departments maintained by many bond houses, and what do they do?
7. What training would you prescribe for a bond salesman, and why?
8. What services does the bond house render investors?
9. What is meant by underwriting a bond issue? Why is underwriting needed in the bond business?
10. Define: Buying syndicate; selling syndicate; joint account; liability participation; allotment; subscription.
11. How are selling syndicates organized and operated?
12. Define "sell-out syndicates." "subscription syndicates," "wholesale syndicates."
13. How do the stock exchanges facilitate distribution of securities?
14. What is the Investment Bankers Association of America? What does it do for bankers? Investors?
15. What are Blue Sky Laws? What are their weaknesses? Suggest remedies for these weaknesses?

XVII

BUILDING AN INVESTMENT ACCOUNT

By ROGER K. BALLARD,

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The doctrine of systematic saving. Rapid accumulation of reinvested interest. Widow's mite, invested at 5% compound interest, 1900 years ago, would equal \$563,404,100,000,000,000,000,000,000,000,000,000 today. Importance of determining individual investment requirements. Needful and needless marketability in securities. Theory and practice of diversification; according to type of security, geography, maturity, and so forth. Tentative, illustrative figures showing ratios in diversification of individual investment account. Diversification as to yield and tax features illogical. Impossible to form general investment program for all people; each individual has different investment requirements. Analyzing individual investment needs.

THERE is no subject on which the American people are exhorted more continuously and more insistently than on that of saving a portion of their income. Even children are taught to save almost as early as they are forbidden to play with matches. Every one of us can remember the admonitions of a parent or other sage adult to save the occasional penny that found its way into our hands, instead of exchanging it for title to a bag of questionable, although alluring, candy. The joy of living is shadowed for most of us by a sense of guilt because we are not accumulating more money from our income.

The most depressing sophistry of all time is the wise saying that a "Penny Saved Is a Penny Earned," and that other slogan of bright promise, "Take Care of the Pennies and the Dollars Will Take Care of Themselves," runs it a close second. Parents, teachers, economists, newspapers, and savings banks appear to have formed a league with the sole purpose of taking the joy out of spending, and of holding the dread spectre of an impecunious old age before

those who do not practice saving and self-denial. And, of course, they are right in doing so. No one will question that thrift is a virtue in the individual or in the nation, but such is the perversity of human nature that almost every one must be belabored before he will practice it. There may be some exceptions to the general rule that every one should save money, but, if so, they are few. Only the man who is already so rich that money means nothing to him, or who is so old that what he has is certain to last out his days, can afford to neglect the principle of saving. Saving is an unpopular sport; the reward seems too long postponed to compensate for the necessary present denial, but the man who insists on dissipating his entire income should take lessons in economics from the squirrel, who at least has enough common sense to store up provisions for his future comfort.

THE DOCTRINE OF SYSTEMATIC SAVING

We all admit that we should save, yet few of us do, or at least not in proportion to our incomes. Some are genuinely uncertain as to how much we ought to save, and, of course, no universal rule can be established. Each case must be governed by circumstances. A government bureau is responsible for the statement that a thrifty man is one who saves 20 cents out of every dollar, while a "tightwad" is one who saves 60 cents. Then, of course, there is the spend-thrift, at one extreme, who saves nothing, and the miser, at the other, who saves everything. Each can decide for himself what classification he prefers, but the point is that every one should adopt some definite program of saving and follow it religiously.

All this is an old story, but there is one more particularly pertinent platitude: "Saving, to be effective, must be systematic." The account in which only desultory haphazard deposits are made "when it is convenient" will fare but poorly. The amount to be saved weekly or monthly must

be decided upon and must be an early charge against income. It must be set aside regularly and religiously. If this is done, amazing results are assured, especially if the savings are wisely invested.

Saving, merely as an abstract principle, is unattractive to the average person. It must be motivated by some definite objective, such as the purchase of a home or of an automobile or to send a son to college or to accumulate a certain sum by a certain age. Savings banks have recognized this psychological fact by the introduction of Christmas Savings Clubs, Vacation Clubs, Buy-a-Home Accounts, and the like, in their efforts to popularize thrift. Given a motive and the prospect of a definite, desired reward, and saving becomes an absorbing game. There are few greater pleasures than watching some long-wished-for end come nearer to attainment. Saving in one form or another is one of the most natural and practical of all human activities, but its effectiveness depends on the ability to systematize it.

Now, as a motive for systematic saving, there is none more worth while nor more enticing than that of accumulating interest-bearing investments. The man who saves for even so commendable an end as the purchase of a home achieves his purpose only by transferring his savings into another form of property which is non-productive, and, of course, the man who withdraws his savings for an automobile has not really been saving at all; he has merely been accumulating for one deferred expenditure. That may be justifiable, yet it is not thrift and it accomplishes no permanent good. The systematic saving of money for investment in sound securities, however, grows miraculously by the thing it feeds on. There is nothing in the world of finance more astounding than the rapidity with which money accumulates at compound interest. Likening that accumulation to a snowball rolling downhill is trite, perhaps, but it is a simile that cannot be improved upon. Both in speed and volume it increases momentarily after once it is given a fair start.

THE RAPID ACCUMULATION OF REINVESTED INTEREST

The following examples of what happens to small amounts when subjected to the magic of this compounding of interest will perhaps prove interesting and sufficiently impressive to carry home the point, even though they are a trifle bizarre.

Had the famous widow's mite (which we shall suppose to have been equivalent to our penny) been invested at 5% semiannual interest when it was contributed some 1900 years ago, instead of being used for current needs of the Temple, it would today have amounted to a sum so large we have no words to express it—a sum tremendously greater than all the money in the world. It would have grown to \$563,404,100,000,000,000,000,000,000,000.

Had it been possible to invest \$1 at 5% interest, compounded semiannually, on that morning in September of 1066 when William of Normandy landed in England and by defeating the Saxon army at Hastings changed the complexion of Anglo-Saxon history, that dollar would have become \$3,485,077,000,000,000,000 by today.

Again, if Columbus had stopped to deposit \$1 under a similar interest arrangement on August 3, 1492, instead of occupying himself so completely with the task of discovering America, he would today have had \$1,842,679,000.

Or, if some one had put aside \$1 at the same rate on the opening day of the Bank of England in 1694, he would now have a tidy credit of \$85,702.60.

The first United States bank, chartered by Act of Congress under the plan proposed by Alexander Hamilton, began business in 1791, only 133 years ago. In that relatively short time a dollar deposit unaided, save by 5% interest compounded semiannually, would have multiplied itself by 712. It would have a present value of \$712.13.

But the law prohibits this sure-fire method of accumulating all the money on earth for some future Croesus. It was largely to avoid this snowball accumulation of wealth

by compound interest that the law of mort main was developed during the Middle Ages, and today the alluring possibility of getting all the world's riches for your great grandchildren's great grandchildren by a modest investment for their account today is prevented by the law prohibiting the creation of any estate which shall be held intact longer than 21 years beyond a life now in being.

In compound interest every investor has in his hands so potent a means for accumulating wealth that the law dare not give it free play. Everybody should be rushing to get such benefit from this magic money-maker as he is allowed by law, yet 999 out of 1,000 are blind or indifferent to this one easy and sure road to affluence. Now, of course, the illustrations given above are purposely fantastic, but consider for a moment what practical results may be accomplished in a few years by combining systematic saving with careful investment and the reinvestment of interest.

The man who will regularly set aside a fairly substantial amount for investment, and will keep reinvesting the interest instead of diverting it to current uses, will have an estate quite astonishing in proportion to his annual savings before he realizes it. If a man saves \$50 a month for 30 years, he will have accumulated \$18,000. If he has been banking it in a bag concealed at home, or in a safety deposit vault, he will have just \$18,000—no more. If, however, he has deposited it in a savings bank at 3% he will have \$29,113.52, or, if he has invested in 5% bonds, reinvesting the interest, he will own \$41,608.82, and, if the bonds had paid 6% interest instead of 5% he would be worth \$50,227.67. This on an actual saving of only \$18,000. Not many people expect to have half a million dollars when they are 65, but if at the age of 30 they could begin to invest \$5,280 a year at 5% and keep the interest reinvested, they would have that sum. It is not necessary to depend on luck to become wealthy, for the ready effectiveness of compound interest makes consistent saving and investment attractive and puts a worth-while goal in every one's reach.

The table of figures shown below indicates what an important part compounding of interest plays in the accumulation of wealth. It is another academic example, but notice what happens by the mere increasing of interest rates. If \$1 were invested for a period of 300 years at a specified rate of interest compounded semiannually:

at 0% it would equal.....\$	1
2%	392
3%	7,579
5%	2,718,500
6%	50,387,000
7%	920,830,000

Notice the difference between the 3% total and that at 6% which a casual thinker might easily suppose would be approximately twice as large. So much for the discussion of what can be accomplished through investment and reinvestment of interest.

IMPORTANCE OF DETERMINING INVESTMENT REQUIREMENTS

In previous chapters the various types and classes of bonds from which an investment account may be built have been considered. The reader has been familiarizing himself with investment materials, and is presumably ready to approach the task of using these materials and of choosing wisely among them to build an harmonious and substantial financial structure. It is not enough that a bond man—or, for that matter, an investor—should merely understand bonds and be able to judge intelligently the merits or demerits of a given issue. A man might be an authority on qualities in brick, in stone, in wood, in cement, or in plaster, yet not know how to combine them appropriately in the construction of a building. What atrocities of design and plan would result if a bricklayer, or a stone-mason, or a plasterer undertook to erect a cathedral, unguided by an architect who could direct the proper selection and disposi-

tion of materials. Yet they would be no greater atrocities than we see when an investment account is built up in haphazard fashion by some one who has no idea of the proper correlation of securities—who has no conception of plan or arrangement—who has not vision of the financial structure he is hoping to create. Nothing on earth calls for more delicate perception, more thoughtful consideration, or a greater nicety of selection than the expert handling of an investment account (even apart from judging the merits of the bonds themselves). What is the right bond for one buyer may be the worst possible selection for another; or what may be an improper bond for a man today may be a wise investment for the same man at another time. The prescription of medicine requires no more skilful diagnosis than does the intelligent selection of bonds. Many people buy a bond, or bonds, simply when and because they have the money available and with no regard as to how their selections fit into the half-finished building. Too often an investor buys a wagonload of brick (to follow the building analogy) when a financial architect would know that cut stone was the only proper material to use.

The bond buyer buys other qualities than just the presumed safety of his money. Safety is, of course, the first and most important element for consideration, and it is necessary to determine just what degree of security the contemplated investment requires. But there are other desirable features existing in varying degrees in all bonds, and the purchaser must decide what degree of each is desirable. Rate of return, marketability, tax exemption, chance of profit, stability of price, acceptability for collateral, desirability from the standpoint of maturity—all these and perhaps other qualities determine the market value of a bond. They are features that must be paid for in proportion to the degree in which each exists in the security under consideration. Naturally, a person does not care to buy and pay for some investment feature he does not want, any more than he cares to pay an extra price for balloon tires

or four-wheel brakes if he prefers an automobile without them. He will not use bonds that comprise qualities which are valuable in themselves, but useless for his particular purpose, any more than a builder would use mahogany timbers for studding. That would be wasteful; so, unless one is willing to waste money wantonly, he will carefully analyze his investment requirements—decide just which features mentioned above are of value to him, and then try to find such bonds as combine only those characteristics, and each one only in such degree as he requires.

The most important decision confronting the investor is the degree of safety he should buy. He cannot get away from risk altogether, no matter what he does with his money, but he should not buy any more protection than he needs. A wealthy man can well afford to take a chance in the investment of \$5,000 which would be unwarranted for a woman of moderate means. A person entirely dependent on the interest from his bonds requires a high degree of safety, while a young man of increasing earning capacity, without family obligations, is not wrong in preferring a low measure of security and taking, instead, a high rate of return. Unfortunately, it works out that those who most need a large income from their investments are those who can least afford to seek it. It is another case of "Unto him who hath shall be given."

Of course, every one's effort should be to buy just enough investment security to assure the payment of interest and the return of the principal. Anything beyond that degree of security represents a waste of investment capital, and the excess must be charged up to poor judgment in buying or to the purchase of "peace of mind." If, being a civil engineer, you are asked to construct a bridge the greatest strain on which would be say 1,000 tons, you would use enough steel to carry that load safely and perhaps a bit more for insurance. But if you were so cautious, or so inexpert, that you used enough steel to carry a load of 2,000 tons you would have wasted a great deal of material. Just so it is a waste of investment

capital to buy more safety in a bond than just enough to carry the load. Some people must expend more than others in buying additional freedom from risk, but there is such a thing as a bond that is *too* safe for the ordinary person or purpose.

While obtaining that degree of security which the particular individual or investment account requires should be the first concern, it is the rare exception when a prospective investor sincerely approaches the matter from that angle. He may say, or have in the back of his mind, that he wants something "absolutely safe," but even while he says it, he is scanning the list and lingering over the offerings of highest yield, hoping against hope, perhaps, that he will see there that mirage in which alluring return and unquestioned security go hand in hand. Even those investors who consistently buy bonds of the better grades are drawn, and not always improperly, to the issues of highest yield within those grades. Just as some people order a dinner by looking down the price column and forcing their palates to find something acceptable at a certain figure; so, many investors approach their selections from the price, or income, angle, and convince themselves that the security of some bond carrying an attractive rate is acceptable. This method of selection is wrong, as it disregards the principle that the appropriate measure of safety should determine the decision. There is nothing more difficult than to induce the investor to overcome his eagerness for a slightly higher return than he should have, and to induce him to buy those issues which afford just that degree of safety which cold analysis of his case indicates that he requires.

PAYING FOR MARKETABILITY

Next to the nearly universal desire for unquestioned safety coupled with more than commensurate yield, comes the repeated demand for marketability. Some degree of marketability should be sought always, but there is a tendency

on the part of most buyers to overemphasize its importance. A bank undoubtedly should insist that its investments be very liquid, and an individual making a purely temporary investment is correct in buying only a readily salable issue; but it is the exceptional investor who disposes of his bond holdings before maturity and who, therefore, needs a high degree of marketability. The fact that a bond is instantaneously marketable indicates there is a constant demand for it, and as with any other commodity, the greater the demand, the higher the price. Thus, investors who seek bonds with wide and active markets are in danger of paying an unnecessarily high price while in reality what most of them need is merely the assurance of fair salability.

Another point for the investor to have in mind is the selection of a maturity appropriate to his needs. This point will be brought out fully under the topic of diversification, but a few observations will be made here. Banks, as a rule, prefer short-time securities, for they are less liable to price fluctuations than long-term bonds, and they also afford the certainty of early liquidation. Insurance companies, on the other hand, are quite willing to take long-term bonds, for there is little probability that the investment will be disturbed before maturity. Individuals, too, with some exceptions, prefer fairly long-term issues, if acceptable ones are to be had, so that the matter can be disposed of for as long a time as possible. Any type of buyer having in mind a definite future need for his funds would do well to select a maturity as close as possible to the date when he will need his money, rather than to rely upon the salability of long-term bonds at that time.

One of the most important matters to determine in building an investment account is the extent to which the owner is subject to taxation. The principal tax to consider in this connection is the federal income tax. This is a graduated tax which becomes very burdensome to persons of large income. It is a simple matter for any one to determine whether he should buy taxable or tax-free issues, for tables

are available showing clearly the net return from taxable bonds of different rates for people of different incomes. If it appears that this net return is no better than could be had from tax-free bonds, the logical course is to buy bonds of that description only. State income or personal property taxes may also have a bearing on what securities should be held; but these are so diverse that it is impracticable to give them consideration here, other than to suggest that every investor should ascertain how bond investments are affected by the laws of the state in which he lives and govern his selections accordingly.

These, then, are the principal points to analyze in determining one's investment requirements. The degree of safety required, the degree of marketability necessary, the maturity suited to the circumstances, and whether taxable or tax-free securities are the proper form of investment.

THE THEORY AND PRACTICE OF DIVERSIFICATION

The very last topic in the outline of this chapter is the very first that should have the attention of any one who is actually making investments. That is "The Theory and Practice of Diversification." It is said that Lawrence Chamberlain, author of *The Principles of Bond Investment*, has remarked with regret that in that book he included no discussion whatever of this subject, and added that, if he rewrites and modernizes the volume, as he has been urged to do, an entire chapter will be devoted to this important topic.¹

The diversification, or spreading, of risk is the first principle in investing money, and is quite essential, if an investment account is to be built on a sound basis. But while the common sense of this theory is so immediately evident that no one will dispute its importance, there is no principle more commonly neglected, or more indifferently followed. It is

¹ For further discussion of the principle of diversification, see John E. Kirshman, *Principles of Investment*, 1924, pp. 805-814.

a frequent practice of investors to put all, or a disproportionate amount of their funds into one issue, or into one type of issue, or into one locality.

The fundamental reason for limiting the amount to be invested in any one security to a small percentage of one's total wealth is that no investment on earth is absolutely safe. This fact cannot be stressed too emphatically. We speak carelessly of this or that issue as being "safe," but this is loose talk. What we really mean is that we believe it will prove safe. An investment is a safe investment only if it pays its interest promptly and regularly and returns the full principal sum at maturity. Now who can speak with full assurance about something in the future? We may have complete confidence that a certain bond will always pay its interest and repay its principal, but the fact remains that we cannot know—time alone will tell. "But," some will say, "there are Liberty bonds—certainly they, at least, are absolutely safe." Patriotically speaking, I will agree with them, and Englishmen will agree with each other that British bonds are absolutely safe, and the people of Switzerland will agree as to the unquestioned safety of Swiss bonds; but remember that less than 20 years ago the world would have given just as high a rating to bonds of the Imperial German Government as to any government security, and today they are but scraps of paper. A Roman in the days of Caesar would probably have been thrown to the lions had he questioned the soundness of a promise made by his government, or had he suggested that the empire would not endure forever, yet in the light of history his doubt would have been justified. Governments change and empires decay. It is not un-American to acknowledge the possibility that evil days may fall upon even our great nation.

Now, it is not the intention here to undermine confidence in Liberty bonds. Certainly to all intents and purposes they are what may be called absolutely safe, but it must be realized that some risk is involved in even the best invest-

ment. Nor can one escape risk by refusing to invest his money. He can put it in the bank; but banks have been known to fail. He can bury it in the ground; but even then a dog may dig it up. The only way to avoid financial risk altogether is simply to have no wealth whatever. The minute a few dollars are accumulated, hazard as a capitalist begins.

The aim of wise investment is to minimize and distribute risk, while keeping money profitably employed. This is accomplished by choosing only such investments as are sound and appropriate to one's needs, and then by limiting the amount placed in any one field of investment. The homely expression, "Don't put all your eggs in one basket," is the epitome of the theory of diversification. It is the best single bit of advice an investor can be given, and, if followed consistently and intelligently, the tragedies of wrecked fortunes will be avoided.

COMMON SENSE IN DIVERSIFICATION

Intelligent diversification is not achieved merely by the purchase of numerous securities. While buying bonds of a dozen different issues, each inferior in quality, is some improvement over putting all the money into any single one of them, it does not create a sound financial structure. It must be presupposed that each investment is selected with the utmost care. Diversification is not a substitute for caution or good judgment. It is merely a means of making a good list of investments better. It is an acknowledgment that an element of uncertainty exists in every investment, and is an attempt to save as much as possible if the lightning strikes unexpectedly.

Thorough diversification requires distribution from several different standpoints. Its chief object is the protection of principal, but mere convenience for the owner is also sought and served by diversification in certain directions. The term "diversification" should be used to apply only to

those features which assist in distributing risk, and the distribution which has only convenience as its motive is better described as "arrangement." Let us consider these various motives for diversification one at a time, taking first those which have safety of the investment for their end. First as to the amount that should be placed in any one security: To arrive at this, the unit of investment for the individual or for the account in question must be determined. Quite evidently, the investor whose total wealth is \$10,000 dare not buy as large a block of bonds in any one issue as would be entirely proper for an insurance company or a bank. The smaller the unit fixed, the more nearly will the principle of diversification be followed in every case, but it is not always possible to carry this theory to the extreme of having only a \$1,000 (or, for that matter a \$10,000) investment in any one security. While the average investor can readily find some good issue that he does not already hold, it is not always easy for the man handling an account that runs into millions of dollars to find securities not already included in his list, which measure up to his requirements. Large accounts buy from \$50,000 to \$1,000,000 of a single issue, and, of course, there are not enough issues of their sort available to permit the investment unit in such cases to be established as low as \$1,000 or even \$10,000. Furthermore, the care in handling an investment account is in proportion to the number of issues involved. The mere physical labor and nuisance of clipping coupons, preparing ownership certificates, and effecting collection is onerous even to the man with a dozen bonds, and encourages him to reduce rather than increase the number of issues owned. Another objection to scattering one's investments unduly lies in the fact that an investment once made should not be forgotten. Conditions affecting its safety should be watched constantly and the security disposed of should signs of possible danger appear. The more issues there are involved in an account the more difficult it becomes to give that account this careful supervision. These are suf-

ficient reasons for not scattering investments needlessly, or to accomplish no definite purpose. They are reasons, therefore, against buying fewer bonds of an issue than the investment unit permits, but they are not reasons for neglecting the principle of diversification.

There is no rule to follow except the rule of common sense in determining what the investment unit should be for a given account. Probably it should be established at some round figure which is approximately a certain percentage of the total amount invested. For a large account this figure should be less than 5% rather than more. Of necessity it will be a larger percentage for the investor who is just beginning to buy bonds from his savings. The first \$1,000 such a person invests cannot well be diversified. He could, of course, buy 10 different bonds of \$100 each, but as he is to become a regular investor, these "baby" bonds would not fit into his ultimate program. He is probably justified in putting the entire first \$1,000 into one bond; but as he is deprived through that course of the added security which diversification affords, the bond selected should be of the very safest type—a Liberty bond perhaps, or one of the admittedly superlative corporation issues—such a bond as is considered too safe for the ordinary purpose. Then, as this man's savings increase, he can broaden his list of holdings and ultimately his investment unit can be established at \$1,000, \$2,000 or \$5,000, depending upon what his earning power and saving ability indicate as proper. The only definite recommendation as to what the proper unit should be for an investment account under construction from earnings is that the amount which can be saved annually be adopted as that unit. That idea is perhaps as sound as any, but even that unit should not apply until a foundation has been laid through the purchase of from \$10,000 to \$20,000 in bonds of \$1,000 diversification. In the case of a bank or other large investment account, either private or institutional, the unit is rather easily and arbitrarily fixed at some round amount. The point is that *some*

unit should be established as a guide to intelligent diversification, even though it may not be strictly adhered to. There may be reasons sometimes for exceeding this unit, but it should be done knowingly and not merely because a large amount happens to be available and regardless of whether or not the purchases are disproportionate.

DIVERSIFICATION ACCORDING TO TYPE OF SECURITY

The next diversification measure for consideration is the distribution of investments according to the type of security, or, in other words, according to the character of the issuer. To refresh your minds, there are the following main classifications of bonds: Government, municipal, land bank, railroad, public utility, industrial, and real estate. It is a temptation to say that every investment account should include some desirable bonds of each division; and that would be true were it not that an artificial condition exists which splits all investment funds into two distinct classes and restricts each class as to the type of bonds which it can logically include. That condition is brought about by the federal income tax. This tax, exempting from its provisions certain types of bonds, gives those bonds an artificial value quite apart from the security which they afford as investments. A characteristic is thus created for these bonds that is of value only to those who are situated so as to profit by this exemption. It is only those who benefit by tax exemption that can logically afford to pay the added price that tax-exempt bonds command, and every investment account is illogically constructed which contains both taxable and tax-free bonds. This tax situation, accordingly, limits diversification of investments by discouraging some accounts from including corporation bonds and other accounts from including municipals. Of course, this artificial restriction to diversification can be disregarded, but only if one is willing to waste investment capital by buying a feature that is worthless to him. It is the writer's opinion that one of the most serious

objections to allowing tax exemption to municipal bonds lies in the fact that the small investor is discouraged from putting his money into that type of security which is admittedly safest and which he needs to have, therefore, much more than the enormously wealthy people who are now the buyers of municipals.

But with this one restriction regarding the selection of taxable or non-taxable bonds, it can be said that every account should be distributed in investments representing the best in all the different types. The good sense of this is so obvious that it hardly needs proof. It need merely be pointed out that to hazard one's entire fortune on the prosperity of the railroads alone, or on the soundness of public utility development and operation alone, or on the permanent well-being of our industrials alone, is to concentrate risk needlessly. It is possible that any one of these great classes of corporations might meet adverse conditions that would impair the safety of its securities, and while it is conceivable that all three might be affected at one time, it certainly is much less probable. It is well to have rather definite proportions in mind, moreover, for the amount of each class to be held. For example, a good diversification for the ordinary private investor might be: 15% foreign government bonds, 20% railroad, 30% public utility, 25% industrial, and the remaining 10% real estate bonds, or good preferred stocks. These proportions can be varied to meet individual preferences, but some such definite plan should be followed. There is too much haphazard buying, resulting in poorly balanced lists.

There should also be diversification within each class. All railroad issues should not be the obligations of one or two systems, nor even of one type of road alone, as all roads of a given type are subject to the same set of conditions. There should be perhaps bonds of a grain-carrying road, a coal road, a transcontinental line, a terminal loan, and an equipment issue. All utilities should not be gas, nor traction, nor power and light, nor telephone; nor should the

industrials all be based upon one industry, such as packing, or oil, or coal, or timber, or automobiles. They should be in industries so widely divergent by nature that depression in any one would not be likely to affect the others, and care should be taken to see that no one industry is too heavily represented in the accounts.

Another measure of diversification not sufficiently considered is the geographical distribution of risk; yet a grouping of interests in any one locality may prove disastrous even though all other principles of diversification are adhered to. If foreign governments are under consideration, it would be wise, of course, to have different parts of the globe represented rather than to have only European or only South American bonds. The economic and political reasons for this are obvious. Within our own country, too, geographical distribution is just as wise. One need only recall the plight of the southern states just prior to the World War, or the present condition of our great wheat-growing Northwest, or to speculate on the possibility of continued crop failure through drouth in California, coupled, perhaps, with uncontrollable ravages of the hoof and mouth disease, to realize that any one section of the country may experience hardships, which would impair the safety of loans made therein. Such conditions are likely to affect all investments in that region, regardless of class—railroads, utilities, industrials, and real estate might all suffer seriously under such circumstances.

It does not pay to be provincial in investments. Years ago, New Englanders were inclined to scorn the newer, more crude sections of the country, with the result that many a substantial estate was invested entirely in Boston and Maine, New York, New Haven and Hartford, or in some of the blue-blooded utilities and aristocratic industrials of that section. This smugness brought its own punishment, for evil days fell upon even this thoroughly established region and many people are working today instead of living on income from investments just because their fathers

thought the best of everything was in New England and did not bother with geographical diversification.

IMPORTANCE OF MATURITY DIVERSIFICATION

The next point to have in mind is diversification as to maturity. It would be obviously unwise to have all of one's bonds fall due at even approximately the same time, whether that time were 1 year, 10 years, or 40 years hence. That would necessitate the reinvestment of all your funds under one set of money conditions and at a time which might prove very disadvantageous. Prices for bonds might be so much higher than when the bonds then maturing had been purchased that a marked shrinkage in the income from the account would be unavoidable. The proper course is to have a portion of any invested fund mature every few years. Then if short-term issues are purchased when prices are high and long-term issues are purchased when prices are low, the investor will get at least an even break with changing conditions.

As a matter of fact, there is one real and ever-present danger to an investment account which not even this diversification by maturity can guard against satisfactorily—that is, the fluctuating value of the dollar in terms of purchasing power. Suppose you were asked today to invest \$100,000 for an estate to be liquidated in 1950, and suppose further that you placed it all in high-grade bonds due in that year. Your selection might prove so wise and so fortunate that every one of these bonds would be paid at maturity, but you can have no assurance that the \$100,000 the estate would receive in 1950 would then have the same purchasing power that the \$100,000 has today. The borrower may be paying off his bonds in depreciated currency; so that the estate will, in reality, have shrunk as much as 40% or 50%. Or, of course, it might work out the other way, and the estate might receive dollars of greater value than those you would now be investing. The point is that it is a source

of uncertainty and one of the greatest hazards in long-time investment, though one of the least realized. This is a fundamental weakness, which economists would do well to correct, if possible, by devising some form of long-term obligation on which interest and principal would be paid in a sum to be determined by index prices for important commodities, or by some other variable which would measure the true value of the dollar. Without some such form of repayment provided, the investor cannot completely protect himself against shrinkage in the value of his holdings. The best he can do in this direction would be to keep his funds in very short-time securities and thereby keep fairly well abreast of fluctuations in the value of the dollar. Diversification as to maturity is, however, a fair measure of protection, and much more feasible than trying to reinvest an entire account every year or two.

We have now discussed those forms of diversification the object of which is increased safety, diversification by amount, by type, by variety within the type, by geographical location, and by maturity. Let us now mention those forms of diversification which merely make for convenience. The income from most investments is utilized as it comes to hand—therefore, it is a good plan to select securities which by reason of different interest or dividend dates will provide an approximately even distribution of income throughout the year instead of concentrating it in certain months.

Next, while it would be foolish and wasteful to buy only bonds having a high degree of marketability, unless there were a strong possibility that the entire account would have to be turned into cash quickly—still, there is likelihood that any one will wish to realize on a portion of his investments prior to their maturity, for one reason or another. Accordingly, it is wise to diversify as to marketability, putting such portion of one's funds into active issues as will provide against the possible necessity of liquidation and putting the remainder into the slower-moving securities with their correspondingly higher yield.

HIGH AND LOW COUPON RATES

The selection of high or low coupon rates is hardly a matter of diversification, and though some feel that an investment account should contain some of each, it is an equalizing measure rather than one of diversification. Relatively few bonds are purchased at par. Broadly speaking, low coupon bonds are bought at discounts and high coupon bonds at premiums. Now, if only low coupon bonds are purchased for an investment account, the annual income will be unnecessarily small, while the principal amount in the fund will be increasing at the expense of the annual return. If only high rate bonds are purchased, just the reverse will be true; the income each year will be very large, but the principal sum will be diminishing, unless the premium for these high rate bonds is being amortized from income. To buy some high and some low interest rate bonds is, therefore, to approximate a balance, and, while a slipshod method, it is better than to disregard the point entirely.

There is no logic whatever in trying to diversify as to yield or as to tax features. Yield is supposed to be the measure of quality—of safety—and each investor should determine the grade of security he needs or desires and then be consistent in that decision. To build an investment account partly with the highest grade bonds, partly with so-called “cats and dogs,” and partly with securities of medium grades seems to me like using steel beams, rotted timbers, and assorted planking to construct a building, on the theory that the average grade would be about right. Of course, even the most conservative investor may want to “take a flyer” now and then, but any security acquired in that frame of mind should represent a bit of temperament and not become an expression of investment policy, or be dignified as diversification.

It has already been indicated that it is foolish to try to straddle the income tax question in choosing securities. An investor should buy either for tax exemption or he should

not. Let him determine that point and then do his diversifying in those types of security that are open to him. The subject of inheritance taxes has already been discussed here, but it may be well to point out the fact that they operate to discourage geographical diversification. Many states penalize non-resident owners of securities by imposing an inheritance tax on stocks or bonds of companies incorporated within those states. As this tax is in addition to a tax which must be paid in the state of residence, those investors who have the matter in mind (and far too few have, for it is one of tremendous importance) will be inclined to select only the bonds issued by corporations of the state in which they live. This course naturally tends toward concentration rather than toward geographical distribution and is to be deplored accordingly.

In this discussion it is assumed that bond investment is contemplated, though, as a matter of fact, the principles of diversification which have been covered apply with equal force to mortgages, or preferred and common stock investments. Some experienced investors believe in combining bonds and stocks in their holdings and consider that this represents diversification. They justify it on the theory that losses will occur in even the most successfully planned bond account and that unless there are some securities owned which afford a chance for profit to make up these losses, the account will tend to decrease. The expectation is that the stocks will provide the profit. Now, if stocks can be so surely relied on to bring profits, why bother with bonds at all? In the very nature of stocks they are more likely to cause losses than are bonds, or they would not have the concomitant possibility of causing larger profits. No—if losses from bonds are to be provided against—and they should be—it must be by a sinking fund created out of income. This is sound finance; relying on stocks to recoup losses is like relying on the roulette wheel to make good the deficits of one's business.

In this discussion of "Building an Investment Account"

the aim has not been to outline any definite program for each investor to follow. It would be an impossible task, for there should be as many programs as there are investors. No universal formula can be established. The choice of investments is entirely a matter of intelligent analysis of one's own particular requirements and the selection of bonds to fill those requirements as nearly as possible. Knowledge of security values and the ability to form a true estimate of the merits of those bonds which are offered is a first essential, of course. It has been attempted to point out here, in a general way, those considerations which one should have in mind when analyzing one's own needs. These are the same for the individual, the bank, or the insurance company. The person handling an account will have to apply these principles to his own case. It is not possible even to give examples of an ideal investment account any more than to show an ideal shoe. A shoe is ideal only as it fits the foot; an investment account is ideal only as it fits the requirements of the individual case.

It may not be easy for an individual to analyze his needs. He may not know just what degree of safety, or of marketability, or of return, his case calls for. That is where the investment banker comes in. That is why the investment banker should be an analyst first and a salesman afterward. He should supply that ability to determine his clients' needs which most of them lack, and prescribe to suit the case.

The three following fundamentals are involved in building a sound investment account:

1. Ability to judge security values;
2. Ability to analyze the requirements of the particular account and select appropriate investments;
3. Care to effect thorough diversification and thereby distribute the ever-present element of risk.

Not any one, not any two, of these will suffice, but if all three are brought to bear, the ends of safe investment will have been well served.

SELF-TEST QUESTIONS

1. Why is saving a necessary procedure in modern life? Why is it so often unattractive?
2. What determines the proportion of your income which you save? That which you spend?
3. Why is it impossible to take full advantage of capital accumulation by compound interest?
4. In determining one's investment requirements, what factors should be considered, and why?
5. Try to discover what degree of safety your own investments require. Tell how you reached your conclusions.
6. Answer Question 5 concerning marketability, tax features, maturity.
7. What is meant by diversification of investments? Explain the importance of diversification.
8. In how many ways may an investor diversify his holdings? Show the value of each.
9. Suggest a plan for diversifying your own investments.
10. Can one prevent impairment of his principal purchasing power by diversification of investments? Why or why not?

XVIII

GOVERNMENT REGULATION OF SECURITIES

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Beginnings of "blue sky" laws. Wide variations among state acts. This legislation in its experimental stage. Important principles of different forms of acts. Exemption of various securities from regulation. Regulation by registration of dealers. Regulation by qualifying the security. Fraud acts effective. Law not a cure for ignorance and avariciousness. Better Business Bureaus and other business organizations combating fraud. Work of Advertisers and Investors Protective Bureau, Inc., of Chicago.

AMONG the outstanding developments of the past decade in connection with the public sale of securities is the governmental regulation of such offerings. The beginnings of it go back a little more than 10 years, in the year 1911, when the legislature of Kansas passed the original Securities Act. The name "blue sky" had for a long time been used as a description of securities, the principal basis of which was somebody's glittering hopes and dreams, and because the law was directly against such issues this name properly became attached to these securities acts, so that today the name commonly used in referring to securities acts is "blue sky" laws. Their name in law is usually "securities acts" and such acts have now gone upon the statute books of all but two or three of the states of the Union.

The variations among these acts are much more numerous than their resemblances. Each state has to a very large extent gone on its own in the development of its statute, with the result that only attorneys specifically trained in these matters can give the proper guidance to the banker or corporation contemplating the public distribution of an issue of securities. This lack of uniformity has been a

crying evil in "blue sky" matters. It has had the attention of the National Association of Securities Commissioners and it has had the constant study of the appropriate committees of those having to do with the making of securities, from bar associations, bankers' associations, or chambers of commerce, and it is to be earnestly hoped that the time is coming when something of far greater uniformity than the present situation can be accomplished.

This type of legislation has been, of course, in its experimental stages, and it was to be anticipated that almost every possible method would be tried in one state or another and that out of the experience thus gained there would be developed a greater degree of uniformity which would find expression in wiser laws, after the wisdom has been bought at some times very great cost to the economic community.

To attempt an analysis of these varied statutes would be going far beyond the confines of this text, but in a general way the following important principles have found expression in one or more of these statutes.

CLASSES OF SECURITIES EXEMPT FROM REGULATION

Substantially all of the statutes recognize the existence of a large body of securities in which the danger of fraud or of loss from uneconomic basis is so small that it is unnecessary for administrators of securities acts to attempt to pass upon them. In such a class fall such securities as these:

1. Issued or guaranteed by the United States or by any state or political subdivision or agency thereof;
2. The securities issued or guaranteed by any foreign government with which the United States is maintaining diplomatic relations;
3. Securities issued by national banks, federal and joint stock land banks;
4. Securities issued or guaranteed by a corporation owning or operating a railroad or any other public service utility, particularly if the utility is subject to regulation by a public commission;

5. Securities issued for educational, benevolent, or charitable purposes and not for profit.

To securities such as named above complete exemption from the operation of the securities acts is given in many instances, and such exemption is also given in many states to certain other types of securities, such as those listed on the New York, Boston, or Chicago Stock Exchanges, the national exchanges, or other recognized and responsible stock exchanges approved by the commission.

6. Short-term negotiable and promissory notes or commercial paper such as banks purchase.

7. Notes secured by first mortgage if sold to a single purchaser at a single sale.

In many of the acts also there is an exemption of securities which have been outstanding for a long period and which have suffered no default in payment of principal and interest or dividend.

In addition to the above exemptions of certain securities, these laws usually exempt certain types of transactions, such as judicial, executors' and receivers' sales, sales of collateral securing a bona-fide debt, isolated transactions for the owner's account, transactions between a corporation and its old security holders in the nature of a stock dividend or any reorganization, and securities transferred or exchanged in connection with consolidations or mergers.

Moreover, there is also one class of transactions which is nearly always exempted, namely, sales to banks, insurance companies, and dealers in securities, it being felt that such sales are to buyers well equipped to look after their own interests and not requiring the guardianship of the state to protect them from their own folly.

It will be readily realized that in many of the earlier laws, the necessity for exempting the above securities and above transactions was not expressed, but actual operation under the laws so promptly demonstrated the necessity for such exemptions that they have come to be looked upon

as essential in any properly drawn "securities act," for it will be seen at the first glance that if the state is to enter into such transactions, the delays would be so onerous as to be impracticable, and the commission formed to pass upon such issues and transactions would have to be so large that it would be an impossibly great expense to the state.

Moreover, the prime purpose of these laws and their justification has been to block, not those types of financial operations, but the one in which the great bulk of fraud occurs; namely, the sale to private investors of issues of a fraudulent character, or issues fraudulently sold. In almost all cases such sales are of stocks or other forms of equities. To this prime purpose, however, there has been added another purpose in many of the acts; namely, an attempt to classify securities as to their merits by drawing a line of distinction based upon valuations or actual earnings records between what are loosely termed "investment issues" and "speculative issues." It will be realized that in such procedure a vastly complicated task is assumed.

REGULATION BY REGISTRATION OF DEALERS

As would be expected, these laws have been prepared in the first instance by legislators whose intentions were unquestionably most excellent, but whose experience was so limited that they have merely added confusion to a problem already sufficiently complicated, which resulted in stopping the every-day business of finance; and for many years past the efforts on the part of the administrators of these "securities acts" and of the committees of the Investment Bankers Association of America and of other associations interested in securities, have been largely devoted to reducing this confusion and interference. Such efforts have taken the form of broadening the list of exemptions wherever it could possibly be done safely, or recognizing the fact that there are certain dealers whose operations are so well established and thoroughly legitimate that the commissions can give them

certain leeway under proper safeguards to proceed with the necessary promptness in the conduct of their business. As an instance of one type of improvement in such acts may be mentioned the provision that certain dealers who have been duly registered with the commissions and admitted to do business in the state after filing a surety bond with the commissions, may offer in advance of formal qualification securities they desire to sell under an agreement that approval will be obtained by subsequent filing of complete information.

Such surety bonds can rarely be obtained by houses not in good standing in a financial community, so that the commission has that protection against a known crook or a dealer of inadequate financial stability. Moreover, the commissions themselves soon acquire a pretty good idea of who's who in finance, and are in a correspondingly improved position to determine whether a particular dealer should be admitted to such a list.

REGULATION AS RELATED TO THE SECURITY ITSELF

A further step forward in making these "securities acts" workable is the plan by which certain types of securities of the better grades are admitted to sale simply on the notification to the commission of such tender being made. That plan has been worked out more in detail in some recent acts, and it is a distinct step forward which should operate to reduce to a large extent the burden of the commission in regard to issues that are rarely subjects of fraud, either in their character or their method of selling. Under such a provision, authority is given the commission, on its belief that such an offering might work or tend to work a fraud, to suspend the right to sell such security pending further investigation.

Under this plan securities not exempt and not entitled to registration by notification must be qualified in advance of their offering by the filing with the commission of the neces-

sary data to enable the commission to determine that the proposed sale would not be fraudulent or work or tend to work a fraud upon the purchaser. Moreover, dealers and salesmen are registered so that the commission is given that further check upon the business being conducted within its state.

These securities acts have had their origin in the belief that through misrepresentation a large number of people have been induced to invest their funds in fake enterprises, but there has been, from the beginning of these laws, a serious question as to whether they have added anything actual to the legal protection of the investor.

The general fraud laws which are upon the statute books of every state have been as available to the purchaser of securities as to any other person who believes he is a victim of fraud, and it is an open question in the minds of many serious students of these securities acts whether anything of substance was added to the protection of the investor by the creation of these elaborate laws. The fact remains, however, that the laws are with us and that the securities commissions created under them have been functioning for a number of years, so that the discussion as to whether the laws are of genuine value is entirely academic. We have the laws—the practical phase of the matter is how to make them of the greatest possible value.

FRAUD ACTS EFFECTIVE

One kind of "securities acts" differing quite radically from the typical "blue sky" laws referred to above is the so-called "fraud acts," a type of legislation which has been found in certain states to work satisfactorily when given adequate administration. The Martin Act of New York and the Securities Act of Maryland are examples of such laws. They constitute, in their essence, primarily, a provision giving to the proper state officials the power to enjoin the offering of a security the sale of which would, in the

opinion of such officials, work or tend to work a fraud upon the purchaser. Provisions are made for the prompt hearing of the case so that in the event the official is in error the ban can be promptly lifted.

These acts also take good care of another class of fraud which has become very general in recent years; namely, the modern form of "bucket shop." The securities sold on the instalment plan by these so-called "bucket shops" are often themselves beyond criticism, and usually of a type not covered by any "blue sky" legislation, but it is no part of the program of these "bucket shops" that the buyers of those securities on the partial payment plan should receive their stocks. About the time they have secured a large number of people paying on the instalment plan, the funds have disappeared and the instalment buyer is left with his money gone in whole or in part and the securities undelivered to him. A number of cases of this type have received a great deal of public attention, particularly in the cities of New York and Chicago in recent years.

For many years prior to the enactment of such statutes, those engaged in the legitimate business of handling securities found constantly that a certain number of people were losing their money in business ventures. In fact, the records of the commercial agencies show that upwards of 80% of all new business ventures fail, but these same records disclose that only a small fraction of the failures are due to fraud, and the bulk of the failures are due to legitimate business errors and misfortunes.

LAW NOT A CURE FOR IGNORANCE AND AVARICIOUSNESS

The truth of the matter is that the human being is an avaricious animal eager to secure an inordinate return upon his funds, a return much greater than can be supplied from any ordinary business venture. In order to get such a return he takes chances in such speculative ventures as mining, oil production, speculative land operations, patents,

and other like ventures, which hold out alluring dreams of sudden wealth with little, if any, effort and very little capital. The slow, laborious process of saving money by the savings bank route, by the purchase of conservative securities through dealers of established reputation for integrity and knowledge of their business, and legitimate, sound real estate investments does not appeal to the imagination of a large number of people. The result is, of course, that the larger proportion of funds so used in speculative enterprises is lost. The cupidity of these speculators offers an attractive field for the illegitimate promoter. As a matter of fact, the frame of mind of the illegal promoter is hardly more blameworthy than that of the illegitimate speculator. The plea of ignorance is, however, one that can legitimately be made in behalf of these unwise owners of funds, and there is also no doubt that the plea that they have been lied to is in many cases true. There is no cure for their ignorance but the lessons of experience, either their own experience expensively gained, or the experience which they can obtain through doing business with houses whose personnel is able to give them the benefits of the wide knowledge and experience such houses have themselves gained. The admonitions from such houses, however, fall all too often upon deaf ears. Many of these small speculators seem literally to despise their own funds and would rather lose them in an effort to acquire sudden wealth than to follow the much surer road of careful accumulation. Of course, if any of their capital survives their disastrous experience they become conservative investors eventually.

We have now had several years of experience with these laws in actual operation. A certain number of prosecutions have been conducted under these laws and in some cases convictions have resulted; so I do not believe that today there can be any doubt that some actual good has been accomplished. Moreover, the very existence of a "securities commission" with its wide authority has served as a deterring influence against many would-be crooks, and the com-

mission's refusals of approval have, beyond all question, blocked many promotions of a fraudulent character. It is not to be doubted, also, that the labeling as required by the laws of the offerings of many speculative enterprises, as such, has served as a warning to some ignorant investors that they were putting their funds into a speculative rather than an investment security.

This has been accomplished, however, at a very great expenditure of money and at a burden of expense and delays upon legitimate business so large as to leave wide open the question as to whether these laws have cost us more money than they have saved. They constitute, nevertheless, a most interesting experiment in regulatory legislation, an experiment that had to be made at some time, in any case, in order that a definite answer could be written as to the question of its value.

In certain of the states a corps of devoted public servants has had charge of the administration of these acts, and there is due to them an acknowledgment of their conscientious and earnest efforts to protect the citizens of their states from fraud. In certain other states the operations have been incompetent and negligent and properly subject to severe criticism.

The frequent changes which take place in administrators of state governments result all too frequently, however, in the removal from office of commissioners who have really learned their business and have become expert in the administration of the law and the filling of the positions with men who have to start at the bottom and learn the whole thing all over again to the great detriment of the legitimate interests whose operations are hindered and also to the detriment of the proper enforcement of the law against actual frauds. This is the penalty which the administration of securities acts suffers with so many other activities of our commonwealths under conditions of shifting personnel inevitable in our form of government. It is the earnest belief of those who have had most to do with the administration of securi-

ties acts that the securities commissioner should hold his office for a long term of years, in order that he may practice for a long time with the efficiency which he is learning in the earlier part of his terms.

It would, perhaps, be unreasonable to expect these laws to be ideal in form or administration so early in their history. They have, on the whole, been constantly improved, and it is, perhaps, reasonable to anticipate that with the growth of experience their administration may achieve a position of dignity and value comparable to that already achieved by the administration of the state utilities regulation acts. In any case, this is a consummation devoutly to be hoped.

BETTER BUSINESS BUREAUS

One of the most important features of the development of protection to investors has been one quite aside from public regulation, although advantage has been taken of the "blue sky" laws of the state to aid in their work. In some 40 cities the agencies which have contributed most to this work are known as the "Better Business Bureaus." These agencies have been backed by the newspapers, the bankers, advertisers, and the business community generally.

Their first procedure, naturally, has been to take advantage of the almost universal attitude of the responsible papers to refuse advertising space to promoters whose wares or methods were illegitimate. Too much praise cannot be given to American publications for their far-sighted and earnest cooperation in this respect. They have realized that the substantial sacrifice which they made in the way of loss of advertising revenues was more than made up by the prevention of swindling and, moreover, they have maintained their self-respect by keeping their columns clean.

The organization which functions along this line in Chicago is known as the Advertisers and Investors Protective Bureau, Inc., which has been in existence for about five years and which is conducted with the approval of the Chi-

cago Association of Commerce, the Illinois Chamber of Commerce, the Central States Group of the Investment Bankers Association of America, Chicago and Cook County Bankers Association, Chicago Association of Stock Exchange Firms, and the Illinois Bankers Association. It has been used for investigations for the Secretary of State under the Illinois Securities Law. Its manager at present is A. G. Davis, who has from the beginning been connected with the administration of the Illinois Securities Law. Its officers and board of directors constitute one of the most representative groups of business men in Chicago and its work has been of great importance. In a recent publication it summarizes as follows its more important accomplishments during the five years of its existence:

Newspaper Censorship. By arrangement with the principal Chicago newspapers, its manager has cooperated as advisory censor of financial advertising, with the result that during the past five years copy describing over \$250,000,000 of questionable oil, mining, and other securities has been rejected—necessarily involving a large saving to the investing public and inuring to the benefit of the legitimate dealer. A comparison of the financial advertising in the Chicago dailies with that in the newspapers of the other principal cities demonstrates that it is difficult to exaggerate the importance of this cooperation between the press and the Bureau.

Bucket Shops. It has been active in cooperating with public authorities in the suppression of "bucket shops." This campaign during 1924 has been especially successful and has resulted in the closing up of many disreputable concerns. Approximately 40% of all the evidence presented in this connection was assembled and made available by the Bureau. Among recent notable examples of houses closed through the efforts of the Bureau may be mentioned organizations that previously had defied the efforts of the law to close them. The campaign against so-

called bucket shops will be given increasing attention by the Bureau. It will be under the supervision of a special committee, and every effort will be made to secure the conviction and imprisonment of these persistent perpetrators of fraud.

Recovery of Funds. The Bureau has caused to be refunded to purchasers of fraudulent securities over \$950,000, mostly in small amounts and to people of small means and little experience.

Cooperates with Securities Department. It has served as a connecting link between the investment bankers and the Chicago Stock Exchange and the Securities Department at Springfield in the original drafting, amending, and enforcement of the Illinois "blue sky" law.

Its manager has acted as a special investigator for the Securities Department at Springfield and in this capacity has been instrumental in causing the rejection of many millions of worthless securities.

Assists Investment Dealers. It has assisted investment houses daily in determining the proper classification of securities and in preparation of the various schedules necessary when qualifying securities in this state. It has been frequently consulted by the Department on all matters relating to the securities act, and many of the rulings tending to facilitate the prompt passage of unquestioned issues through the Department were obtained through its cooperation.

Acts as Information Bureau. It has acted as a source of information for the credit department of banks and financial houses seeking information concerning the status of securities under the "blue sky" law.

Cooperates with Inquiry Commission. At the request of the Securities Department, the manager sits as one of an unofficial inquiry commission, consisting of an assistant states attorney and a representative of the Secretary of the

State of Illinois. The object of this commission is to give an opportunity to alleged violators to show cause why they should not be prosecuted. This avoids unnecessary publicity for inadvertent violators and tends to prevent prosecution where "welching" is the aim of the complainants. Many hundreds of cases have been arraigned before this commission, largely on the initiative of the Bureau.

In conclusion, one point should be made with the greatest emphasis; namely, that no matter how good a law may be, its greatest merit lies in its enforcement. The conclusion to which any one who has observed the working of these laws is driven must inevitably be, that the prevention and punishment of fraud depend far more upon the intelligence, vigor, and fearlessness of the officials charged with the enforcement of the laws than it does upon any elaborate machinery which a particular statute may devise. Perhaps when all is said and done, the greatest contribution which the recent era of "blue sky" legislation has made to protecting the people's funds, is the separate organization of a department specifically charged with the duty of enforcement.

SELF-TEST QUESTIONS

1. What is meant by "blue sky" law?
2. When was the first "blue sky" law adopted? Where? What is the present status of such legislation?
3. Why should certain classes of securities be exempt from "blue sky" law regulation? Explain fully. Name these classes.
4. What is meant by regulation by registration of dealers?
5. What is meant by "qualifying" a security?
6. What is a fraud act? Discuss its effectiveness.
7. Can law give the same protection to the avaricious and thoughtless as to the thoughtful and fair-minded? Why or why not? What is the chief weakness in trying to protect people by law? Discuss fully.
8. Name the types of business organizations engaged in combatting fraud and their operations and results.

XIX

INVESTMENT TRUSTS

By ROBERT STEVENSON, JR.,
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Definition of investment trust. Foreign financing as cause of American interest in investment trusts. British investment trusts, organization, purpose, and methods of operation. Capitalization of British investment trusts. Three requisites in success of British investment trusts. Diversification and reserves in trusts. United States situation not fully analogous to that of England and Scotland. Trust does not eliminate small investor's inability to discriminate between reputable dealers and the questionable. American investment trust developments.

THE term "investment trusts" has been rather freely applied to different forms of financial organizations whose function is the investing of money in the securities of corporations, governments, or political subdivisions solely for income yield and possible appreciation and not for promotion, financing, or control purposes. It is this purpose of the investment trust that has led to the use of this general term, whether or not the "trust" is actually a trust or a limited liability company, a state corporation, or possibly a corporation organized under the federal authority of the Edge Act. In this discussion the general term will be followed, regardless as to whether it applies to an actual common law trust or to a corporation.

An "investment trust" may be called a cooperative form of investing. Its purpose is to provide safety and an attractive yield through presumably superior management and through a wide diversification of holdings. Within the last few years American attention has been focused on the "investment trust" because the United States has become the creditor nation of the world and many foreign securities

are offered in this country. It was logically assumed that a central organization employing expert investment management could select securities more safely and profitably in this, to Americans, new investment field, foreign securities. England and Scotland had confronted a similar experience in foreign investments and had developed the famous and generally satisfactory British investment trust. This institution had proved of incalculable benefit to Great Britain. It had conserved the resources of thousands of investors, large and small, by enabling them to invest safely in many foreign and domestic securities, through the investment trusts. It had increased the national income by providing the discriminating judgment that put British capital into dependable employment abroad. Finally, in the World War, when every resource of the British Empire was needed, these accumulations of foreign securities in the many investment trusts immeasurably aided Great Britain in maintaining her credit abroad

BRITISH INVESTMENT TRUSTS

As the investment trust has had its greatest development and widest use in Scotland and England, it may be informative to set down here a brief recital of its development there. The first of these were formed in 1863. Soon others were organized, and today some 150 British investment trusts are listed on the London Stock Exchange.¹ Leland Rex Robinson, American Trade Commissioner in London, says that the first British investment trusts developed around the offices of attorneys and accountants who were interested in the administration of large estates. From the custom of one large investor giving the management of his investment holdings to an experienced and trusted attorney or accountant, it was a natural step to forming a trust in which a number of investors might join by buying the shares or debentures of these trusts. In fact, that is just what they

¹Kilbourne, Russell D., *Harvard Business Review*, January, 1925.

did, created a trust in which the trustees, usually three or more, were authorized to buy, hold, and sell securities, for investment purposes, according to their best judgment and with very little restriction to their activities.

Thus these earlier investment trusts were actually common law trusts, wherein the trustees, or managers, had great latitude. They could exercise their own discretion in buying securities, selling them as they saw fit and buying still other securities, without great interference from the stockholders. With capable, honest management this trust form of organization has its advantages. The capable and honest trustees made it their business to know what to buy and when to sell, when selling offered an opportunity of profit or an avoiding of loss. They could exercise that expert judgment without the delay or hindrance that might be imposed by other forms or organizations.

Up to 1879 most of the British investment trusts were unregistered common law trusts, but in that year, says Lawrence M. Speaker, the courts declared these organizations illegal.¹ The "trusts" then became limited liability companies. This change was largely one of form, for the British investment trusts still retain much of their managerial independence and one significant characteristic is that generally they do not put up their security holdings as collateral against their own debenture issues. This characteristic is mentioned here because it varies with the usual custom in this country, where financial organizations with investment trust attributes generally use their security holdings as collateral for their bond issues.

THREE SOURCES OF CAPITAL

The British investment trust generally obtains capital through three classes of its security issues, although, to be sure, it could finance itself with two classes or with one

¹Speaker, Lawrence M., *The Investment Trust*, A. W. Shaw Company, 1924, p. 12.

class. The first class is the deferred shares, analogous to our common stock. In this the control is vested. Next are preference shares, or preferred stocks, which generally carry a cumulative dividend of 5% and may have certain participation privileges. The third class is the debentures issued by the trust, which are a prior charge on all the trust's holdings, although they are not collateral trust bonds. These debentures usually carry 4% and sometimes 4½%.

It must be remembered that one great impulse toward the developing of the British investment trust was the lowering of the rate on British consols. As long as the empire's first investment carried 5% there was little opportunity for the trust. But consols were refunded into 4% issues and still later into 3% issues. The country was increasing in wealth production. There was a dearth of domestic investments. The several times that Englishmen had almost literally "gone wild" in foreign speculation, including the "Tulipomania," the "Bubble Days," and later in the American expansion periods prior to the crash of 1837, had taught a hard lesson. The investment trust, offering expert investment service, with trustees or managers eminently fitted to know the higher-yielding foreign securities and to select them dependably, appealed to the thoughtful. With the decline in the consoli rate, investors were attracted by the 4% and 5% debentures and shares of the trusts. In such shares and debentures they could have much greater safety and an infinitely wider diversification than if they themselves attempted to select among the doubtful and the dependable foreign securities.

The ratio among the capital issues of the British investment trusts has remained rather steady. It is a fairly accurate generalization to say that 30% of deferred shares, 30% of preference shares, and 40% of debentures represent their capitalization ratio. To be sure, this ratio will vary quite considerably among different organizations, but these figures are representative and are typical of the conservative proportion of debenture capitalization. This is in

quite a contrast to our land bank and Edge Act corporation ratios. Our Joint Stock Land banks may issue their bonds to the amount of 15 times their capital and surplus and the Federal Land banks, 20 times their capital and surplus. The Edge Act, adopted December, 1919, permits a corporation organized thereunder to issue bonds to the amount of 10 times its capital and surplus. But in these three American financial institutions the securities they buy must be trusted as collateral for their bonds.

BRITISH SUCCESSES REFLECT EFFICIENT MANAGEMENT

The foregoing capitalization ratio contains an indication of the ability of the British trusts to interest the highest type of investment mind and integrity in its management. If the securities the trust held yielded an average of 6%, that yield would pay the deferred shareholders, who exercised control, very handsomely, since 40% of the capital, represented by the debenture issues, could receive only 4% or 4½% and the 30% of the capital represented by preferred shares could receive only about 5%. There would be a wide margin remaining for distribution among the deferred shareholders. Hence, it is not surprising that these trusts so frequently have been managed by men of superior investing ability, who knew what to buy, when to buy, and how long to hold it, and who were in a position to obtain much advantageous information. In the year 1923-1924, the 25 largest British investment trusts, says the *Financial Times*, of London, after paying preference dividends, debenture interest, and all expenses and carrying 2.84% over to surplus, paid their deferred shareholders 8.04%. The year's expenses for these 25 trusts average 0.42 of 1%. It is very common for their expenses to run quite a bit lower than that. Lawrence M. Speaker, in his book, *The Investment Trust*, gives a table of operation costs of a number of British investment trusts, and their yearly operating costs run from 0.20 to 0.47 of 1%.

Three attributes have been chiefly responsible for the development of the British investment trust. They are:

1. Managerial ability of trustees or directors
2. Diversification of holdings
3. Low operating costs

Not every British investment trust has been successful. Some have failed ignominiously, either through misfortune, incompetency, or dishonesty. On the whole, however, their record has been admirable. The one great factor in this has, of course, been management. The well-managed trusts have retained directors who could exercise an almost world-wide judgment in buying and selling securities, as an investment function. Some of the trusts participate in underwriting issues and perform other financial services, but their chief activity is keeping their capital invested in as high-yielding securities as is compatible with safety. These supplementary activities of the trusts are mentioned because it is important to accurate conception of trust management to realize that the management is usually in close touch with, and often an actual part of, the inner workings of the financial world and, therefore, is in advantageous position to obtain complete and accurate knowledge of financial matters. Quite often men of very large interests are interested in investment trust management. This may be an advantage or a disadvantage. With a conscientious man, fully aware of his duties as trustee, it is a great advantage for the trust. With a man who might use his trusteeship to unload, for his own profit, doubtful securities on the trust, it is a considerable menace. This, to be sure, is one of the abuses to which the investment trust, as well as other forms of business organization, is susceptible.

WIDE DIVERSIFICATION ASSURES STEADY EARNINGS

Many of the British investment trusts have their investments in from 200 to 500 different securities. Some of them have varying restrictions as to limiting the amount that

may be invested in any one class of business, in any one country, and so forth. They obtain a wide diversification by buying the securities of different countries, both government and municipal issues as well as corporation issues. There is also a wide diversification among different classes of securities, bonds, preferred stocks, common stocks, and debentures. It is significant that the trusts that have maintained the soundest diversification and have held more closely to a strict investment policy, without taking promotion chances, have the best earning records during the many years these organizations have been operating.

Most of the trusts are committed to a policy of building up reserves. Leland Rex Robinson, American Trade Commissioner in London, characterizes these reserves as "visible" and "invisible" reserves. "Visible" reserves are the portions of net income from interest or dividends of the trust holdings which are set aside for reserve purposes. "Invisible" reserves are the appreciations in holdings. "Investment trusts," says Mr. Robinson, "never distribute as dividends any profits realized on the sale of their investments. These profits go into a reserve account or are immediately used to write off depreciated securities. In the articles of association a condition of this kind frequently appears, but whether expressly provided for or not, it is always followed. This is in spite of the fact that the courts permit accretions of capital, when realized, to be brought into the profit and loss account and dealt with accordingly. The reasons for this practice are to accumulate reserves which will steady the capital account and to leave income free for distribution."

RESERVES ARE IMPORTANT FACTORS

"Technically," says Mr. Robinson, "these funds from profit realizations are used to write down the cost of investments." He continues:

"The result of using capital profits to write down cost

of investments is that generally a successful investment trust's annual valuation of its holdings will show a large margin above the balance-sheet figure. It is this margin which constitutes its 'inner reserve.' Stock exchange values may tumble until this inner reserve is more than used up, but no note need be taken of it in the balance-sheet. In such a case the 'visible' reserve is generally a further element of safety. If values are buoyant, the trust may transfer from its 'invisible' to its 'visible' reserve, or, in other words, add to the reserve figure on the debit side, and consequently mark up its 'investments' total. Further appreciation in its securities may lead to the distribution of bonus stock, and the corresponding transfer from reserve to 'issued' capital. It is in this way that profits on realizations are occasionally 'distributed.' As the dividend rate is adjusted to the greater volume of outstanding stock, the recipient of the bonus shares gains little advantage, except from the higher selling price of his larger holdings, unless a more liberal policy in distributing income is adopted at the same time."

In briefly reciting the history of one of the typical successful investment trusts through a period of years, Mr. Robinson adds:

"One cannot fail to note that the uninterrupted dividend is due to the way in which the 'invisible' reserve absorbed a large part of the shock of heavy depreciation, and the revenue surplus and 'visible' reserve further cushioned the blow. Through the times of war, peril, and post-war adjustment the company passed serenely. . . ."

In considering the possible appreciation in investment trust holdings, the advantage is apparent that the well-managed trust can gain by liquidating when prices are high. If there are depreciations in sound securities, the trust loses nothing by wise waiting, since its income is not interrupted. In fact, the well-managed trust can continue to pay dividends in the face of a capital depreciation. It is this ability to select securities that will yield regularly, even though

their market price depreciates, that is a major point with a number of writers who have suggested the investment trust as the means of the small, inexperienced investor obtaining the most expert and dependable investment service by making his investments through such a trust.

UNITED STATES SITUATION NOT FULLY PARALLEL TO GREAT BRITAIN

On the surface this may seem quite logical, but as we examine further it is apparent that the same conditions do not wholly prevail in the United States as in Great Britain during the early use and development of the investment trust in England and Scotland. It is true that the United States is now the world market for foreign securities and that the average investor has little experience in, or knowledge of, these securities. It is true that some such investing organization as a dependable and capable investment trust has facilities and ability to select foreign issues that the individual investor cannot possess. Further, it is undoubtedly true that a number of sound foreign issues offer higher yields than sound domestic securities, and that it is important, in extending our world commerce, that we supply credit to many parts of the world. But here the parallel, as between financial Great Britain of 1860 to 1890—the period of the greatest activity in forming investment trusts—and financial America of today, practically ends, because:

The United States, although it has advanced greatly, is not yet fully equipped as to capital installations. It still requires an increasingly larger capital investment in the development of its resources. There is and undoubtedly will be for some years to come a great need of huge domestic capital issues and a consequent demand on domestic investment funds. There is now a mild shortage of good bonds, as compared to investment demands and as compared with the lack of demand in 1923 and in early 1924. This, how-

ever, is not a symptom of a permanent condition, but one of the recurrent phases of the investment market. We are not yet financially a "right little, tight little island," compelled to go outside our borders for a great portion of our sound and higher-yielding investment securities.

It is the writer's belief that the comparative extent and the effect of America's gold holdings have been greatly overemphasized. We certainly have more gold than we need, but this margin is not so great as is popularly pictured. There has been so much talk about our huge gold surplus that many have forgotten that the volume of our credit needs are increasing. It is not solely because of depletion of the gold holdings of a number of foreign countries that these holdings are insufficient. In several instances countries have larger gold holdings than before the war. The trouble is that their gold holdings have not been able to keep pace with their credit expansion. Our gold expansion has exceeded our credit expansion, but it must not be forgotten that we need more gold than we did before the war, although it is important that much of this gold should be put to use in foreign credit operations.

TRUST DOES NOT REMOVE SMALL INVESTOR'S HANDICAP

The well-managed investment trust does offer advantages to the small, inexperienced investor, but it does not remove the inexperienced investor's greatest handicap; and that handicap is his frequent inability to select between reliable investment houses and the unreliable when he makes investments. Might it not be just as difficult for the small, inexperienced investor to select a dependable investment trust as it apparently is for him to do the simple and plainly obvious thing; namely, to deal only with an established, reputable investment house? The investment trust investment, as concerns the investor, is an indirect investment once removed from the primary investment. It is an investment based on an investment. This, while easily under-

standable and often desirable, is adding further complications in the mind of the small investor.

It seems reasonable to conclude that so far the investment trust offers little, if any more, to the small investor than does the investment service of the competent, reputable investment banking house. As for the large investor, he is pretty well able to take care of himself, and it may be remarked that the American investment trusts, organized in the last few years, have perhaps appealed more strongly to a comparatively few large investors than to the numerous small investors. The reason for this appeal has not been for wholly investment uses, but also for the opportunity of a measure of tax relief that may be had through this form of investing.

The World War caused a great expansion in our foreign trade. It early became apparent that greater facilities for extending credits abroad must be provided. Congress adopted various measures to this end, among the foremost of which was the Edge Act, approved December, 1919, and providing for the incorporating of foreign credit banking houses, which, under the supervision of the Federal Reserve Board, might deal in commercial banking, or short-term credits, or in long-term credits abroad. The Reserve Board ruled that such a banking house must limit its activities to commercial banking or to investment banking. It could not do both. Several banks were organized under the Edge Act to do a foreign commercial banking business, but so far as the writer is aware there is none operating under the Edge Act to conduct a foreign investment business. The fact that investment institutions, under the ruling of the Reserve Board, were forbidden to conduct a foreign exchange business or to do other commercial banking acts that might be conducive to their main business interests, and also that there was a feeling of doubt as to possible future rulings seemingly prevented progress in this line. It is also likely that the depression of 1920, coming soon after the enactment of the Edge Act, contributed to this hesitancy. Amer

ican financiers had their hands full caring for the country's immediate credit needs without venturing into the cross-currents of European finance under the statutory sails of an untried law.

AMERICAN INVESTMENT TRUST DEVELOPMENTS

Several organizations of an investment trust nature have been formed for dealing in foreign securities, however, and no doubt others will come. Mr. Kilbourne says that at least six American new investment trusts offered their securities to American investors in 1924. Nevertheless, it is perhaps significant that of quite a few such organizations, both trusts and corporations, formed in America since the war, perhaps the larger number deal chiefly in American securities. Some of these organizations specialize in different classes of securities, such as utilities, railroads, chain stores, and so forth. They obtain diversification by investing in the securities of a number of different companies within these special fields. One recently organized trust has distributed its holdings entirely among the stocks of 25 of the leading industrial, railroad, and public utility corporations.

The development of this trust may be of interest to you as indicating the praiseworthy conservatism that may be applied to trust operation. This trust has its holdings distributed among such industrial stocks as American Locomotive, United States Steel, Standard Oil of New Jersey, American Tobacco, Eastman, Pullman, National Biscuit; such rails as Atchison, Canadian Pacific, Lackawanna, Louisville and Nashville, New York Central, Pennsylvania, Union Pacific, Southern Pacific; such utilities as American Telephone and Telegraph, Electric Bond and Share, Pacific Gas and Electric. This does not include the entire list, but it is representative.

This trust deposits its securities as collateral and issues trust certificates against them. The holder of a given unit of trust shares may order a given block of the investment

holdings sold, if he wishes to liquidate in that manner rather than to sell his trust shares direct. This means that the trust's holdings are in blocks that include the entire list and which blocks may be sold or kept in the trust according to the wishes of the trust share, or certificate holders. The trust cannot make substitution of securities, except that, if it finds it desirable to sell one of the stocks, the money received therefrom must be invested *pro rata* in the same kind of stocks as remain in the trust. The certificates bear $6\frac{1}{2}\%$ interest, and the trust runs for 20 years and may be renewed.

AMERICAN TRUST DIFFERS IN FUNCTION

The foregoing trust allows little latitude in management. Its investments having been made with a wide diversification and conservatism, it is rather stationary, with little chance for the trustees to make or lose money by changing the holdings. Some of the American trusts, however, more nearly follow the British plan and permit their trustees almost complete freedom within certain general restrictions, to prevent too large a percentage of investments in any one country or in any one enterprise or class of securities. The experience of certain British trusts which had a diversification solely in Russian securities indicates the necessity for geographical diversification. Before the war large portions of British trust investments in foreign securities were in the United States and the Argentine.

The application of the trust principle to investing is by no means a novelty in the United States, although it would seem to be, from the increased attention paid to British investment trusts since the war. In one way or another this function has been in common use for a long time. Investment trusts existed in Europe before they were developed in England, although the Continent never used them to the extent Great Britain did. In the United States the holding company is somewhat similar to the investment

trust, an essential difference being that the holding company exists to exercise control through the ownership of securities, while the investment trust cares nothing about control but buys securities for investment purposes. The younger student of finance, however, must not confuse the British trusts, or trust companies, with American trust companies. The British trust is an investment function, while the American trust company performs a great variety of services and is ceaselessly, and very aptly, too, referred to as "the department store of finance."

The future development of the investment trust in America offers a great opportunity, especially for service to the great mass of the people who are not availing themselves of the present investment services. The trust can, in the right hands, be made to have a great future of widespread benefit to the country. Where the writer may have seemed to be lukewarm in the uses of the investment trust, it is because the application of the investment trust function is a new thing in this country. It must be developed slowly and soundly, if it is developed, and not be rushed simply because it has been a success in some other country.

SELF-TEST QUESTIONS

1. What is an investment trust? Its purpose, form of organization, and operating methods? Differentiate as between holding companies; finance corporations.
2. Describe the beginning of British investment trusts.
3. State the usual form of capitalization of a British investment trust.
4. What is the purpose of having three classes of securities in such a trust?
5. Discuss the three chief characteristics conducive to the successful operation of British investment trusts.
6. What is meant by "visible" reserves; "invisible" reserves? What was the source of each?
7. Compare the United States to Scotland and England as to adaptability for and need of investment trusts.
8. Give reasons for and against investment trust forms of investments in the United States.

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