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**MATERIALS FOR THE STUDY  
OF BUSINESS**

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THE FINANCIAL ORGANIZATION  
OF SOCIETY

**THE UNIVERSITY OF CHICAGO PRESS**  
**CHICAGO, ILLINOIS**

—  
**THE BAKER & TAYLOR COMPANY**  
**NEW YORK**

**THE CAMBRIDGE UNIVERSITY PRESS**  
**LONDON**

**THE MARUZEN-KABUSHIKI-KAISHA**  
**TOKYO, OSAKA, KYOTO, FUKUOKA, SENDAI**

**THE COMMERCIAL PRESS, LIMITED**  
**SHANGHAI**

9272

THE FINANCIAL  
ORGANIZATION OF SOCIETY

BY

HAROLD G. MOULTON

PRESIDENT OF THE BROOKINGS INSTITUTION  
WASHINGTON, D.C.

THIRD EDITION



THE UNIVERSITY OF CHICAGO PRESS  
CHICAGO, ILLINOIS

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*Second Edition October 1925*  
*Third Edition April 1930*  
*Second Impression March 1931*

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**COMPOSED AND PRINTED BY THE UNIVERSITY OF CHICAGO PRESS**  
**CHICAGO, ILLINOIS, U.S.A.**

## EDITOR'S PREFACE

Collegiate training for business administration is now so widely attempted that the time has arrived when experiments should be conducted looking toward the organization of the business curriculum into a coherent whole. Training in scattered "business subjects" was defensible enough in the earlier days of collegiate business training, but such a method cannot be permanent. It must yield to a more comprehensive organization.

There can be no doubt that many experiments will be conducted looking toward this goal; they are, indeed, already under way. This series, "Materials for the Study of Business," marks one stage in such an experiment in the School of Commerce and Administration of the University of Chicago.

It is appropriate that the hypotheses on which this experiment is being conducted be set forth. In general terms the reasoning back of the experiment runs as follows: The business executive administers his business under conditions imposed by his environment, both physical and social. The student should accordingly have an understanding of the physical environment. This justifies attention to the earth sciences. He should also have an understanding of the social environment and must accordingly give attention to civics, law, economics, social psychology, and other branches of the social sciences. His knowledge of environment should not be too abstract in character. It should be given practical content, and should be closely related to his knowledge of the internal problems of management. This may be accomplished through a range of courses dealing with business administration wherein the student may become acquainted with such matters as the measuring aids of control, the communicating aids of control, organization policies and methods; the manager's relation to production, to labor, to finance, to technology, to risk-bearing, to the market, to social control, etc. Business is, after all,

## BASIC ELEMENTS OF THE BUSINESS CURRICULUM

## CONTROL

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. Communicating aids of control, for example           <ol style="list-style-type: none"> <li>a) English</li> <li>b) Foreign language</li> </ol> </li> <li>2. Measuring aids of control, for example           <ol style="list-style-type: none"> <li>a) Mathematics</li> <li>b) Statistics and accounting</li> </ol> </li> <li>3. Standards and practices of control           <ol style="list-style-type: none"> <li>a) Psychology</li> <li>b) Organization policies and methods</li> </ol> </li> </ol> | <p>Of problems of adjustment to physical environment</p> <ol style="list-style-type: none"> <li>a) The earth sciences</li> <li>b) The manager's relationship to these</li> </ol> <p>Of problems of technology</p> <ol style="list-style-type: none"> <li>a) Physics through mechanics, basic, and other sciences as appropriate</li> <li>b) The manager's administration of production</li> </ol> <p>Of problems of finance</p> <ol style="list-style-type: none"> <li>a) The financial organization of society</li> <li>b) The manager's administration of finance</li> </ol> <p>Of problems connected with the market</p> <ol style="list-style-type: none"> <li>a) Market functions and market structure</li> <li>b) The manager's administration of marketing (including purchasing and traffic)</li> </ol> <p>Of problems of risk and risk-bearing</p> <ol style="list-style-type: none"> <li>a) The risk aspects of modern industrial society</li> <li>b) The manager's administration of risk-bearing</li> </ol> <p>Of problems of personnel</p> <ol style="list-style-type: none"> <li>a) The position of the worker in modern industrial society</li> <li>b) The manager's administration of personnel</li> </ol> <p>Of problems of adjustment to social environment</p> <ol style="list-style-type: none"> <li>a) The historical background</li> <li>b) The socio-economic institutional life</li> <li>c) Business law and government</li> </ol> |
|---|--|



a pecuniarily organized scheme of gratifying human wants, and, properly understood, falls little short of being as broad, as inclusive, as life itself in its motives, aspirations, and social obligations. It falls little short of being as broad as all science in its technique. Training for the task of the business administrator must have breadth and depth comparable with those of the task.

Stating the matter in another way, the modern business administrator is essentially a solver of business problems—problems of business policy, of organization, and of operation. These problems, great in number and broad in scope, divide themselves into certain type groups, and in each type group there are certain classes of obstacles to be overcome, as well as certain aids, or materials of solution.

If these problems are arranged (1) to show the significance of the organizing and administrative, or control, activities of the modern responsible manager, and (2) to indicate appropriate fields of training, the diagram on the opposite page (which disregards much overlapping and interacting) results. It sets forth the present hypothesis of the School of Commerce and Administration concerning the basic elements of the business curriculum covering both secondary school and collegiate work.

The present volume in the series is designed to give the student an understanding of the financial institutions which the manager utilizes and which largely condition his financial policies. It presents one phase of his social environment.

L. C. MARSHALL

## PREFACE TO THIRD EDITION

Important as were the changes in the second edition of this volume, this third edition is a much more complete revision of the text as a whole. Not only have the factual and statistical data been brought up to date, but many significant changes have been made throughout the volume, and discussions of numerous recent developments have been incorporated.

Among the important features of the new edition, the following require special mention: The theory of foreign exchange has been thoroughly restated in order to take account of the significance of credit operations and other factors which influence the international movement of specie. A special chapter is devoted to the Investment Trust, which has shown so remarkable a development in the United States in recent years. The chapter on "Commercial Paper Houses and Discount Companies" has been reorganized in order to take account of the significant changes that have occurred during the last five years, particularly in connection with the discount companies. The chapter entitled "Ten Years of the Federal Reserve System" is now called "The Federal Reserve System in Operation," and includes a critical discussion of Federal Reserve policies, particularly in relation to the control of credit through open-market operations. The chapter on "Raising Capital for Agriculture" incorporates discussion of recent significant developments in connection with the Federal Intermediate Credit and Federal Farm Loan systems. "Consumptive Credit Institutions" has been entirely rewritten in order to take account of the important developments that have been occurring in this hitherto neglected field. The chapter on "Financial Integration" is now entitled "Integration and Consolidation," and includes a discussion of chain or group banking and the movement for the development of branch banking. The last chapter has also been reorganized, and now includes

a statement concerning the relationship of commercial banking to capital formation and a discussion of the recently organized International Bank.

The charts for the revised edition have been prepared by Ralph P. Ward, of the Brookings Institution.

HAROLD G. MOULTON

WASHINGTON, D.C.

March 1, 1930

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## INTRODUCTION TO TEACHERS

This volume differs from the usual textbook in the field of finance both in scope and in point of view. In the thought that it may prove useful to teachers to know something of the evolution of a course and textbook entitled *The Financial Organization of Society*, I present at this place an account of the development of my own thinking on the subject.

I should perhaps state at the beginning that my present formulation of such a course is the result of many years of experimentation. I can perhaps best make clear the reason for my present views by relating my personal experience in teaching the subject. I was trained in the classical school of economics; and accordingly, when early in my teaching career I was asked to give a course in "Money and Banking," I eagerly seized the opportunity presented to instruct my students in the accepted principles of the science. In brief, on the money side I gave them the functions of money, the history of bimetallism, and the regulation of the various forms of metallic and paper currency; and on the banking side I discussed the functions of commercial banks in creating bank notes and deposit currency and the problems of regulation in the United States, and made comparisons with European central bank systems. Finally, I gave them the "true theory" of the relation of money and bank currency to prices.

But I found the subject a somewhat difficult one to teach—on the whole, rather dull and uninteresting to the students. Whether this was attributable to the fact that in the elementary course in economics they had already been set straight on the functions of money, bimetallism, bank credit, and the quantity theory, or whether the exposition of the inherently practical and fascinating field of finance had fallen into an academic and unrealistic form, I have never quite made up my mind. In any event my students were never sufficiently interested in this course

to cause me any regrets when in due time I was led to abandon the course in money and banking and to undertake a new orientation of the entire field of finance.

My first experiment was an attempt to make a general course in money and banking serve as a satisfactory prerequisite to advanced studies in the field. In brief, my experience convinced me that many of the specialized advanced courses in the field of finance could not well be built upon the traditional introductory course in money and banking—because of its extremely limited scope. Moreover, the traditional course seemed, to my students at least, highly academic and without much practical relation to real business and financial affairs, save here and there in particular sections, such as those dealing with the practical operations of a commercial bank and the nature and purpose of the Federal Reserve System. So considerably has the scope of the general-survey course been subsequently changed that I feel it necessary to lay especial emphasis upon what I now conceive to be the limitations of the traditional treatment of money and banking.

### I. SHORTCOMINGS OF THE TRADITIONAL TREATMENT OF MONEY AND BANKING

The place of money and banking in the orthodox treatment of political economy may be briefly set forth somewhat as follows: Economics is divided into the four broad divisions of consumption, production, exchange, and distribution. Human wants constitute the point of departure, the desire for consumptive goods being the mainspring of human activity and productive effort. Then are discussed the fundamental factors of production—labor, land, capital, and management. After the goods are produced and on the market, the problem of evaluation for the purposes of exchange arises, and this leads to a discussion of the laws of value. In connection with exchange, one is reminded that money serves as a standard in which exchange values are expressed and as a medium by which the ownership of goods on the market is transferred. And while considering money as a medium, one must also note that there are various kinds of money, among

them being bank money, both notes and deposit currency. Following the discussion of exchange and currency, it is in order to consider the division of the social dividend among the various agents of production—land, labor, capital, and management, respectively. In elucidating the principles of economics in accordance with this division of the subject matter, most writers leave the impression that money is largely, if not wholly, divorced from the productive process.

Some writers, it is true, relate money to the productive process by including in the classification of utilities, *possession* utilities. As goods are not fully produced when they leave the factories or the farms, they must be transported, hence *place* utility; they must often be stored, hence *time* utility; and, finally, their ownership must be transferred in the market place, hence *possession* utility. Money as a medium of exchange—for the transfer of ownership—thus serves in the final stage of the complex productive process. But the text which indicates that in this way money plays a direct part in production still leaves the discussion of money in relation to economic organization inadequate. The analysis would indicate that money is of service only in the last stage of the productive process, in connection with the exchange of finished goods between producer and consumer. What is not deducible from such analysis is that money is also the means of organizing production, of bringing together the various agencies of production (land, labor, capital, and managers), and of fusing them into a business organization that can turn out a product capable of ministering to human wants.

Society is now organized on a pecuniary basis, and money is the indispensable prerequisite to the assembling of the concrete instruments of production. The business man uses money, or its equivalent, to purchase materials for the construction of his factory; he uses his money in buying the supplies and materials necessary for its equipment; he bids competitively in the markets of the world for the raw material used in the process of manufacturing; and he employs money as a means of attracting to his organization the requisite labor force and corps of administrative offi-

cial. In short, every act of the productive process itself revolves about the use of money. There is, of course, nothing particularly new in this statement of the case. What is interesting is that the writers of general treatises on economics have usually regarded it as unnecessary to make any mention of the part that money plays in the organization of productive activities, thereby giving the whole subject a very imperfect as well as unrealistic presentation.

The special treatises on money and banking which follow the traditional conception laid down in the general texts—that money is used in *exchanging* goods produced through the united effort of land, labor, capital, and management—in similar fashion make no reference to the part that money plays in the organization of productive activities. In connection with the function of money as a common denominator of value, the current statement is that the existence of a common denominator or standard of value saves the individual the necessity of burdening his weary mind with innumerable exchange ratios. This method of stating the significance of the common denominator of value results from the traditional practice of discussing money only under the heading of “exchange.”

But when attention is shifted from the significance of money in exchanging consumptive goods that have already been produced to the part that a common denominator of value, or pecuniary unit of calculation, plays in the organization of productive activity, it becomes readily apparent that money in this capacity also plays an extremely important rôle in the field of production. The truth is that without a common denominator of value—or pecuniary unit—it would be impossible to keep financial account or to give commensurability to unlike units of consumptive goods, capital goods, labor power, what not. Without the pecuniary unit all other units of measurement would be valueless for the purposes of business. As a qualitative unit of measurement, the dollar serves as a guide to the business man in the development of new methods and new techniques—in a word, in the making of the innumerable decisions which are referred to him

from day to day. The price-and-profit system based on the pecuniary unit serves as a guide in the directing of labor and capital from place to place and from industry to industry. Accounting systems based on the dollar unit also make possible governmental supervision and control of industrial affairs (see chap. i). All this finds no place, however, in the traditional discussion of the rôle of money in economic activity, despite the pretension that the analysis is disclosing the way in which society has organized itself for the production of wealth.

In connection with the standard of deferred payments, somewhat more attention has been given to the relation of money to business activities in the field of production. For it is not infrequently pointed out that a poor standard of deferred payments is a great deterrent to business enterprise, owing to the increased business risks that result therefrom. But even in this case the relation of the standard of deferred payments to the conduct of business is usually treated as an incidental matter; the emphasis is placed rather upon the relation of the standard of deferred payments to prices. And in discussions of the price level the emphasis is placed upon the equities between debtors and creditors in connection with long-time borrowing operations and upon the effects of changing prices upon the various classes of the community. The question of just distribution is apparently the primary consideration, while the importance of a stable standard for the purposes of production is scarcely noted.

The problems of securing a stable standard of deferred payments and of maintaining the various forms of token and representative currency at a parity with this standard, have been among the most fascinating inquiries in the whole realm of political economy and by many have come to be regarded as the only really significant financial issues that need concern the economist. As a professional friend of mine once said: "The economist's problem is the price problem. Why should he therefore concern himself about other financial issues?" The obvious answer is that it is only one of the many problems of vital interest to the economist who would understand the significance of money in indus-



trial society. The perennial controversies that have raged about the relation of money to prices have, however, tended to shift the emphasis away from other important monetary considerations and to obscure the rôle that money plays in connection with the organization of economic activity.

So much for the shortcomings of the traditional discussions of money. My efforts to organize a general-survey course in money and banking revealed an even greater difficulty or weakness on the banking side. For, as already indicated, the emphasis upon money and its relation to prices has led to confining the discussion of banking to commercial banking only—this for the reason that commercial banking alone provides, in bank notes and deposit currency, media that are acceptable in exchanging goods. In consequence, the whole discussion of banking, with the exception of a brief section devoted to financial panics, has usually centered around the maintenance of the parity of bank currency with gold, the function of bank currency in exchanging goods, and the relation of bank credit to prices. I trust I shall not be understood as objecting to such discussion; my point is merely that this narrowing of the scope of banking has rendered the traditional treatment of finance quite inadequate for the purposes of the business curriculum or, for that matter, for the purposes of the general economics curriculum. For example, one repeatedly finds the doctrine that the commercial bank should (properly) function only in connection with commerce—with the marketing process, whereby the economic gap between producer and consumer is bridged. This is not only inadequate theory; it embodies a fundamentally erroneous conception of the nature of the modern business and financial organization.

## II. SHORTCOMINGS OF A COURSE IN “FINANCIAL INSTITUTIONS”

The numerous financial agencies and institutions other than the commercial bank which are found in modern economic society did not naturally fall within the scope of this traditional theory of the rôle of money and banking in the economic system. Ac-

cordingly, we usually find only incidental reference to them, in either the general texts on economics or in the special works in the field of money and banking.<sup>1</sup> It was not surprising, therefore, that one should find, as I did, that the traditional study of commercial banking did not serve as an adequate basis for a survey course in the financial field. Somehow or other, the large number of other financial institutions and agencies which had grown up in modern times and which are made use of by the business man of today must be brought into the picture. I therefore conceived the idea of a general-survey course which was designated "Financial Institutions."

In brief, the idea of the course on "Financial Institutions" was to disclose to the student the nature and the functions of all the financial agencies and institutions that exist in the modern world. Money, in its various functions, was considered—as was also the work of commercial banks, savings banks, investment banks, insurance companies (in their banking aspects), the stock exchanges, etc. But the difficulty here was that one was tempted either to include within a single course everything that had been discussed in the whole series of specialized courses in the various divisions of finance—a task to be despaired of—or else to make the course a very elementary one, designed merely to give the student a bird's-eye view of financial problems and of the financial system in general. There was, indeed, grave danger that it would be of so elementary and fragmentary a nature as to be sadly wanting in genuine intellectual content.

Experience showed that what was really needed was not a series of discussions of the several financial institutions in turn, but an analysis which would reveal the broad outlines and the significance of the financial system conceived as a unit and as an integral part of the general economic organization. The individual financial institutions all needed to be related in some fashion as parts of a general financial structure. The tie that binds must

<sup>1</sup>In recent years, however, there has been a tendency for writers of special treatises to devote some attention to savings and investment institutions.

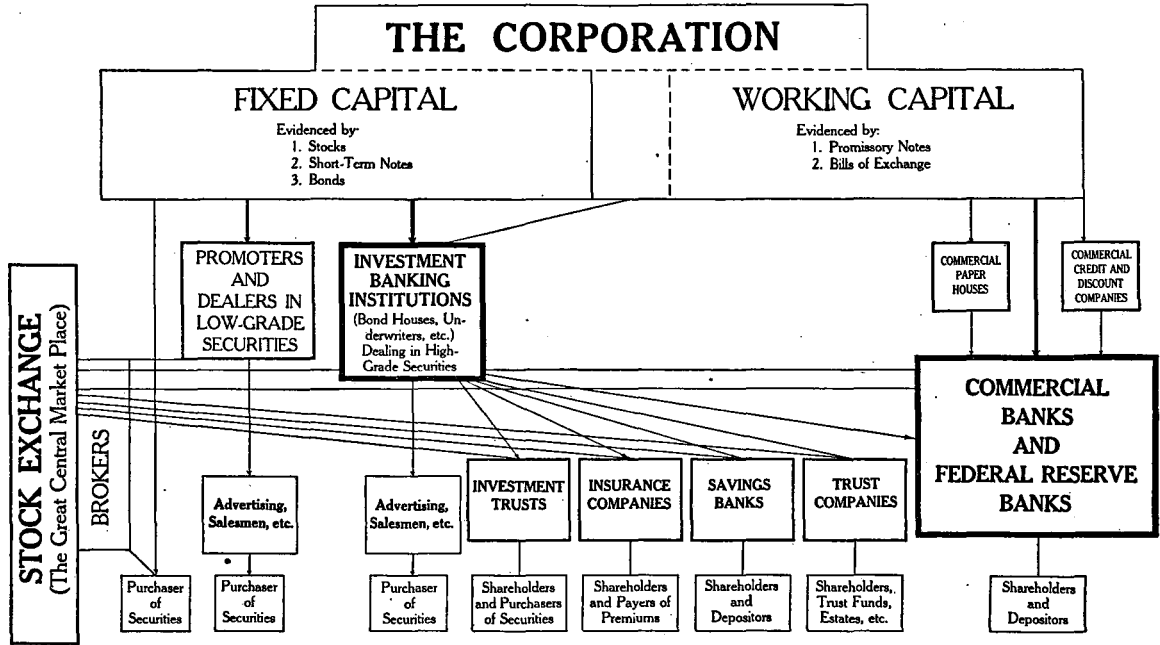
somewhere be found if a general-survey course in finance were to be worthy of the name. This development explains the subsequent change of emphasis from financial institutions to financial organization.

### III. THE DIFFERENCE BETWEEN FINANCIAL ORGANIZATION AND FINANCIAL INSTITUTIONS

In a treatise on financial organization the various financial agencies and institutions are still described; but their relations one to another as parts of a general financial structure, and the general setting of this financial system within the larger economic organization, are also disclosed. A diagrammatic presentation of that portion of the financial structure which is related to corporate enterprise is shown on the accompanying page. While the chart is more fully discussed in the text, a brief statement is made here also in order to indicate clearly my point of view.

The purpose of this diagram is to indicate that in a capitalistic, pecuniary society all of the financial institutions and agencies which exist have been developed for the purpose of facilitating the raising of the capital (funds) required by modern business enterprises. For purposes of exposition this capital is divided into fixed and working capital. The fixed capital is raised through the sale of stocks, short-term notes, and bonds—the funds being derived from the ultimate purchasers of these securities, that is, from the rank and file of individuals and investing institutions. Sometimes the purchaser of securities is reached directly, without the help of any financial intermediary; sometimes he is reached through promoters and dealers in low-grade securities; and sometimes through investment banking institutions dealing in high-grade issues. These institutions in turn utilize salesmen, newspaper advertising, circulars, etc. And in so far as securities are purchased by insurance companies, investment trusts, savings banks, trust companies, and commercial banks, these institutions serve as secondary intermediaries between the furnisher of the funds and the borrowing corporation.

The stock exchange appears at one side as a great, central



market place, alike for securities that have once passed through the hands of financial middlemen to purchasers, and for securities that have not been finally absorbed by the investing public but are still being carried in the speculative market. The transverse lines connecting the stock exchange with the purchaser of securities and with other financial institutions are designed to suggest that interrelations exist between these institutions. It will be noted, also, that the diagram indicates that some of the funds derived from the sale of stock, short-term notes, and bonds are used for working-capital purposes. (Note the dotted line through the working-capital side of the chart.)

On the working-capital side, the chart indicates that corporations borrow funds for operating expenses from commercial banks—much of it directly, but some of it indirectly through the intermediation of commercial paper houses and commercial credit or discount companies. The transverse lines connecting the commercial banks and the Federal Reserve institutions with investment banking institutions and the stock exchange are designed to indicate interrelations in the financial system, some of which will presently be discussed.

For the moment, what needs emphasizing is that these financial institutions are all engaged in a common task of transferring the funds of the ultimate savers of society listed at the bottom of the diagram to the borrowing corporation which is placed at the top! Together these institutions constitute a financial structure; they make up the component parts of the modern financial system about which all economic activities center—on the basis of which industrial society is organized.

The advantage in organizing a survey course in finance around this central problem of raising fixed and working capital for business uses is that one may thus see at a glance that the individual business is connected with each and every part of the financial system. The modern business enterprise has its setting in the midst of a financial system upon which it is at all times and in many ways dependent; and a sound financial policy can be formulated only in the light of knowledge of the services rendered by

each of the financial agencies and institutions and of the working of the financial system in general.

In such a survey course I have found it possible to show the functional origin of the various separate financial institutions, and their interrelations one with another as parts of a financial system, without exhausting the subject matter in any particular division of the field. For example, while the course touches upon the problems of corporate finance, in so far as it discusses the forms of credit instruments and the financial institutions that may be utilized by a business man in raising capital, it makes no attempt to discuss in detail the best method of financing for particular corporations under specified conditions. It does, on the other hand, make possible the giving of an advanced course in corporation or business finance where the instructor may take it for granted that every student in the class knows the general distinction between fixed and working capital, between bonds and the various types of stock, and, more important, knows something of the services that are rendered by the numerous types of financial institutions upon which the financing of business is dependent.

Similarly, a course on the stock exchange or on brokerage may proceed from the assumption that the students already have some knowledge of the organization of the stock exchange and the place that it occupies in the general financial system. And so, also, in each of the advanced courses in finance it will be found that the students have a common background of information and a general view of the relation of the particular part of the financial system which they are to study in detail to the financial system in general.

From the point of view of advanced courses in economics, as distinguished from those in business administration, the same consideration holds. If all the students have had a general-survey course in finance such as is here suggested, it is no longer necessary to spend several weeks in each advanced course on elementary topics in order that the discussion may not be found unintelligible by a considerable portion of the class.

Quite as important is the elimination of duplication that is made possible in advanced courses. Who of us has not, either as student or teacher, in the field of finance as well as in other divisions of the economic and business curriculum, been appalled by the amount of duplication that occurs? All will of course agree that some duplication is both inevitable and desirable. But the recognition of this fact by no means warrants more than a mere fraction of the duplication of effort that has characterized instruction in economics ever since the multiplication of courses began.

For example, as a student I took a course in money, which of course included a discussion of the controversial issues on the relation of money and prices. Such a discussion inevitably raised the question of bank credit and thus required on the part of the instructor a more or less detailed discussion of banking operations and the phenomenon of credit currency. Then later I took a course in banking, where special emphasis was placed upon the problem of banking reform. So far as I was concerned, there was no need in this course of discussing again the details of banking operations and the phenomena of bank credit. But about 50 per cent of the class had not had the course in money, just as when I took the course in money about 50 per cent of that class had not previously had the course in banking. In consequence, it was necessary for the instructor in both courses to discuss the general principles of banking and credit. Still later I took a course in crises and depressions. In the course on banking I had of course studied in some degree the problems of financial crises and panics; but since a considerable percentage of the class had not had the course in banking, their minds were a complete blank as far as the phenomena of the business cycle were concerned. Thus here, as in each of the other cases, the level of instruction had to sink to the level not of the minimum intelligence but of the minimum previous training of the members of the class. I think it is no exaggeration to say that one-third of the time of the class was wasted in needless duplication which could have been avoided by a general-survey course embodying material common to each of the courses appropriately lying in the field of more advanced

study. A general-survey course makes it possible for the advanced courses to be really advanced.

#### IV. THE RELATION OF FINANCIAL ORGANIZATION TO ECONOMIC ORGANIZATION

In the foregoing discussion reference has been repeatedly made to the relation of the financial system to the general economic organization, and the statement has been made that modern industrial society is financially organized and controlled. How, specifically, is the modern financial structure linked up with the general economic organization, and how, concretely, does it control the economic system? One answer to this problem has already been suggested in connection with the rôle that the pecuniary unit and the price system play in the organization of economic activities. Another is to be found in the interrelations of finance with the problems of the business cycle.

Until recently courses on money and banking have characteristically attached relatively little importance to the business cycle. True, there has usually been a chapter devoted to a discussion of the events of a financial panic and the devices that are necessary to prevent the periodic breakdown of the financial machinery. But there has seldom been any attempt to link up the whole problem of banking and finance with the phenomena of the business cycle, conceived as the normal condition of industry. Financial theory, like general economic theory, has usually been based upon the assumption that there is commonly full employment of labor and capital and that the industrial machine runs with relatively little friction—save when some panic or financial cataclysm, like an earthquake, breaks out and rudely shakes the foundations of the whole financial structure. We shall not get very far toward an understanding either of the financial or the economic system until we recognize, with Mitchell, that “in the real world of business, affairs are always undergoing a cumulative change, always passing through some phase of a business



cycle into some other phase. . . . In fact, if not in theory, a state of change in business conditions is the only normal state."

The truth is that the entire economic system is inextricably tied up with the general financial and credit system. Borrowing corporations not infrequently find that the supply of credit for both fixed and working-capital purposes is inadequate for their requirements—because of an insufficient volume of money savings, an outflow of reserve funds from the country, an increase in the volume of business beyond the credit capacity of the banks, or a rising price level which requires a steadily expanding volume of liquid capital with which to effect a given volume of production. And because of the phenomena of the business cycle there are times when the entire business and credit structure is completely disrupted, resulting in unemployment for millions of persons and financial failure for thousands of business concerns whose only fault lies in being unfortunately placed in the economic system.

Business corporations and individual workers are dependent upon the smooth functioning of the credit system not merely for the regularity of profits and wages; as investors in corporate securities they are also dependent upon it for the safety of their savings and the continuity of interest payments. Literally almost every individual and every institution is, under modern conditions, vitally interested, as an investor, in the efficient working of the financial system. Corporations and other business concerns are obliged to invest reserve and sinking funds in the securities of other corporations; banks, insurance companies, clubs, educational and charitable institutions, labor-union organizations, and trust estates—all are of necessity holders of corporate securities; and, under a pecuniary order, the individual laborer or salaried man can effect the savings required for sickness and age only through the investment of pecuniary income, directly or indirectly, in the bonds and shares of corporate enterprises. To a greater or less degree all classes of society are thus dependent upon the efficient functioning of the pecuniary mechanism. And the entire financial and economic system is bound up with the phenomena of the business cycle, which is itself a result of the

evolution of the modern pecuniary credit system. An adequate discussion of either the modern financial system or the modern economic system must therefore be based upon and constructed around a discussion of the business cycle.

## V. SOME PEDAGOGICAL ISSUES

Some teachers may at first thought feel that this volume should have included a thorough discussion of so important and vital a subject as the relation of money and credit to prices. A word of explanation is therefore in point. In chapter ii there is presented a very brief statement of the relation of money and prices. The emphasis is not, however, placed upon the causes of price changes; it is merely pointed out that the values of goods are expressed in terms of money and that these money prices fluctuate widely and more or less continuously. Now the reason for not discussing the causes of price changes at that point in the analysis is merely that the price question cannot be intelligently discussed until an analysis of the commercial banking system has been made; and by the time the analysis of the commercial banking system, including its relation to other financial institutions and to the general business organization as conditioned by the phenomena of the business cycle, was completed, limitations of space did not well permit an adequate discussion of this most vital aspect of the modern financial system. The controversial issues with reference to the relation of money to prices are therefore necessarily left for consideration in advanced courses. It is believed that enough data bearing on the price question are presented in the treatise for the purposes in hand. If, in the view of any teacher, such is not the case, the text material may be readily supplemented by lectures and by collateral reading.

Another and more general pedagogical issue may be raised in connection with this general-survey course. Is it possible in a survey course in finance to give more than a smattering of factual material with reference to each part of the financial system and other than a confused picture of the system as a whole? And would it not be better to give, first, a series of special courses in

each division of finance, rounding out the curriculum at the end with a course broadly conceived and designed to tie together the various financial courses previously studied, and to afford the student a clear understanding of the nature of the modern financial system and its relation to the general economic organization?

With reference to the first question, it will be noted that it is the question that has so often been raised in connection with the general-introductory course in economics. Can one thus give anything besides a modicum of unrelated factual material? Does the student come out of the introductory course in economics with any real appreciation of the nature of the modern industrial system? Would it not be better for him to take, first, a series of special courses in each of the various fields of economic inquiry? It is quite unnecessary for me to discuss these time-honored issues. The fact that practically all American institutions still hold to the practice of giving a general-introductory course—of one sort or another—is sufficient to indicate where the consensus of opinion still lies.

Now, if it is possible in the introductory course in economics to give the student a general survey of the economic system, it should be considerably easier to give him a significant view of the financial part of the economic system before he has taken detailed courses in the various divisions of the field. My experience in giving a general-survey course in finance has been that there are no serious difficulties involved.

With reference to the second question, whether a general course in finance should not be given at the end of the student's training in that field, it seems to me that there is sound argument for such a procedure—not, however, in lieu of a survey course at the beginning, but as supplementary to such a course; just as I feel that there is sound argument for a correlating course in economic theory and another in business organization at the conclusion of one's general training in either economics or business.

## VI. SOME BY-PRODUCTS FOR THEORY

In conclusion, it may be of interest to know in what ways the development of a course and treatise on *The Financial Organiza-*

*tion of Society* has modified my own views about certain theoretical issues. Space does not permit more than a mere outline of certain conclusions.

In the first place, I have come to believe that the traditional distinction between fixed and working capital, while pedagogically valuable as a point of departure, has little fundamental validity. Funds derived from the sale of stocks and bonds are used for working-capital purposes, as well as for the creation of plant and equipment; and funds derived from the sale of promissory notes and bills of exchange are often used for fixed capital purposes. Moreover, it is not merely the funds derived from the sale of stocks and bonds that are used permanently or continuously in business; a large portion of the funds borrowed through the use of promissory notes and bills of exchange is also used perpetually by businesses—since any going concern must have a continuous supply of working or operating capital, much of which, under modern conditions, is borrowed continuously from commercial banking institutions. The only significant distinction therefore is between the constant capital of a business—including both the fixed capital and that used for operating purposes—and the variable supply, that is, the supply which fluctuates with seasons and with cycles of business. Moreover, the traditional theory that commercial banks do (or should) furnish funds only for peak loads appears quite unsound.

In the second place, I have been forced to conclude that the conception of commercial banking which assumes that the function of the commercial bank is only to create media of exchange for use in the marketing of goods is altogether inadequate and misleading. The fact is that commercial banks extend credit for the producing of raw materials and the manufacture of them into finished commodities as well as for the exchanging or marketing of finished goods. But even more significant is the fact that the commercial banking system occupies a dominant position in the entire financial and business structure. Bond houses, insurance companies, savings banks, and trust and mortgage companies, all look to the commercial banking institutions for accommodation in case of need; they are dependent upon the solvency of

the commercial banking system for the safety of their deposited funds; and they are dependent upon the lending power of the commercial banking institutions for the conduct of their business from day to day. An inadequacy of commercial banking funds means a direct lessening of the underwriting activities and other operations of investment bankers; it means an impairment of the ability of the savings institutions and of the insurance companies to meet their financial engagements and obligations; and whenever there is a breakdown of the complicated commercial banking mechanism the entire financial system is thrown completely out of gear.

Not only does the commercial banking system constitute the center of the entire financial structure, but it lies as well at the base of all modern business operations. Every business concern, practically speaking, is dependent directly or indirectly upon the commercial banks both for the safety of deposited funds and for a continuous supply of borrowed capital—both fixed and working capital. Any failure of the commercial banking system to function normally, therefore, has its direct effect upon every phase of financial and business activity. Commercial banking thus does something more than to supply exchange media and to facilitate the marketing of goods without the use of money. It controls and conditions all business activities; it is the foundation of the whole complex financial and economic organization of modern society.

Finally, the conception of commercial banking in its relation to the entire economic system that has just been outlined has led to a very considerable modification of my views in the matter of price theory. When one conceives the price problem as merely one of comparing the total quantity of goods in the market with the quantity of circulating media available for exchanging them, he arrives at certain conclusions. When one considers the relation of commercial banking to productive and financing activities, to the rest of the financial system, and particularly to the phenomena of the business cycle, he is, I believe, certain to find that new light will be shed upon all the controversial issues of monetary theory.

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