THE *Economics* OF *Money* AND *Banking*

LESTER V. CHANDLER

PROFESSOR OF ECONOMICS

AMHERST COLLEGE

HARPER & BROTHERS

PUBLISHERS

NEW YORK AND LONDON

THE ECONOMICS OF MONEY AND BANKING

Copyright, 1948, by Harper & Brothers
Printed in the United States of America

All rights in this book are reserved.
No part of the book may be reproduced in any manner whatsoever without written permission except in the case of brief quotations embodied in critical articles and reviews. For information address Harper & Brothers

H-X

Preface

THIS BOOK IS ADDRESSED PRIMARILY TO COLLEGE UNDERGRADUates who are just beginning their formal study of money and banking. In selecting and presenting materials I have tried to keep the students' needs constantly in mind and have not attempted to write to my professional colleagues. This is not an exhaustive treatise on money and banking. No one book, not even one of 700 pages, can claim to deal exhaustively with the vast amount of theoretical, legal, institutional, and historical material that has been accumulated in this field. I do not believe that the newcomer should be forced to wade through an encyclopedic treatment of this broad and complex subject. I have therefore selected what I believe to be the most important principles and problems and have attempted to deal with them fully enough to clarify their significance.

My selection and treatment of materials reflect my very strong conviction that a student in this field should first understand the basic principles of money and banking and the relationship of the monetary and banking system to the functioning of the economy as a whole. I believe this is true whether the student's interest in the subject is purely cultural or is also vocational. The student whose interest in the subject is nonvocational should first master the principles and the interrelations of the monetary and banking system with the other parts of the economy that he will study in other courses. A detailed study of the complex details should come later. The same is no less true of those who are considering banking or finance as a career. Bankers, if they are to be wise business leaders, must understand not only the technical details of bank operation and management but also the effects of their actions on the functioning of the economy and the effects of

government monetary and financial policies on the various parts of the economy, including the banks. And I believe that a study of the technical problems of bank operation and management should come only after the student is well grounded in the economics of money and banking. It is for these reasons that I have stressed the theoretical aspects of the subject. Much institutional and historical material is included, but I have tried to use it to illuminate the functioning of the system.

I wish to acknowledge gratefully the generous help that I have received while writing this book. Professor Philip E. Taylor of the University of Connecticut read most of the chapters and made many suggestions that led to their improvement. Mr. Andrew L. Kelemen was of great assistance in gathering materials, typing, and otherwise putting the manuscript in shape for the publisher. Without his loyal and efficient help my task would have been much more laborious and time consuming. For any shortcomings and errors that remain I have only myself to blame.

L. V. C.

January, 1948

Contents

	Preface	xiii
1.	The Functions of Money in an Economic System	1
2.	Price Levels and the Value of Money	20
3.	Kinds of Money	40
4.	Monetary Standards: General Principles	59
5.	Monetary Standards in the United States, 1792–1914	79
6.	Monetary Standards, 1914–1933	98
7.	Monetary Standards, 1933–1942	119
8.	Credit and Credit Instruments	143
9.	The Principles of Commercial Banking	166
10.	Some Further Aspects of Commercial Banking	189
11.	Banking in the United States Before 1914	209
12.	The Federal Reserve System: Its Structure and Control, and Its Service Functions	233
13.	The Reserve Banks as Dealers in Debt	258
14.	Federal Reserve and Treasury Instruments of Credit Control	281
15.	Objectives of Federal Reserve Credit Policies	307
16.	Some Commercial Banking Problems in the United States	333
17.	The Mechanism of International Payments	354
18.	Exchange Rates	376
19.	Government Intervention in Exchange Markets	396
20.	The Bretton Woods Institutions	415
21.	Money and Finance	439
22.	The Functions of Financial Institutions	461
23.	Some Other Financial Institutions	488
24.	The Government and the Money Markets	519
25.	An Introduction to Monetary Theory	536

试读结束：需要全本请在线购买： www.ertongbook.com

26. The Transactions Type of Quantity Theory: General Principles 539
27. The Transactions Type of Quantity Theory: Applications 555
28. The Cash-Balance Type of Quantity Theory 582
29. Commodity Theories of Money 593
30. The Income and Expenditure Approach: General Principles 620
31. Fluctuations of the National Money Income 644
32. Private Investment 666
33. Business Cycles 686
34. The Objectives of Monetary Policy 708
INDEX 729

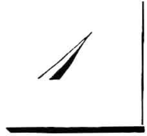
Tables

1. Principal Changes of Wholesale Price Levels in the United States 27
2. An Incomplete List of Things That Have Served as Money 40
3. Classifications of Money 42
4. Metallic Content and Commodity Values of United States Coins 48
5. Kinds of Money in Circulation in the United States, May 31, 1946 53
6. The Monetary Gold Stock and the Circulating Media of the United States, 1925–1932 64
7. Wholesale Prices in the United States and Great Britain, 1860–1879 90
8. Dates of Adopting Gold Standards 94
9. Wholesale Prices During Peak Year of Inflation After World War I 100
10. Decline of Selected Foreign Exchange Rates, 1929–February, 1933 122
11. Dollar Prices of Selected Foreign Money, February and September, 1933, and January, 1934 128
12. World Gold Production 139
13. Monetary Gold Stock of the United States, 1929–1941 141
14. Deposit Expansion on New Reserves by a Banking System 187
15. State Banks, 1834–1861 219
16. Principal Expansions and Contractions of State Bank Notes and Deposits, 1834–1860 220
17. State and National Banks in the United States, 1864–1914 225

18. Relative Sizes of the 12 Federal Reserve Banks, December 26, 1945 239
19. Commercial Banks in the United States That Are Members and Non-members of the Federal Reserve System 241
20. Ratios of Reserve Bank Reserves to Their Deposits and Outstanding Federal Reserve Notes 268
21. Member Bank Reserves and Related Items, November 13, 1946 283
22. Changes in Member Bank Reserves and Related Items, November 14, 1945, to November 13, 1946 285
23. Outstanding Federal Reserve Credit on Selected Dates 287
24. The Monetary Gold Stock of the United States on Selected Dates 290
25. Treasury Currency Outstanding 293
26. Relationship of Monetary Gold Stock, Total Federal Reserve Credit, and Treasury Currency in Selected Periods 295
27. Member Bank Reserve Requirements 302
28. Credits Extended to Foreign Central Banks by Federal Reserve Banks 327
29. Branch Banking in the United States on Selected Dates 340
30. The Size and Geographic Extent of Branch Banking Systems in the United States, December 31, 1939 341
31. Group Banking in the United States, December 31, 1939 342
32. Bank Suspensions in the United States 344
33. Number of Commercial Banks in the United States on Selected Dates 345
34. Bank Suspensions in the United States by Size of Bank, 1921–1936 346
35. Insurance Status of Commercial Banks in the United States, December 31, 1945 349
36. United States Balance of Payments for 1936 362

37. The Size of Exchange Stabilization Funds, December, 1936 398
38. Quotas to be Subscribed by Nations Joining the International Monetary Fund as Provided in the Articles of Agreement 419
39. Executive Directors of the International Monetary Fund, 1946 421
40. Some Initial Par Values Announced by the International Monetary Fund, December 18, 1946 424
41. National Subscriptions to the World Bank as Provided in the Bretton Woods Agreements 432
42. Estimated Consumer Installment Loans Outstanding 481
43. Time and Savings Deposits in the United States, June 29, 1946 489
44. Assets of 190 Massachusetts Mutual Savings Banks, October 31, 1945 490
45. Postal Savings Banks 492
46. Time and Savings Deposits at Commercial Banks 493
47. Assets of Life Insurance Companies in the United States 495
48. Savings and Loan Associations in the United States 498
49. Estimated Total Farm Mortgage Debt, and Amounts Held by Principal Lending Groups 503
50. Outstanding Loans by Federal Agencies for Agricultural Purposes, December 31, 1946 507
51. Membership in the Federal Home Loan Bank System, December 31, 1946 511
52. Loans Insured by the Federal Housing Administration 513
53. Holders of Title II Mortgages Insured by the FHA 513
54. Assets of the RFC and Its Subsidiaries, December 31; 1946 516
55. Outstanding Loans, Other Than Interagency, of Selected Federal Financial Institutions, December 31, 1946 517
56. The Principal Sources of Government Influence on the Saving-Investment Processes 524

57. Determinants of the Money Supply 544
58. Determinants of the Velocity of Money 546
59. Factors Determining the Physical Volume of Trade Effected with Money 551
60. Movements of 367 Wholesale Prices, 1939–August, 1946 577
61. Gross National Product and Its Components, 1929–1946 630
62. National Disposable Income and Its Distributive Shares, 1929–1946 635
63. The Disposal of Disposable Personal Income, 1929–1946 638
64. The Disposal of Business and Personal Disposable Incomes, 1929–1946 640
65. Gross Savings and Gross Investment in the United States, 1929–1946 641
66. The Multiplier When the Marginal Propensity to Consume Is One-Half 659
67. Some Determinants of the Expected Net Returns from New Investment 669
68. Gross Private Domestic Investment, 1929–1946 690



The Functions of Money in an Economic System

WALTER LEAF, THE DISTINGUISHED ENGLISH BANKER, ONCE declared that there are three main causes that dispose men to madness: love, ambition, and the study of currency problems. And he added that the last was the worst. Mr. Leaf's use of the term "study" was probably an error. Love and ambition appear to induce madness not because of their strain on the intellect, but because of their ability to overexcite the emotions. The same seems to be true of money; at any rate the general reaction to monetary problems has usually been more emotional than intellectual. In far too many cases people have filled the atmosphere with ambiguous and emotion-laden terms such as "honest dollars," "baloney money," "the American Way," "sound money," and "the natural laws of finance" to such an extent that the whole subject has been obscured rather than clarified. The widespread failure to understand money (including banking and credit) must be largely attributed to this unscientific approach, for we certainly do not lack experience with money, and the subject is not difficult if approached without prejudice and in an analytical way.

We can facilitate our understanding of the integrated subjects of money, credit, and banking by keeping three facts constantly in mind. The first is that these mechanisms are significant only in their relationship to the rest of the economic

试读结束：需要全本请在线购买： www.ertongbook.c

system. Their purpose is to serve the system, the manner of their functioning inevitably affects the rest of the system, and changes in the rest of the system inevitably affect them. This strongly suggests that there may not be any one set of monetary and financial institutions and policies that is "best" for all periods and places, but that the "best" one is that which is best adapted to all the economic and social conditions of the particular time and area. An unchanging monetary and banking system in the midst of an otherwise dynamic economy is likely to yield unfavorable social results, if indeed it were possible of attainment.

The second fact is that the monetary and financial institutions existing at any given time can usually be explained only in terms of a long series of historical events. It would perhaps be an exaggeration to say that our own monetary and financial system "just growed" like Topsy, but its structure and policies are hardly those that we would adopt if we were to build it anew without reference to the historical events of the past 200 years. In this field, as in many others, old ideas change but slowly, habitual ways of doing things are not altered overnight, and institutions undergo abrupt change only in time of crisis—and sometimes not even then. For example, no one can explain our recent silver policy without reference to the fact that we were on a bimetallic standard in the early nineteenth century, or our banking structure without reference to the rise of state-chartered banks before the Civil War, or our present controversies over the gold standard without reference to the fact that this system was adopted during the latter part of the nineteenth century only after long and bitter political fights. History can contribute much to our understanding of contemporary monetary problems.

The third fact is concerned with terminology. The careful student must beware of terminology in this field. Though we must, for economy's sake, use names for things, these names have an unfortunate tendency to remain fixed while the things to which they apply undergo marked changes. The unwary may thus make the mistake of assuming that a generalization that is valid for things called by a certain name at one time is equally valid for the thing answering to the same name at

another time. For example, the United States was "on the gold standard" in both 1913 and 1948, yet the monetary systems of the two periods were very different and yielded quite different results. Seventeenth-century colonial "banks" were markedly different in their operations from the checking deposit "banks" of 1948. A well-managed paper currency bears hardly a family resemblance to the famous paper issues of the American Revolution. Static names must not be allowed to impede our analysis of a constantly, though sometimes slowly, changing monetary system.

THE BASIC FUNCTION OF MONEY

Money has but one fundamental purpose in an economic system: to facilitate the exchange of goods and services—to lessen the time and effort required to carry on trade. A man living and working in complete isolation from others has no use for money. He cannot eat it, or wear it, or use it to promote his productive processes; having no occasion to exchange either goods or services with others, he has no need for money. Even if a dozen people lived together in isolation from all others the use of money would be of only limited benefit to them; they could barter their goods and services among one another with only little loss of time and effort. As groups become larger, however, and wish to increase the degree of specialization and the size of the trade area, they find the direct barter of goods and services increasingly inconvenient and increasingly wasteful of time and effort. They therefore search for something which will enable them to escape the wasteful processes of barter; they invent money.

We may say, then, that the sole purpose of money in the economic system is to enable trade to be effected as cheaply as possible in order to make feasible the optimum degree of specialization, with its attendant increase of productivity. We are all familiar with the high degree of specialization that characterizes modern economies—specialization of persons, of business firms, of regions, and of types of capital. We know that without this high degree of specialization—which enables

us to utilize the various regions to maximum advantage, to make the most advantageous use of native abilities, to develop skills, to amass huge amounts of specialized and useful knowledge, and to employ large aggregations of specialized capital —our productive power and living standards would be far below their present levels. But this specialization would be impossible without an equally highly developed system of exchange or trade. Money is productive, therefore, in the sense that it is an essential part of the modern exchange mechanism and thereby facilitates specialization and production.

Since money has but one basic function in the economy—to facilitate trade to the utmost—there is but one broad test of a monetary system: How well does it facilitate trade? All questions as to the form of money must take a subordinate position; monetary forms are important, but their importance derives solely from their effects on functioning. That monetary system is best which promotes exchange most.

BARTER EXCHANGE

We have carefully avoided saying that exchange is impossible without money. Trade can be effected, of course, by the direct barter of goods and services among people. Primitive trade was often carried on in this way, and bartering is not unknown even now. Yet pure barter is so wasteful of time and effort that little trade would be feasible if this were the only available method of exchange. Since the shortcomings of pure or direct barter constitute the only reason for the invention and use of money they will be described at some length.

The first serious shortcoming of pure barter, with neither money nor the concept of a monetary unit available, is the lack of any common unit in terms of which to measure and state the values of goods and services. (By the "value" of a good or service is meant its "worth," the quantity of other goods and services that it can command in the market.) In this situation the value of each article in the market could not be stated simply as one quantity, but would have to be stated in as many quantities as there were kinds and qualities

of other goods and services in the market. For example, if there were 500,000 kinds and qualities of goods and services in the market, the value of each would have to be stated in terms of 499,999 others. Moreover, no meaningful accounting system would be possible. A balance sheet would consist of a long physical inventory of the kinds and qualities of the various goods owned and another inventory of those owed; consequently the net worth of the person or firm could be ascertained, if at all, only by a prolonged and tedious study of the numerous barter rates of exchange prevailing in the market. Profit and loss statements would be equally difficult to draw up and interpret. A firm could only list the various kinds and qualities of goods and services acquired during the period as income and those paid out as expenses, so that again the net results could be discovered, if at all, only by a laborious study of barter rates of exchange. It is almost inconceivable that even a small department store, not to mention General Motors Corporation, could keep meaningful accounts in the absence of a monetary unit.

The second serious disadvantage of barter is often called "the lack of a double coincidence of wants." Stated more simply, it would happen only rarely that the owner of a good or service that he wished to barter could easily find anyone who both wanted his commodity more than anything else and possessed the commodity that our trader wanted more than anything else. For example, suppose that he owns a three-year-old draft horse that he wishes to trade for a certain kind of two-wheeled cart. To find someone who already owns or can build exactly the kind of cart that he wants and who is willing to trade it, and who also wants the kind of horse that is being offered, is likely to be a laborious and time-consuming process, if such a person exists at all. The horse owner will probably have to accept something that he wants less than the cart or else carry through a number of intermediate barter transactions; he may have to trade the horse for a cow, the cow for a boat, the boat for some sheep, and the sheep for the desired cart. Barter presents even more serious difficulties when the articles to be exchanged are not of the same value and cannot be divided without loss of value. Imagine, for

example, the plight of the owner if he wanted to trade his horse for a pair of overalls, a hat for his wife, three dishes, an aluminum skillet, 50 cartridges, schoolbooks for his children, and numerous other inexpensive articles.

The third disadvantage of pure barter—the lack of any satisfactory unit in terms of which to write contracts requiring future payments—grows out of the two disadvantages already noted. Such contracts are an essential part of an exchange economy; people must enter into agreements as to wages, salaries, interest, rents, and other prices extending over a period of time. But in a pure barter economy these future payments would have to be stated in terms of specific goods or services. Though this would be possible, it would lead to three grave difficulties: (1) It would often invite controversy as to the quality of the goods or services to be repaid. (2) The two parties would often be unable to agree on the specific commodity to be used for repayment. (3) Both parties would run the risk that the commodity to be repaid would increase or decrease seriously in value over the duration of the contract. For example, wheat might rise markedly in value, to the debtor's regret, or decrease markedly in value, to the creditor's regret.

The fourth disadvantage of pure barter, which also results from its first two shortcomings, is the lack of any method of storing generalized purchasing power. People could store purchasing power for future use only by holding specific commodities or claims against specific commodities. This method of storing purchasing power has often been used and, as we shall see later, is used extensively even today. Yet it has serious disadvantages when it is the only method available. The stored commodity may deteriorate (or appreciate) in value, its storage may be costly, and it may be difficult to dispose of it quickly without loss if its holder wishes to buy something else.

Because of the four disadvantages outlined above, pure barter is a highly inefficient method of trade. It was to overcome these difficulties that virtually every society invented some kind of money early in its development.

THE SPECIFIC FUNCTIONS OF MONEY

Money serves its basic purpose as "the great wheel of circulation, the great instrument of commerce" by performing four specific functions, each of which obviates one of the difficulties of pure barter described above. These functions are to serve as: (1) a unit of value, (2) a medium of exchange, (3) a standard of deferred payments, and (4) a store of value. The first two are usually called the *primary* functions of money. The last two are called *derivative* functions, because they are derived from the primary functions.

Money as a Unit of Value

The first function of money has been given many names, of which the most common are "unit of value," "standard of value," "unit of account," "common measure of value," and "common denominator of value." Through all these names runs one common idea: The monetary unit serves as the unit in terms of which the "value" of all goods and services is measured and expressed. As soon as a group develops a monetary unit—such as a dollar, a peso, a franc, a pound sterling, a pengö, or a boliviano—the "value" of each good or service can be expressed as a "price," by which we mean the number of monetary units for which it will exchange. For example, we say that the "value" of a certain hat is $10, that beef of a certain grade has a "value" of $1 a pound, and so on. Ours is certainly a "pecuniary" society in the sense that values typically are measured and expressed in monetary units. Moralists often complain that even human virtues too often have their "price."

The practice of measuring the values of goods and services in monetary units unquestionably simplifies the problem of measuring the exchange values of things in the market. One has merely to compare their relative prices. For example, if carbon steel is $4 per hundredweight and corn is $1 per bushel, a hundredweight of steel is worth 4 bushels of corn. It also

试读结束：需要全本请在线购买： www.ertongbook.com