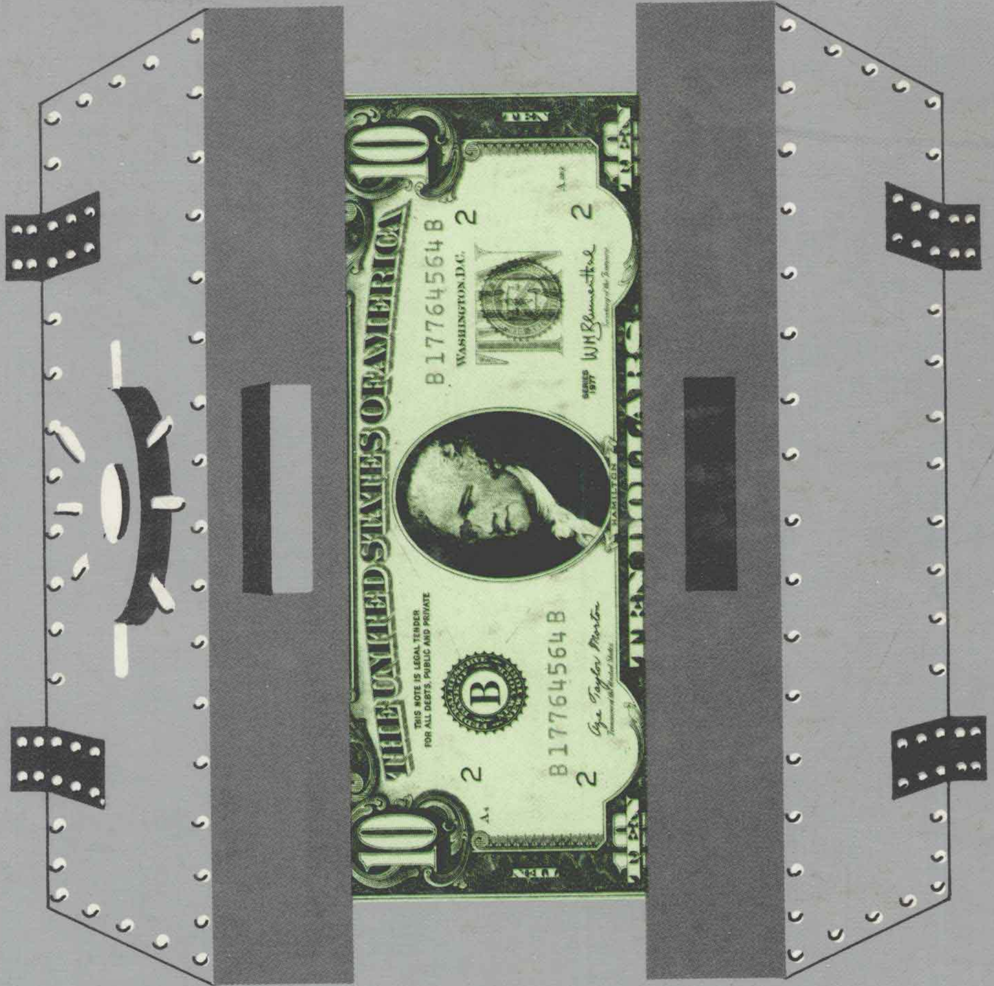

Introduction to Money and Banking

OLIVER G. WOOD, JR.

Introduction to Money and Banking

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D. Van Nostrand Company
New York Cincinnati London Melbourne Toronto

In memory of my grandmother,
Grace d'Alvigny McBrayer

Her intellect, class, pride, and determination were an inspiration to her family and friends.

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Preface

This book is designed as a basic textbook in the undergraduate course in money and banking. The author's aim is to provide students with a concise, up-to-date, and balanced treatment of institutional, theoretical, and policy-related material.

Over the years, the traditional money and banking course developed into a course in macroeconomics. More recently, however, there has been a movement toward emphasizing once again the basic concepts of money and banking. This book was written with this new emphasis in mind.

The concept of money provides the common thread integrating the various subareas of money and banking. Most of the textual discussion is involved with answering five broad questions:

1. What are the nature and functions of money?
2. What are the mechanics of money production?
3. What are the framework for and techniques involved with control of money production?
4. How do changes in the money supply affect income, employment, and prices?
5. What are the goals and alternative strategies of money supply management?

To deal with these questions, the seventeen chapters are organized into five parts:

1. Introduction to Money, Financial Institutions, and Markets (3 chapters)
2. Commercial Banking (3 chapters)
3. Central Banking (3 chapters)
4. Monetary and Income Theory (4 chapters)
5. Monetary Policy (4 chapters)

Part 1, Chapter 1, in addition to the traditional discussion of the nature and functions of money, examines the evolution of our payments system—from barter to EFT—and shows the student how to find the real value of money with examples from both the lending and borrowing side of the market. Chapter 2 is devoted to the "Basics of Deposit Creation and Destruction." Chapter 3 looks at the broad subject of "Financial Intermediation in the Economy," with emphasis on the growing similarity among financial intermediaries.

Part 2 deals with commercial banking. Too often this subject gets short shrift in the money and banking course. For many students, however, this course offers the only opportunity to study commercial banks—the most important financial institution in the economy and a place where many students will look for employment. The three chapters dealing with commercial banking look at the structure and regulation of the banking industry and examine in detail the sources and uses of bank funds.

Part 3, (Central Banking), begins with a chapter on the structure and operation of the Federal Reserve System. The next chapter is devoted to the "Framework for Monetary Control." Here, the aim is to develop the student's understanding of the bank reserve equation and the monetary base-multiplier approach to monetary control. There is no substitute for extensive work with T-accounts to illustrate the factors that supply and absorb bank reserves. The final chapter in this part examines the "Techniques of Monetary Control" and shows how each relates to the monetary base-multiplier framework for monetary control.

Part 4 contains four chapters on monetary and income theory. A major objective of this part is to provide a balanced treatment of traditional and modern theories. The first two chapters are devoted to

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the classical and Keynesian theories, respectively. The Keynesian presentation, along with the IS-LM synthesis is condensed into one chapter. For most students, this chapter will be a review of material learned in basic economics courses.

The third chapter in the theory section deals with modern theories of the demand for money. The student is shown that each "modern" theory is grounded in the classical and/or Keynesian theories of the demand for money. Major topics covered in this chapter include the refinements to the Keynesian liquidity preference theory, the neo-Keynesian portfolio-balances approach, and the modern quantity-theory approach to the demand for money. Each of these topics is developed in an intuitive manner that should promote comprehension.

The last chapter in the theory section is entitled "Channels of Monetary Influence: Relative Price Effects and Wealth Effects." Scenarios are developed to show that, under each of the major theories of the demand for money, changes in the money supply influence the economy through relative price or substitution effects in a portfolio of assets. Moreover, wealth effects such as the Pigou effect and equity effect are explained as reinforcing relative price effects.

Part 5 deals with monetary policy. The first two chapters examine the domestic goals and international aspects of monetary policy. The next chapter presents alternative strategies for monetary policy, including the priorities and conflicts involved with the formulation of monetary policy. Following an examination of the natural rate of unemployment and accelerationist hypotheses, the rational expectations hypothesis is discussed. The last two parts of this chapter look at the monetarist-Keynesian debate and the Federal Reserve's current strategy for monetary policy that reflects both monetarist and Keynesian influences. A final chapter traces the history of monetary policy: 1941–present.

The book is short enough to be completed in one semester. For convenience, a short list of "Suggestions for Additional Reading" is offered at the end of each chapter.

Writing this book was a challenging and enjoyable experience. The author wishes to thank Professors Charles M. Neufeld and William S. Rawson for their helpful comments. The author benefited greatly from his discussion with Professor John M. Harris, Jr. concerning matters of organization and from the comments and suggestions of Professors John A. Halloran, University of Notre Dame; Lee R. McPheters,

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Oliver G. Wood, Jr.

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1

Introduction to Money, Financial Institutions, and Markets

1 Money

Money ranks as one of the greatest inventions of all time. Outside of some monumental discoveries in physics, chemistry, and medicine, perhaps no other invention has had a greater positive impact on overall welfare. But like nuclear fission, money serves people best when it is controlled. This book is about money, how it is produced, how it affects our economic welfare, and the institution we have created to control its production.

In this chapter we will (1) define money, (2) answer the question "Who produces money?" (3) look at various measures of the money supply, (4) outline the evolution of the payments system, (5) describe the functions of money, and (6) show how to find the real value of money.

Definition of Money

If you go to the library and examine other material on money and banking, you will find that there is no universal definition of money. But this should not cause you a great deal of trauma. As a veteran of at least two economics courses and having read the newspaper for many years, you must have surmised by now that "if you laid all economists end to end, you still would not reach a conclusion!" Nevertheless, it

would be helpful to have a good definition of money in mind before we tackle some of the problems ahead. Let's try this one.

Money is anything commonly used and generally accepted as a medium of exchange and as a unit of account. This is a functional definition of money because it embodies the two most important functions of money. The word "anything" is used to avoid restriction. Throughout history many things in local economies have been used as money—cattle, stones, tobacco, wampum, shark's teeth, woodpecker scalps. The term "commonly used" indicates that we do not wish to include items that are occasionally used, such as cigarettes. The term "generally accepted" is used because we wish to include only those items that people are always ready and willing to accept and accumulate in great quantity.

Who Produces Money?

What items meet the criteria imposed in our definition of money? Who produces these items? How does money get into circulation? Believe it or not, the first two questions really are difficult to answer, and have become more difficult in recent years because of the increasing "moneyness" of claims issued by nonbank financial intermediaries such as mutual savings banks, savings and loan associations, and credit unions. Let us begin by considering the three primary producers of money: (1) Federal Reserve banks, (2) the US Treasury, and (3) commercial banks.

Federal Reserve Banks

Each of the twelve Federal Reserve Banks **(FRBs)** issues **Federal Reserve notes** which comprise virtually all of the currency in circulation. At the end of 1978, Federal Reserve notes totaling $113 billion were in circulation in denominations of 1, 2, 5, 10, 20, 50, and 100. Get out a few Federal Reserve notes and see if you can determine which FRBs issued the notes. FRBs issue Federal Reserve notes to commercial banks which, in turn, exchange them for demand deposits of customers who wish to "cash checks."

US Treasury

The US Treasury is the sole issuer of coins and also, by law, maintains $320 million in US notes ($5 denominations only). In

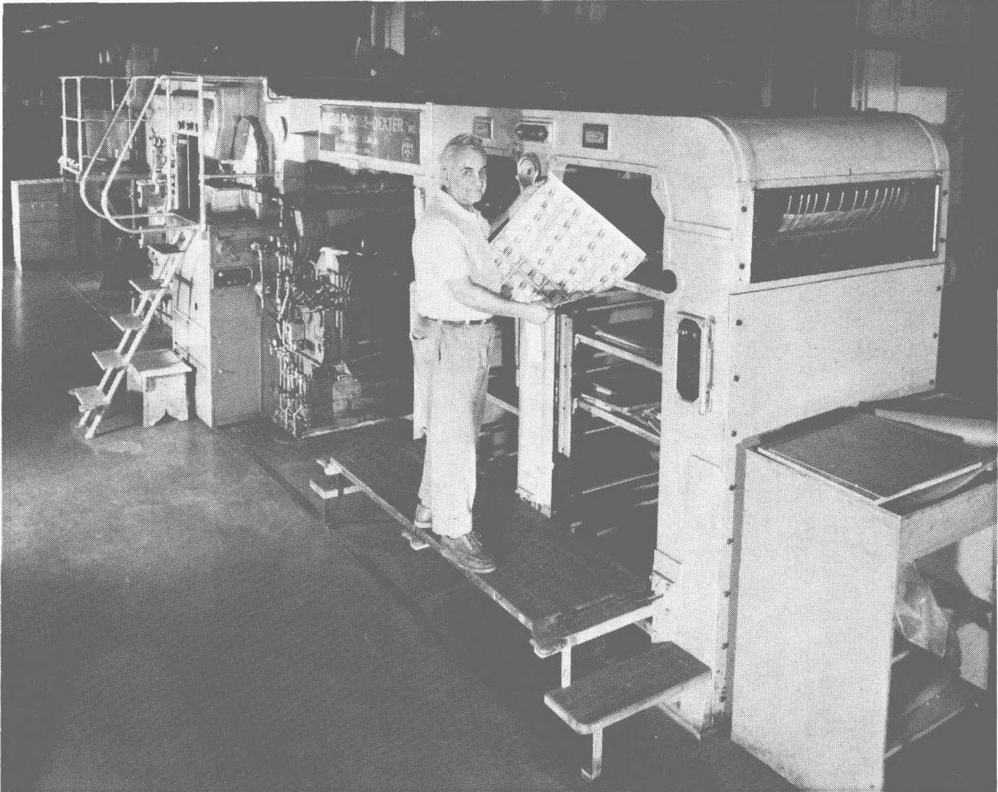

Figure 1-1. Federal Reserve notes being engraved (*Courtesy of the United States Treasury*)

addition, small amounts of silver certificates, Treasury notes of 1890, and several other minor note issues are in circulation; however, these are in the process of retirement. The Treasury issues coin and currency to the FRBs and from there this money gets into circulation in the same manner as Federal Reserve notes. At the close of 1978, the Treasury had outstanding $12 billion in coins and currency.

Commercial Banks

Commercial banks produce **demand deposits.** At the end of 1978 these totaled $264 billion. Demand deposits simply are bookkeeping credits (liabilities) of commercial banks. Most demand deposits are *created* in the process of banks making loans and investments. Suppose you wished to buy a new Oldsmobile Cutlass and a bank agreed to lend you money to buy it. At the bank, you would

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