MONEY, BANKING, and the ECONOMY

a Monetarist View

Barry N. Siegel

Money, Banking, and the Economy
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ACADEMIC PRESS
A Subsidiary of Harcourt Brace Jovanovich
New York London
Paris San Diego San Francisco São Paulo
Sydney Tokyo Toronto

Academic Press, Inc.
111 Fifth Avenue
New York, New York 10003

United Kingdom Edition published by
Academic Press, Inc. (London) Ltd.
24/28 Oval Road, London NW1 7DX

ISBN: 0-12-641420-3

Printed in the United States of America

To My Wife Jetta

Preface

Readers are warned that they will find no IS–LM diagrams in this book. Instead, they will find a systematic development of a model of nominal income based upon the Cambridge equation and the loanable funds theory of interest. They will also find an application of that model to the business cycle, to inflation and stagflation, to the balance of payments and foreign exchange rates, and to monetary and fiscal policy theories.

The major innovation of this book is its systematic "monetarist" approach. The approach is a blend of the pre-Keynesian quantity theory, the tradition represented by D.H. Robertson, and the modern monetarist school, represented by Milton Friedman and his followers. Although some space is devoted to the question of monetary versus nonmonetary theories of the business cycle, very little attention is paid to the monetarist–Keynesian debate. This by now stale conflict was reduced by Franco Modigliani in 1977 to a discussion over the value of activist stabilization policies.[1] In 1980, stabilization policies themselves were "officially"—but probably temporarily—laid to rest by the Joint Economic Committee of Congress and the International Monetary Fund.[2]

As a teacher, I have found that an eclectic approach to monetary theory more often confuses than enlightens the typical undergraduate student. In addition, it frequently leads to rather academic discussions of doctrinal history that are more important to the instructor than the student. Students expect and want a theory that helps them understand and evaluate events and policies of their own time. In my opinion, the monetarist framework is most appropriate for that purpose. Keynesian economics, as J.R. Hicks once said, is depression economics. When it came to inflation, Keynes himself was more of a monetarist than a Keynesian.[3]

Except for its monetarist emphasis, the book is conventional. Any money and banking text worth its salt must equip students with knowledge of the language and institutions of the field. Thus the first half of the book is taken up with the concept of money (Chapter 1); the new and

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[1]Franco Modigliani, "The Monetarist Controversy, or, Should We Forsake Stabilization Policies," *American Economic Review,* Vol. 67, No. 2, March 1977, pp. 1–19.

[2]*The 1980 Midyear Review of the Economy: The Recession and the Recovery* (Washington, D.C.: Joint Economic Committee, U.S. Congress, August 1980), Chapter II; and the International Monetary Fund, *Finance and Development,* September 1980, pp. 9–10.

[3]For substantiation of this point, see Thomas M. Humphrey, "Keynes on Inflation," Federal Reserve Bank of Richmond, *Economic Review,* Vol. 67, No. 1, January/February 1981, pp. 3–13.

old definitions of the things that serve as money (Chapter 2); the structure and institutions of financial markets and financial instruments (Chapter 3); banks, banking markets, and banking regulations (Chapters 4 and 5); the money supply process (Chapter 6); the structure and functions of the Federal Reserve System (Chapters 7, 8, and 9); and an analysis of the problem of implementing monetary policy (Chapter 10). The book is as up-to-date as possible on important banking and financial legislation—including a discussion of the Monetary Control Act of 1980—and the practices of the monetary authorities. In these times of rapid change, however, a six-month lag in publication can render parts of the manuscript obsolete. Today, competence in teaching money and banking requires daily perusal of such publications as *The Wall Street Journal.*

The middle sections of the book are devoted to a development of the monetary theory of income. Chapter 11 discusses the Clower–Leijonhufvud idea of Say's Principle, a concept that is essential for understanding the intimate connection between the idea of monetary equilibrium and income equilibrium. But attainment of income or monetary equilibrium in an economy requires application of the Fundamental Proposition of Monetary Theory, which, according to J.M. Keynes and Milton Friedman, asserts that movements in income and/or prices are required to bring into equality the aggregate demand for and the existing stock of money. This proposition is the cornerstone of the quantity theory of money as described by the equation of exchange or the Cambridge equation (Chapter 12).

A complete monetary model of nominal income requires a theory of interest. Chapter 13 develops such a theory through the loanable funds approach and then integrates the theory of interest into the theory of income through the agency of a two-equation model that simultaneously determines the rate of interest and nominal income. The model is then extended (Chapter 14) to include the effects of fiscal policy on these two variables.

Chapters 15 and 16 draw upon the work of Milton Friedman and Anna Schwartz, Michael Darby and Robert Barro to develop the connection between money and business cycles. This "frontier stuff" is a natural framework for breaking down the theory of nominal income into a theory of real output and a theory of price level fluctuations. Moreover, it sets the stage for Chapters 17 and 18, which provide rather extensive treatments of inflation and stagflation. The discussion in these chapters keys on the crucial role of inflationary expectations—adaptive and rational—in explaining the links between monetary changes, changes in output, and changes in prices.

The last two chapters are also close to the frontiers of macroeconomic thought. Chapter 19 features a monetarist model of the balance of payments and exchange rates, and Chapter 20 provides a monetarist–public choice perspective upon the efficacy of monetary and fiscal policies. Readers will note that the author lets off a little ideological steam in this chapter.

Readers who wish a more detailed guide to this book are urged to consult the table of contents and especially the chapter preview outlines.

I wish to thank a number of people who have kindly read and criticized portions of the manuscript. These include, first, students in my money and banking classes, many of whom were subjected to the first 14 chapters in test runs. I also want to thank my colleagues, Robert Campbell, Richard Davis, Henry Goldstein, Michael A. Groves, and Stephen Haynes for their encouragement and comments upon various parts of the book. Richard Sandell (Mercy College), Conrad Caligaris (Northeastern University), John Marcis (Kansas State University), Allen Sanderson (Princeton University), and Susan Woodward (UCLA) were most helpful in reviewing the manuscript for the publisher.

Finally, I want to thank my wife, Jetta. Without her untiring and good natured (and sometimes not so good natured) help, this book would have taken at least one more year to write. She typed the bulk of the manuscript and provided invaluable editorial comment. I drew heavily upon credit built up from 29 years of marriage.

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Contents

Preface *xiii*

1

Problems of a Money Economy

1.1 The Functions of Money and Economic Efficiency *3*
1.2 Money and Economic Instability *12*
Summary *22*
Discussion Questions *22*
Important Terms and Concepts *23*
Additional Readings *23*

2

The United States Money Stock: Changing Definitions

2.1 The U.S. Money Stock—Old and New Definitions *25*
2.2 Which Definition of Money Is Best? *35*
Summary *39*
Discussion Questions *40*
Important Terms and Concepts *40*
Additional Readings *41*

3

Financial Markets and Financial Institutions

3.1 Types of Financial Markets *43*
3.2 Some Detail on Financial Intermediaries *51*
3.3 Federal and Federally Sponsored Credit Agencies *55*
3.4 Financial Instruments *57*
Summary *68*
Discussion Questions *69*
Important Terms and Concepts *70*
Additional Readings *70*

4
The Banking Business: Fundamentals

4.1 Commercial Banks as Firms *73*
4.2 Time and Savings Deposits; Borrowing and Bank Capital *86*
4.3 Bank Assets *93*
Summary *97*
Discussion Questions *98*
Important Terms and Concepts *98*
Additional Readings *98*

5
Bank Operations, Regulation, and Structure

5.1 Running a Bank *101*
5.2 Bank Regulation *113*
5.3 The Structure of the U.S. Banking Industry *118*
Summary *125*
Discussion Questions *125*
Important Terms and Concepts *126*
Additional Readings *126*

6
The Money Supply Process

6.1 An M-1 Money Supply Model *129*
6.2 Shifts in the Money Multipliers *142*
6.3 Analysis of Monetary Changes, 1960–1978 *144*
Summary *146*
Discussion Questions *146*
Important Terms and Concepts *147*
Additional Readings *147*

7
Organization and Control of the Federal Reserve System

7.1 Organization of the Federal Reserve System *149*
7.2 Independence of the Federal Reserve System *158*
7.3 The Fed's Declining Membership *160*
7.4 The Monetary Control Act of 1980 *161*
Summary *164*
Discussion Questions *164*

Important Terms and Concepts *165*
Additional Readings *165*

8
The Federal Reserve System as a Central Bank
8.1 The Fed's Balance Sheet *167*
8.2 Member Bank Reserve Equation *173*
8.3 The Monetary Base as a Policy Target *177*
Summary *180*
Discussion Questions *180*
Important Terms and Concepts *181*
Additional Readings *181*

9
The Instruments of Monetary Policy
9.1 Open Market Operations *183*
9.2 The Discount Mechanism *187*
9.3 Reserve Requirements as a Policy Instrument *194*
9.4 Selective Instruments of Monetary Policy *197*
9.5 Moral Suasion *205*
Summary *205*
Discussion Questions *206*
Important Terms and Concepts *206*
Additional Readings *207*

10
The Strategy of Monetary Policy
10.1 An Outline of the Strategy Problem *209*
10.2 Past Monetary Policy Strategies *217*
10.3 Recent Strategies of Monetary Policy *224*
Summary *232*
Discussion Questions *233*
Important Terms and Concepts *233*
Additional Readings *233*

11
Say's Principle and Monetary Equilibrium
11.1 Demand, Supply, and the Concept of Market Equilibrium: A Review *237*

11.2 Say's Principle *241*
11.3 Monetary Equilibrium and Disequilibrium *245*
11.4 Income Equilibrium and Monetary Equilibrium *249*
11.5 Equilibrium Income and Full Employment *252*
Summary *253*
Discussion Questions *254*
Important Terms and Concepts *254*
Additional Readings *255*

12
Money and the Theory of Money Income

12.1 The Quantity Theory of Money *257*
12.2 The Demand for Money *262*
12.3 A Monetary Theory of Money Income *270*
Summary *280*
Discussion Questions *282*
Important Terms and Concepts *283*
Additional Readings *283*

13
The Rate of Interest and the Theory of Income

13.1 Say's Principle and the Bond Market *288*
13.2 The Theory of Interest *291*
13.3 A Monetary Theory of Income *307*
Summary *311*
Appendix: The Term Structure of Interest Rates *312*
Discussion Questions *315*
Important Terms and Concepts *316*
Additional Readings *316*

14
The Federal Budget and the Economy

14.1 Methods of Financing Government Spending *319*
14.2 Effects of a Pure Fiscal Policy on Money Income *322*
14.3 Fiscal Policy Financed with Changes in the Money Supply *33*
14.4 Empirical Evidence on Fiscal Policy *340*
Summary *341*
Discussion Questions *342*
Important Terms and Concepts *343*
Additional Readings *343*

15
Transmission Mechanism of Monetary Influences on Income

15.1 How Monetary Shocks Affect Nominal Income *346*
15.2 The Effects of Monetary Shocks on Output and Prices *354*
Summary *364*
Discussion Questions *365*
Important Terms and Concepts *366*
Additional Readings *366*

16
Money and Business Cycles: The U.S. Experience

16.1 Monetary and Nonmonetary Theories of the Business Cycle *369*
16.2 Behavior of Money Supply over the Business Cycle *374*
16.3 Cyclical Changes in the Cambridge *k* (or the Income Velocity of Money) *381*
16.4 A "Neoclassical" Supply-side Monetary Model *385*
Summary *387*
Discussion Questions *390*
Important Terms and Concepts *390*
Additional Readings *390*

17
Inflation: Cause and Effects

17.1 The Problem and Its Causes *393*
17.2 Some Myths of Inflation *404*
17.3 Effects of Inflation on Households and Business *411*
17.4 Inflationary Redistributions of Wealth and Income *417*
17.5 Effects of Inflation on Resource Allocation *422*
Summary *423*
Discussion Questions *425*
Important Terms and Concepts *426*
Additional Readings *426*

18
Inflation and Unemployment: The Stagflation Problem

18.1 The Natural Unemployment Rate Hypothesis *430*
18.2 Expectations-augmented Phillips Curves and the Accelerationist Hypothesis *436*
Summary *447*

Discussion Questions *448*
Important Terms and Concepts *448*
Additional Readings *449*

19
Money, the Balance of Payments, and Exchange Rates

19.1 Money and the Balance of Payments under Fixed Exchange Rates *451*
19.2 Flexible Exchange Rates and the Purchasing Power Parity Theory *466*
19.3 World Inflation *475*
Summary *477*
Discussion Questions *479*
Important Terms and Concepts *480*
Additional Readings *480*

20
New Views on Stabilization Policies

20.1 Brief Review of Empirical Evidence on Policy Activism *484*
20.2 The Credibility Effect, the German Hyperinflation, and the Fed *493*
20.3 Incomes Policies *495*
20.4 Can Democracy Tame Inflation? *497*
Summary *506*
Discussion Questions *508*
Important Terms and Concepts *508*
Additional Readings *508*

Glossary *511*
Index *533*

Money, Banking, and the Economy A Monetarist View

1 Problems of a Money Economy

O U T L I N E

The Functions of Money and Economic Efficiency
Direct and Indirect Exchange
Benefits of Indirect Exchange through Money
Money as a Standard of Value (Unit of Account)
Money as a Store of Value
Money as a Standard for Deferred Payment
Money and Capital Formation
Money and Economic Instability
Say's Law, Say's Principle, and "Generalized Overproduction"
Monetary Sources of the Business Cycle
The Role of Credit in Business Fluctuations

Money is a social institution that brings great benefits to people by permitting efficient exchanges of goods and services. But when money is mishandled by the powers that be, it is a source of inflation and unemployment. It would be good to have a monetary system that generates only benefits; but that is probably not possible. Why this is so will be an important part of the story told in this book. Before we proceed with that story, however, we must spend some time discussing the functions of money and, particularly, the benefits that accrue to society from its use.

1.1
The functions of money and economic efficiency

Lenin is said to have once declared that the best way to kill off a capitalist society is to debauch its currency. How right he was! But he should have gone on to say that *any* society that depends upon the division of labor and exchange between productive parties would be severely retarded if its monetary system were destroyed. Money is a social institution that transcends the categories of socialism and capitalism. It is an institution that any society pretending to sophistication and complexity must sooner or later adopt. Money greatly reduces the costs of market exchange, and it provides a basis for rational economic calculations. Moreover, economic growth, which depends on technological change and capital formation, is significantly enhanced by its presence.

All these good things are difficult to demonstrate with facts. For that reason, the benefits associated with a well-functioning monetary system may go unappreciated by people who live within such a system. Even so, we can develop such an appreciation by comparing the operations of a money-exchange economy with systems of exchange that do not use money. In so doing, we can also develop an understanding of the basic functions of a monetary system.

1.1.1
Direct and indirect exchange

People produce and consume goods and services, but they seldom consume what they produce. In a barter economy, everybody specializes in the production of specific items they think other people want, and they trade for whatever they need. If they are lucky, they always find someone with whom to trade. For example, the butcher acquires through trade bread, butter, shirts, beer, shoes, trousers, and all other things he needs to satisfy his wants. The same is true of the tailor, the baker, the cobbler, the dairyman, and all the rest of the people in the economy.

Unfortunately, a market economy based upon voluntary exchange cannot function effectively by barter alone. Barter is the *direct* exchange of goods between two people who find the exchange mutually advantageous. It is always possible to find someone to trade with, but it is not always possible to trade in a manner that leaves everyone better off.

This point is easily demonstrated with an example of a minimal exchange economy—one with three traders (Al, Bob, and Carol) and three goods (apples, berries, and cherries).[1] Suppose we initially endow Al with berries, Bob with cherries, and Carol with apples. Suppose also that the preferences of the three individuals are quite different than the way we have distributed the three goods to them, as indicated in the following table (where a stands for apples, b for berries, c for cherries, and $>$ for "preferred to"):

Individual	Preferences	Initial Endowments
Al	$a > b > c$	b
Bob	$b > c > a$	c
Carol	$c > a > b$	a

Al prefers apples to berries, and berries to cherries. He would like to improve on his initial position by trading his endowment of berries for apples, but he cannot. Bob would gladly give him cherries for his berries, but Al would refuse, since that would put him in a position he regards as less desirable than his initial position. Carol would refuse to trade with Al because she would have to give up apples for berries, and that would put *her* in a less preferred position.

And so it goes with the other individuals. Each has the means to achieve a preferred position, but none can reach it through direct trade. That being the case, each person must remain in a less preferred position, consuming what he or she has, with the forbidden fruit just out of reach.

The example is rigged to make barter impossible. The real world actually contains many opportunities for improvement through direct exchange. Nonetheless, as the number of traders and commodities multiply, the situations in which barter is impossible also increase. At some point, it pays society to drop barter and adopt a different system of exchange.

You guessed it. An economy needs money. But before we introduce

[1]This example was inspired by J. Huston McCulloch in *Money and Inflation* (New York: Academic Press, 1975), Chapter 1.