MONEY, INFORMATION AND UNCERTAINTY

ALSO BY C. A. E. GOODHART

Monetary Theory and Practice: The UK Experience
The New York Money Market and the Finance of Trade, 1900–1913
The Business of Banking, 1891–1914

MONEY, INFORMATION AND UNCERTAINTY

Second Edition

C. A. E. Goodhart

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MACMILLAN

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Contents

	<i>Preface to the Second Edition, 1989</i>	ix
	<i>Preface to the First Edition, 1975</i>	xiii
	<i>Acknowledgements</i>	xvi
I.	The Nature of Markets	1
	Summary	1
1.	Market Structure	2
2.	Determination of the Size of the Spread	6
3.	Price Adjustments	11
4.	Market Existence: Success or Failure?	19
5.	Money and Markets: What is the Best Approach?	22
II.	The Role of Money	24
	Summary	24
1.	Certainty and Uncertainty	25
2.	Money, Information and Markets	29
3.	What Makes Currency Serve as Money?	34
4.	Bank Deposits, Cheque Payments and the Definition of Money	38
5.	Alternative Currencies	44
III.	Micro-Economic Foundations of the Demand for Money	51
	Summary	51
1.	The Transactions Demand for Money	52
2.	Asset Price Uncertainty and the Speculative Demand for Money	63
3.	Buffer-stock Models of Money Holding	75
IV.	Macro-Economic Analysis of the Demand for Money	82
	Summary	82
1.	The Transition from Micro- to Macro-studies of the Demand for Money	83
2.	The Progressive Collapse of Stability in the Demand-for-Money Function	95
V.	The Principles of Intermediation	104
	Summary	104
1.	The Role of the Intermediary – 1	105
2.	The Role of the Intermediary – 2	113
3.	Banks and OFIs: Differences and Similarities	121

VI.	Controlling the Supply of Money: A Problem for the Authorities?	129
	Summary	129
1.	Multiplier Analysis?	130
2.	Government Finance and Open-market Operations	137
3.	Competition with the Private Sector	145
4.	Complications and Conclusions	153
VII.	Credit Rationing	156
	Summary	156
1.	Credit Control	157
2.	Disequilibrium Rationing	163
3.	Equilibrium Rationing	168
VIII.	Why Do Banks Need a Central Bank?	176
	Summary	176
1.	The Central Bank as Organiser of the 'Club' of Commercial Banks	177
2.	Banks' Twin Functions in Providing Both Payments and Portfolio Management Services	181
3.	Bank Portfolios and Central Bank Support	188
IX.	Financial Regulation	194
	Summary	194
1.	The General Theoretical Critique of Regulation	195
2.	The Economic Argument for Regulation	202
X.	The Determination of Interest Rates	214
	Summary	214
1.	Practical Issues	215
2.	Theory	222
3.	The Demand for Money and the Demand for Credit	227
	Appendix: Monetary Base Control: The Examples of Switzerland, and of the USA in 1979–82	234
XI.	The Term Structure of Interest Rates	238
	Summary	238
1.	The Theory of the Term Structure	239
2.	Empirical Studies of the Term Structure of Interest Rates	251
3.	Rational Expectations and the Term Structure	255
XII.	The Transmission Mechanism of Monetary Policy	263
	Summary	263
1.	The Keynesian (<i>IS/LM</i>) Framework	264
2.	The Monetarist Counter-offensive	274
3.	Buffer-stock Money	281
4.	Wealth Effects	285

XIII.	The Effects of Nominal Monetary Changes on Output, Employment and Inflation	292
	Summary	292
1.	Uncertainty, Unemployment and Price Expectations	294
2.	Rational Expectations and Policy Impotence	303
	Appendix: UK Indexed Gilts: A Case Study of Financial Indexation	316
	1. Why Academics and Central Bankers Hold Different Views	316
	2. The UK Experience, 1970s and 1980s	321
XIV.	Monetary Policy – 1: The Use of Policy Instruments in an Uncertain World	328
	Summary	328
1.	Objectives and Instruments	329
2.	Policy Under Uncertainty – 1: Random Disturbances	338
3.	Policy Under Uncertainty – 2: When the Structure of the System is Not Known	349
XV.	Monetary Policy – 2: Rules versus Discretion	353
	Summary	353
1.	The Historical Record, 1973–9	354
2.	Rules versus Discretion	361
3.	The Historical Record, 1979–87	369
4.	Whither Now?	380
XVI.	The Regional Adjustment Process	385
	Summary	385
1.	Financing Current Account Imbalances: The Capital Account	386
2.	Adjustment to a Current Account Imbalance	392
	Appendix: A Framework for the Analysis of Inter-regional Adjustment	404
XVII.	International Monetary Relations – 1: Exchange Rate Regimes	416
	Summary	416
1.	Optimal Currency Areas	417
2.	Monetary Relationships Between Currency Areas	428
XVIII.	International Monetary Relations – 2: The Turbulent Float	438
	Summary	438
1.	The Experience of Floating Exchange Rates Since 1973	439
2.	Why Were Flexible Rates so Unstable?	444
3.	Attempts to Establish a More Stable Regime	452
	<i>Bibliography</i>	458
	<i>Index</i>	483

Preface to the Second Edition, 1989

Much has changed in the subject matter covered by this book since it was first drafted in 1973. In the policy field, for example, the Bretton Woods system of pegged, but adjustable, exchange rates was succeeded by a period of, more or less managed, floating exchange rates, whose misbehaviour became an increasing subject of concern by the mid-1980s. Associated with these external developments, domestic monetary policy switched from primary concern with maintaining interest rates in order to balance the (conflicting) requirements of external stability and internal full employment towards primary concern with achieving quantitative monetary targets in order to reduce inflation and/or *nominal* incomes: then, as the prior predictability of the relationships between nominal incomes and (the target) monetary aggregates collapsed in many countries in the 1980s, while at the same time inflation had been brought back to more acceptable rates, so the pendulum swung back towards the earlier policy approach.

The course of monetary history, and of monetary policy changes, both reflected and shaped developments in monetary theory. The main battlefield in the 1970s was contested by Monetarists and Keynesians. The apogee of influence of the Monetarists was achieved sometime around 1979–80, with the election of governments in the UK and USA committed to free markets, including notably freely floating foreign exchange rates, and to monetary targetry. Events since then have led to some practical disillusion with the precepts of the Monetarist school.

Whereas this has simply reconfirmed some more traditional Keynesians in the belief that they were correct all along, the newer, and perhaps more influential, school of neo-classical economists in the USA, (e.g., Lucas, Sargent, Wallace), claimed that the breakdown of the stability of the so-called ‘structural equations’, notably the demand-for-money function, on which the Monetarists had placed so much weight, was an inevitable result of changes in the policy regimes in operation and of changes in underlying structure of the economy itself. In some part these changes occurred as a result of the recommendations of the Monetarists themselves.

These neo-classical economists have criticised both the Keynesian and earlier Monetarist economists for basing their analyses insecurely on *ad hoc* micro-economic foundations. They have claimed that a macro-economic superstructure can be erected only on a firm basis of sufficiently rigorous micro-economic analysis. In one respect I fully agree with this. Most of the interesting, and fruitful, developments in the field of money and banking currently seem to me to be at the micro level – e.g., on the theory of the role of banks (Chapter 5), on credit rationing (Chapter 7), on the working of financial markets and of market makers within them (Chapter 1) – whereas macro-level policy thinking, both on the domestic front (Chapter 15) and internationally (Chapter 18), has currently reached an exhausted impasse.

Yet the neo-classical economists have, it seems to me, chosen to pursue the wrong micro-level paradigm. Because the Walrasian, perfect-clearing markets paradigm is

both rigorous, tractable, mathematically elegant, and the main heuristic system used in micro-economics, the neo-classical economists have used it generally as the basis for their macro-models. My belief is that perfect, instantaneous clearing markets are not a general feature of the 'real world' and, moreover, that many – perhaps most – of the conditions that monetary economists wish to explore (e.g., the role of money and of banks) would simply have no place in a world characterised by perfect, instantaneously clearing markets. It is no accident that in many of the latest studies of 'real business cycles' money plays no essential role.

Rather than reach for some set of prior assumptions about the way markets work, economists ought to study them in practice. I believe that this is now increasingly happening, which is why, despite the current failure to present a coherent *macro-economic* set of theories, explanations and policy precepts, I find the current developments in this field at the *micro-theoretical* level extremely exciting.

Because of the importance that I believe needs to be attached to establishing with complete clarity the micro-level basis on which the subsequent macro-level analysis is based, this revised edition starts with an entirely new chapter on 'The Nature of Markets'.

In this, I explain what the conditions and circumstances are that lead market makers to adjust prices at varying speeds, in some cases fast, in others sluggishly, so that the adjustment to shocks and to 'news' is taken in part in quantity adjustments and in part in price adjustments.

For reasons that I believe can be established in a properly rigorous form – though I would *not* claim to do that here – the real economy adjusts relatively slowly, with both prices and quantities in goods and labour markets adjusting slowly, and exhibiting inertia, in response to shocks. If there is, for example, a monetary shock, and certain markets, for labour and goods, react sluggishly, whereas financial markets react much more quickly, then it can be shown that there could be expected to be a tendency for asset prices in such markets (e.g., foreign exchange rates, interest rates) to 'overshoot' on the occasion of such shocks. This is, for example, the basis of the Dornbusch 'overshooting' hypothesis in the foreign exchange market, but the analysis can be, and has been, applied more widely.

My impression of the historical data for asset prices is, however, that they do not exhibit a pattern over time consistent with 'overshooting' in response to shocks and 'news'. My explanation of this is that people do not like to be on the receiving end of shocks, and have established various buffering devices to reduce the extent of such shocks. Prominent among such mechanisms is the willingness of agents to allow their monetary holding to act as a buffer, temporarily expanding or declining in response to (unforeseen) shifts in monetary flows.

Thus, in addition to my other various idiosyncrasies, some of which are mentioned in the Preface to the first edition, I have a clearly established position in monetary economics, as a sticky-price, buffer-stock theorist. Although there are a few other economists who take this view, notably David Laidler, it is not widely popular. The neo-classicists dispute the existence, or the importance, of sticky prices; many of the Keynesians and the earlier Monetarists, who would accept that some markets do adjust slowly, have not seen any need to complement that view with a buffer stock approach. Readers should be aware of, and aim off for, my own idiosyncrasies.

For the rest I hope that I am reasonably mainstream. As earlier noted, in some areas, especially on the micro side, this stream has been moving rapidly in recent years; in some other areas there has been little progress. Accordingly my strategy has been to leave whole chapters or sections unchanged from the first edition, in those

areas where little development has occurred, but to introduce completely new material, chapters and sections, where warranted. This may cause some unevenness in the book, but it certainly saved an enormous amount of time.

Thus the bulk of the opening chapters in the earlier edition have been retained (after the insertion of the new Chapter on 'The Nature of Markets'), but a new section has been added on in each case describing recent developments, in Chapters 2–4. The next chapters, on financial intermediation and the supply of money, Chapters 5–6, involve a reordering of earlier material, plus a section on recent theoretical analyses of the functions of banks in the economy. The next three chapters, on 'Credit Rationing', on the 'Need for a Central Bank', and 'Financial Regulation', are new, and spring from the growing interest in some of the micro, structural issues in this general area.

Chapters 1–9 cover essentially micro issues; Chapters 10–18 cover mainly macro issues. Chapter 10 is new, and covers that perennial subject of complexity and discord, 'The Determination of Interest Rates'. This leads on to a chapter on 'The Term Structure', where again an additional section has been added to the earlier material. Chapters 12 and 13, covering the transmission mechanism of monetary effects onto nominal incomes, output and prices, involve a more complex interweaving of old and new material; again the opening sections are mostly old, though much rearranged, while the final sections are mainly new. Turning then to the sections on macro policy, first domestic then international, the chapters from the first edition, coming now as Chapters 14, 16 and 17, have been left virtually untouched, while a further chapter in each case, Chapters 15 and 18, has been added, taking the story of the history and analysis of monetary policies on from 1973 to the mid-1980s.

Once again I should emphasise that, while my view of such policy changes was undoubtedly assisted by my ring side seat in the Bank of England until mid-1985, the judgements on them expressed here remain absolutely my own. One of the benefits of returning to academic life was that it gave me time (though not enough) and an opportunity to carry out this revision. But in the midst of trying to re-establish my teaching and research programme, and helping with Mervyn King to found the LSE Financial Markets Group, this extra work seemed a heavy load indeed. I could not have done it without help from many friends, and the tolerance of my family.

In particular I must mention Mark Mullins, who helped me greatly on the editorial side, and Lesley Spencer and Kim Frame, who bore the brunt of the secretarial work.

C. A. E. G.

Preface to the First Edition, 1975

In recent years there has been a spreading movement among economists to re-examine and to explore the fundamental insights into the working of the real economy which Keynes expressed so vividly. These are, shortly, that the world is filled with uncertainty, that actions are based on insecure expectations, that accurate information is at a premium, and that mistakes are constantly being made, so that our system lurches from one short-term period of disequilibrium to another.

This view of the central message of Keynes's work, maintained by Shackle over many years, revived by Leijonhufvud and further advanced in recent years by economists such as Alchian and Clower, leads on to the interpretation of the role of money as an informational device made necessary by the enfolding uncertainties of a complex economy. This approach, of course, stands in clear contrast to the construction of general equilibrium systems (à la Walras) in which it is often hard to see what necessary functions money plays at all. So, conceptually, the main theme of this book is the critical importance of uncertainty for understanding the working of the monetary system.

The increasing appreciation of the validity of Keynes's emphasis on the importance of uncertainty, expectations and information costs has, however, been accompanied by a continuing criticism of several of the analytical moulds into which Keynesian theory was simplified and subsequently rigidified. Pre-eminent among these formulations is the *IS/LM* model initially constructed by Hicks. And there are certain other parts of Keynesian analysis which have remained in their simplified moulds, for example the analysis of the determination of the money supply in terms of a multiplier relationship between the monetary base and the money stock. Indeed, one touchstone of areas in macro-economics where analysis has failed to advance has been those that rely on mechanical multiplier relationships between aggregates, rather than relate adjustments to behavioural responses to changes in market signals, usually in the form of shifts in relative prices. In the field of monetary economics the greatest steps forward in this latter direction have been taken by Tobin and the Yale school, particularly in their development of the analysis of portfolio adjustment. Analytically, portfolio adjustment is the main descriptive tool used in the following chapters to examine the working of the monetary system.

In any case, these and many other developments that have taken place in recent years have led to a growing divergence between the substance of current research work appearing in the journals and the contents of many of the existing textbooks. Therefore, there appeared to be something of a gap to be filled by an intermediate textbook which could cover the space between the contents of existing introductory textbooks and the state of current theoretical analysis. What is meant by the term 'intermediate' is that it is assumed that all readers already have a firm grounding in standard Keynesian macro-economic analysis, in particular the *IS/LM* paradigm, and also have had at least an introductory course in money and banking. It is

primarily intended for undergraduates in their final year and graduate students who are specialising in monetary economics.

The objective of the book is to advance as far as practically possible into the conceptual framework that lies behind recent analytical developments in monetary economics. In that respect it enters into some fairly complicated fields. On the other hand, it includes virtually no mathematical or econometric analysis, so it requires very little in the way of prior technical skill from the reader. This is partly intended, in order to encourage readers to find out what current monetary economics is all about without slogging through thickets of equations, and partly imposed by my own technical limitations.

Within the framework of the general structure of the book, and in most subsections, I have normally tended to start with the micro-economic aspects of the subject at hand, dealing with these on a fairly abstract theoretical level. Then we move on towards the macro-economic, practical and even policy-oriented areas of the subject. In this context I have consciously pointed out in several places the political forces and constraints that bear on monetary economics. Our subject has been rightly called 'political economy', and those who choose to leave out the politics in the pursuit of rigour, or the avoidance of value judgements, or whatever, are to my mind losing too much that is important for the relevance and the immediacy of the subject.

Writing a textbook, mainly consisting of interpretations of the work of others, is a humble, even a humbling, task. Yet perhaps readers should be warned that at certain points the analysis presented here is individualistic, and does not represent an attempt merely to produce and to interpret the accepted work of leading monetary economists. In particular the chapter on the determination of the stock of money and the working of the financial system, with its concentration on the portfolio adjustment approach and its rejection of multiplier analysis, is out of sympathy with the mainstream of current work in this field.

Moreover, even when one is trying to do no more than to extract the central elements of accepted analysis, one's selection process, deciding what is important and what is not, is inevitably biased by one's views and background experience. Here I hope that my own background of working, both as an academic economist and as an adviser in government and in the Bank of England, has helped to give some grasp of which areas of theoretical analysis have a practical relevance, and which do not.

I have learnt much during my work in the Bank. Nevertheless the views, and errors, expressed in this book are very much my own, and no one should attribute anything here to a Bank view, if indeed such a stable, monolithic entity can ever be truly said to exist. This book was written, though, in time which the Bank allowed me to take away from my regular duties, and for this I am very grateful. In this respect I have a special debt of gratitude to Leslie Dicks-Mireaux who arranged that this could be possible.

There would have been many more errors and quirky views contained in this book but for the great help which I received from colleagues and friends in the course of its preparation. Among those whose comments and criticisms on earlier drafts of the book were particularly helpful, I should like to mention Bill Allen, Andrew Bain, Peter Burman, Vicky Chick, Tony Coleby, Andrew Crockett, David Laidler, Kit McMahon, Robin Marris, Rainer Masera, Allan Meltzer, Marcus Miller, Steve Nickell, Bill Poole, Lionel Price, David Sheppard, Case Sprenkle, Michael Thornton, Geof Willetts, John Williamson and Geof Wood. I should, perhaps, add that often the most helpful and trenchant comments and criticisms came from those who do not share my viewpoint on monetary economics.

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But perhaps the main burden falls upon an author's family, who ceased in this case to see much of me at weekends for over a year. To them I can only apologise for selfishly pursuing the urge to write this book.

C. A. E. G.

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