The Economics of Money, Banking & Financial Markets

European Edition

Frederic S. Mishkin
Kent Matthews
Massimo Giuliodori

MyEconLab

ALWAYS LEARNING

PEARSON

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PREFACE

Hallmarks

Although this text has undergone a major revision and adaptation for the European context it retains the basic hallmarks of all past Global editions that have made it the best-selling textbook on money and banking over the past editions:

- A unifying, analytic framework that uses a few basic economic principles to organize students' thinking about the structure of financial markets, the foreign exchange markets, financial institution management and the role of monetary policy in the economy
- A careful, step-by-step development of models (an approach found in the best principles of economics textbooks), which makes it easier for students to learn
- The complete integration of an international perspective throughout the text
- A thoroughly up-to-date treatment of the latest developments in monetary theory
- A special feature called 'Following the financial news' to encourage reading of a financial newspaper
- An applications-oriented perspective with numerous applications and special-topic boxes that increase students' interest by showing them how to apply theory to real-world examples

What's new in the European adaptation

The basis of the adaptation was the 9th Global edition. The figures and data have been replaced by or supplemented with UK and other European countries' data. The text in each chapter reflects the Europeanization of the material while retaining the essential features of the original Global editions. There is major new material in every part of the text.

Chapter 1 Why study money, banking and financial markets?

This chapter lays the foundations for the following chapters. It contains new material that refers to the interest rates of the UK and the major economies of the euro area. The broad sweep of the history and volatility of stock markets in the twentieth and twenty-first centuries is discussed by comparing the evolution of the FT30 index and the Dow-Jones from 1935. The foreign exchange market is given greater prominence in the book and is introduced earlier in this chapter.

The structure of the chapter follows closely the 9th Global edition but the examples of money and business cycles and the long-run relationship between inflation and money is taken from the UK. There are two reasons why the UK is used to illustrate the long-run relationships between money, interest rates, the business cycle and inflation. The first is that the euro area has not been in existence for long enough to provide an undisturbed long series of data that will adequately illustrate the economic relationships explored in the chapter. The second reason is that the UK provides an undisturbed example of long-term trends that have relevance for the euro area.

Chapter 2 An overview of the financial system

This chapter stays close to the structure of the 9th Global edition and provides data on the principal money market and capital market instruments in the UK as examples of the types of financial instruments that are traded in an advanced financial market. The principal financial intermediaries in the euro area and the UK are described and the boxes on 'Following the financial news' take examples from the *Financial Times*.

Chapter 3 What is money? A comparative approach to measuring money

The difference between the definition of money and the measurement of money is discussed in a special 'Closer look' box. It uses the evolution of the measures of money in the UK as examples of circumstances when financial innovation blurs the distinction between different means of payment systems, leading to changes in the measures of money while retaining the fundamental definition. The different measures of money in the euro area, the UK and the US are discussed and presented in Table 3.1 and the detailed components of the various measures of the euro area money supply are shown in Table 3.2.

Chapter 4–6 Understanding interest rates, The behaviour of interest rates and The risk and term structure of interest rates

These three chapters have remained largely unchanged as they are theoretical in substance. A notable addition in Chapter 4 is the 'Closer look' box that discusses the observation of real interest rates from the yields on UK index-linked bonds. Additionally Figure 4.1 shows how real interest rates can be backed out by subtracting econometrically generated inflation expectations following the Mishkin (1981) method, from the UK short-term rate of interest. Figure 5.7 uses the UK data on short-term interest to illustrate the relationship between the rate of interest and the business cycle. The 'Following the financial news' box contains a column from the *Financial Times* on UK index-linked bonds which is explained and analysed in the text. Chapter 6 uses the spread between the UK commercial bill rate and the UK risk-free rate of interest to illustrate the risk premium in short-term bonds. It also includes a discussion of the risk premium on interest rates due to sovereign debt default within the euro area. 'Following the financial news' includes a discussion and an analysis on UK yield curves produced by the *Financial Times* for yield curve shapes from 1981 to 2011.

Chapter 8 An economic analysis of financial structure

The context for this chapter is the European sovereign debt crisis that followed the global financial crisis which was itself sparked by the subprime crisis. The banking crisis and the impacts on the financial system in the euro area and the UK are explored in this chapter. The financial structure of the three largest economies in the euro area, the UK and the US are described. The chapter shows data for the sources of external funds for non-financial businesses in the US, the UK, France, Germany and Italy. The euro area and UK financial structure fits in with the eight basic facts about company financial structure. The attempts to remedy conflicts of interest in the US (Sarbanes–Oxley Act of 2002 and the Global Legal Settlement of 2002) are supplemented with a discussion of European Union Directives.

Chapter 9 Financial crises and the subprime meltdown

The 9th Global edition included an extensive analysis of why financial crises like the subprime crisis occur and why they have such devastating effects on the economy. This chapter follows the structure of the original edition and examines why financial crises occur and why they have such devastating effects on the economy. This analysis is used to explain the course of events in a number of past financial crises throughout the world, including the collapse of the European Exchange Rate Mechanism. A particular focus of the chapter is the explanation of the recent subprime crisis and the sovereign debt crisis in the euro area economies. A special section is on the dynamics of the euro area financial crisis and an additional application is the box on the sovereign debt crisis in the EU and the attempts by the ECB, the EU and the IMF to deal with a crisis that keeps on developing. The material in this chapter is very exciting for European students as it is as bang up to date in its information and analysis as the publication of a textbook will allow. As this book goes to print the sovereign debt crisis and the banking crisis have had political upheavals in Europe with changing governments in Italy, France and Greece. Far from coming to any form of resolution, the banking crisis has worsened in Spain.

Chapter 10 Banking and the management of financial institutions

Understanding the workings of banks begins with understanding the balance sheet of the banks. This chapter begins with the consolidated balance sheet of all commercial banks in the euro area. This is then compared with the balance sheet of a single universal bank in Germany as an example with the similarities and differences highlighted in the discussion. The process of maturity transformation is explained and the methods by which banks make profits are described by referring to the income statement of a large German bank.

Chapter 11 Economic analysis of financial regulation

The material in the Global box 'The spread of deposit insurance' has been updated to include information on the spread of deposit insurance as a result of the 2008 financial crisis. The extent of deposit insurance in the European Union is shown in Table 11.1. Examples of direct government help to banks in the European Union and the problem of moral hazard are explained. The notion of 'too important to fail' is explored in a seperate section. This is a case when the government thinks that a bank failure would infect the rest of the financial system, but even though it may not commit public funds to the exercise, the intervention alone could create moral hazard. An explicit exploration of the regulations in the Basle 1 is contained in a 'Closer look' box with an explanation of how the capital-adequacy ratio is calculated. The Global box on International financial regulation has been extended to deal with the Basle 3 regulations that are to be phased in by 2019. An additional section on the advantages and disadvantages of bank regulation is included as well as an EU-wide discussion on where regulation is going in the light of banking crises in Europe and the sovereign debt crisis.

Chapter 12 Banking industry: structure and competition

This chapter begins with the creation and development of the single banking market in the European Union. The result of attempts to promote competition has led to greater consolidation. Deregulation has occured in phases and these phases are discussed in a special section on deregulation and competition. The impact of deregulation and competition on bank structures is discussed in a special section on consolidation and downsizing. A special section on the structure of the banking sector in Europe discusses issues of concentration and competitiveness. A further section discusses the internationalization of banking.

Chapter 13 The goals and structure of central banks

This chapter has been substantially rewritten and contains a wider coverage of the goals and structure of central banks with special emphasis on the Bank of England, the ECB and the Federal Reserve. It includes a box on the benefits of price stability. Also the description of the Federal Reserve System includes a box on the differing styles of Bernanke and Greenspan as Governors. The independence of the ECB contains material that discusses the pressures it faces during the current financial crisis. Additional material in the section on central banks around the world includes a description of the central banks of Sweden and Norway. The chapter also includes an additional section on central banks in transition countries. The discussion on central bank behaviour is expanded and includes two additional boxes on making central banks more accountable and whether independence for central banks leads to lower inflation.

Chapters 14–15 The money supply process and The tools of monetary policy

While retaining the theoretical features of the 9th Global edition, these chapters have been reorganized to reflect the European context. The specific factors that determine the money supply in the context of the money multiplier are elaborated in Chapter 14. The historic trend of the UK M3 money multiplier is described as an example and recent trends are examined with the M3 multiplier of the euro area and the M1 multiplier of the US. A special box describing the operations of the monetary counterparts process explains the link between bank lending, the government budget deficit and funding of the deficit through bond sales. The counterparts process has a stronger resonance with the operations of the monetary process in the UK and the ECB than the simple textbook money supply process. Chapter 15 on the tool of monetary policy has been substantially rewritten to accommodate a more general framework which is useful to analyse the market for reserves in the euro area, the UK and the US, and to understand how the respective central banks can use their tools to affect the interest rates. This chapter also includes a number of boxes describing the unconventional monetary policies implemented by the Bank of England, the ECB and the Fed over the last few years. More specifically, a new box describes the mechanics of quantitative easing by the Bank of England. Further analysis of the European context includes a special box on extraordinary policy responses by the ECB to the current crisis in the form of the enhanced credit support and the securities markets programme. The box on the Fed's response to the crisis has also been updated.

Chapter 16 The conduct of monetary policy: strategy and tactics

The first part of this chapter has a section on the experience of monetary targeting in the UK, the US and Germany. The chapter continues with an extensive discussion of inflation targeting. In order to stress the importance of transparency and regular communication with the public, a special box that describes the working of the inflation fan chart used by the Bank of England is included. This chapter also features an extended coverage of the two-pillar monetary policy strategy of the ECB. After a discussion of the monetary strategy of the Fed, the chapter discusses the main tactics in choosing the policy instruments. Within this context, an updated section on the Taylor rule includes figures that show the rate generated by the Taylor rule and the respective policy rate of the UK and the US. The Fed Watchers box in the 9th Global edition is replaced by a Central Bank Watchers box that focuses on the Bank of England and the ECB.

Chapters 17–18 The foreign exchange market and The international financial system

The structure and theoretical content of the working of the foreign exchange market in Chapter 17 remains mostly unchanged with the context focusing on Europe. Additions worth mentioning are a discussion of alternative methods used in expressing the exchange rate and an updated application on the euro and the global financial crisis. Chapter 18 has also been rewritten to reflect a European focus, but the theoretical aspects remain largely unchanged. The section on the balance of payments describes the UK system as an example. The box on why large current account deficits worry economists has been extended to Germany and the UK. Following the recent proposals of policymakers, a new 'Reading the financial news' section on the Tobin tax has been added. The section that covers dollarization, currency boards and monetary unions now includes an extensive coverage of the benefits and costs of a monetary union. On top of a special box on the potential for a monetary union in the Arab Gulf Cooperation Council, this section features two new boxes discussing whether the existing euro area constitutes an optimal currency area and whether the EU countries outside the euro area will join the euro area.

Chapter 19 The demand for money

Chapter 19 is contextualized in the European setting with long-run movements in the velocity of circulation for broad money in the UK examined alongside the US. In particular the changes in the UK velocity are matched against recessions from 1915 onwards. The stability of the demand for money is examined in the context of the experience of M3 velocity in the euro area.

Chapters 20–23 The *ISLM* model, Monetary and fiscal policy, Aggregate demand and supply analysis and Transmission mechanisms of monetary policy

As theoretical chapters, these have had only a light revision to reflect the European context. In Chapter 20 the application of the collapse of investment spending demonstrates the effect for the UK economy in the 1930s. The application in Chapter 21 of the economic stimulus following the 2008 downturn includes stimulus plans by the European economies. A further application examines the effect of the British fiscal austerity programme of 2010 and the reunification of Germany in 1990. The theoretical model is extended to examine the mix of fiscal and monetary policy in unison. In Chapter 22, the effect of negative supply shocks is traced through unemployment and inflation for the UK and the euro area as well as the US in 1973–5. Similarly the effect of negative demand shocks during the 1980–3 period are traced through on inflation and unemployment in the UK and the US. Finally, this chapter includes a section on the effect of the global financial crisis on unemployment and inflation during 2007–8 for the UK, the US, the euro area and Japan. Chapter 23 includes a discussion of UK reform of the monetary mechanism and its effect on structural model evidence. The section on the traditional interest-rate channels includes a special box that summarizes the research on the pass-through of retail bank rates in the euro area. Additionally the credit view is expanded to include data from the euro area, the UK and the US. The application on the subprime crisis has been extended to include the policy of quantitative easing by the Bank of England.

Chapters 24–25 Money and inflation and Rational expectations: implications for policy

Chapter 24 has been rewritten to reflect global, European and UK episodes of inflation and money growth. It starts with an extended section on the empirical relationship between money and inflation in the UK and the euro area. This chapter also includes an application to the UK experience of inflation during the period 1960–2009 and the underlying political economy factors that explain the rise in inflation to 1980. A final application discusses the importance of credibility for the curbing of inflation in the UK. Chapter 25, being largely theoretical, has remained much the same as in the 9th Global edition, with the context focusing on Europe. A relevant application in the European context is the credibility enhancing condition for entry to EMU enshrined in the Maastricht Treaty of 1992. The evidence on inflation in the euro area is examined in the application.

Flexibility

In using previous editions, adopters, reviewers and survey respondents have continually praised this text's flexibility. There are as many ways to teach money, banking and financial markets as there are instructors. To satisfy the diverse needs of instructors, the text achieves flexibility as follows:

- Core chapters provide the basic analysis used throughout the book, and other chapters or sections of chapters can be used or omitted according to instructor preferences. For example, Chapter 2 introduces the financial system and basic concepts such as transaction costs, adverse selection and moral hazard. After covering Chapter 2, the instructor may decide to give more detailed coverage of financial structure by assigning Chapter 8, or may choose to skip Chapter 8 and take any of a number of different paths through the book.

- The text also allows instructors to cover the most important issues in monetary theory and policy without having to use the *ISLM* model in Chapters 20 and 21, while more complete treatments of monetary theory make use of the *ISLM* chapters.
- The internationalization of the text through marked international sections within chapters, as well as through complete separate chapters on the foreign exchange market and the international monetary system, is comprehensive yet flexible. Although many instructors will teach all the international material, others will not. Instructors who want less emphasis on international topics can easily skip Chapter 17 on the foreign exchange market and Chapter 18 on the international financial system and monetary policy. The international sections within chapters are self-contained and can be omitted with little loss of continuity.

To illustrate how this book can be used for courses with varying emphases, several course outlines are suggested for a semester teaching schedule. More detailed information about how the text can be used flexibly in your course is available in the Instructor's Manual.

- *General money and banking course:* Chapters 1–5, 10–13, 15, 16, 22, 24, with a choice of 6 of the remaining 12 chapters.
- *General money and banking course with an international emphasis:* Chapters 1–5, 10–13, 15–18, 22, 24 with a choice of 4 of the remaining 10 chapters.
- *Financial markets and institutions course:* Chapters 1–12, with a choice of 7 of the remaining 13 chapters.
- *Monetary theory and policy course:* Chapters 1–5, 13–16, 19, 22–25, with a choice of 5 of the remaining 11 chapters.

Pedagogical aids

In teaching theory or its applications, a textbook must be a solid motivational tool. To this end, we have incorporated a wide variety of pedagogical features to make the material easy to learn:

- **Previews** at the beginning of each chapter tell students where the chapter is heading, why specific topics are important, and how they relate to other topics in the book.
- **Applications**, numbering around 50, demonstrate how the analysis in the book can be used to explain many important real-world situations.
- **'Following the financial news'** boxes introduce students to relevant news articles and data that are reported daily in the press and explain how to read them.
- **Global** boxes include interesting material with an international focus.
- **'Closer look'** boxes highlight dramatic historical episodes, interesting ideas and intriguing facts related to the subject matter.
- **Summary tables** provide a useful study aid in reviewing material.
- **Key statements** are important points set in boldface italic type so that students can easily find them for later reference.
- **Graphs** with captions, numbering more than 150, help students clearly understand the interrelationship of the variables plotted and the principles of analysis.
- **Summary** at the end of each chapter lists the main points covered.
- **Key terms** are important words or phrases, boldface when they are defined for the first time and listed by page number at the end of the chapter.

- **End-of-chapter questions and problems**, numbering more than 400, help students learn the subject matter by applying economic concepts, including a special class of problems that students find particularly relevant, under the heading 'Using economic analysis to predict the future'.
- **Web exercises** encourage students to collect information from online sources or use online resources to enhance their learning experience.
- **Web sources** report the Web URL source of the data used to create the many tables and charts.
- **Useful websites** point the student to websites that provide information or data that supplement the text material.
- **Glossary** at the back of the book provides definitions of all the key terms.

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Professor Mishkin's research focuses on monetary policy and its impact on financial markets and the aggregate economy. He is the author of more than 15 books, including *Financial Markets and Institutions*, sixth edition (Addison-Wesley, 2009); *Monetary Policy Strategy*, (MIT Press, 2007) *The Next Great Globalization: How Disadvantaged Nations Can Harness Their Financial Systems to Get Rich* (Princeton University Press, 2006); *Inflation Targeting: Lessons from the International Experience* (Princeton University Press, 1999); *Money, Interest Rates, and Inflation* (Edward Elgar, 1993); and *A Rational Expectations Approach to Macroeconometrics: Testing Policy Ineffectiveness and Efficient Markets Models* (University of Chicago Press, 1983). In addition, he has published more than 150 articles in such journals as *American Economic Review*, *Journal of Political Economy*, *Econometrica*, *Quarterly Journal of Economics*, *Journal of Finance*, and *Journal of Monetary Economics*.

Professor Mishkin has served on the editorial board of *American Economic Review* and has been an associate editor at *Journal of Business and Economic Statistics*, the *Journal of Applied Econometrics*, and *Journal of Money, Credit and Banking*; he also served as the editor of the Federal Reserve Bank of New York's Economic Policy Review. He is currently an associate editor (member of the editorial board) at six academic journals, including *Macroeconomics and Monetary Economics Abstracts*; *Journal of International Money and Finance; International Finance; Finance India; Economic Policy Review; and Emerging Markets, Finance and Trade.* He has been a consultant to the Board of Governors of the Federal Reserve System, the World Bank, and the International Monetary Fund, as well as to many central banks throughout the world. He was also a member of the International Advisory Board to the Financial Supervisory Service of South Korea and an advisor to the Institute for Monetary and Economic Research at the Bank of Korea. Professor Mishkin was a Senior Fellow at the Federal Deposit Insurance Corporation's Center for Banking Research and was an academic consultant to and served on the Economic Advisory Panel of the Federal Reserve Bank of New York.

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GUIDED TOUR

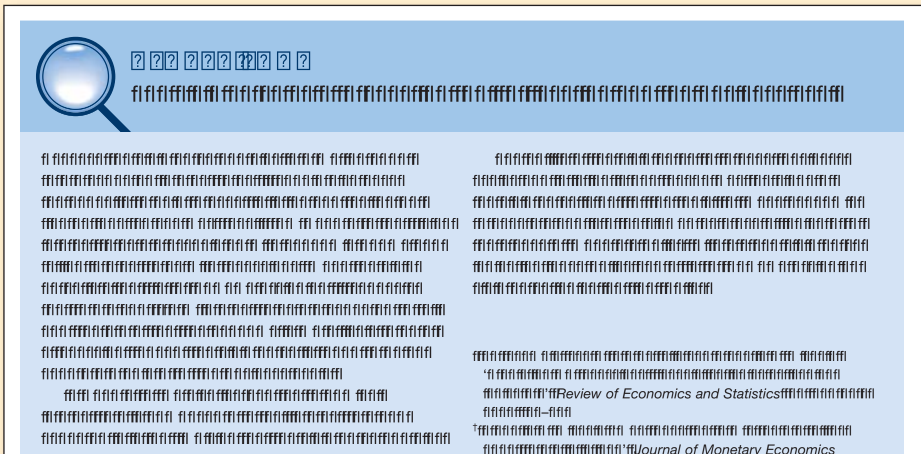
PREVIEW

On the evening TV news you see images of people carrying cardboard boxes leaving a glass-plated building in the City of London. The scene cuts to a trading screen on the London Stock Exchange flashing red numbers and the TV commentary says something about the collapse of a major US bank. You have just heard that the Bank of England is to cut the base rate once again and stock markets in Frankfurt and Paris have shown falls in share prices. Why should financial events in New York have any implications for the stock market in London, Frankfurt or Paris? What effect might the cut in the base rate have on mortgage payments? Will the global collapse of stock markets make it easier or harder for you to get a job next year?

Previews at the beginning of each chapter tell you what topics to expect, why they are important, and how they relate to other topics in the book.

Key terms are important words or phrases, emboldened when they are defined for the first time, and listed by page number at the end of the chapter.

Fiscal policy involves decisions about government spending and taxation. A **budget deficit** is the excess of government expenditures over tax revenues for a particular time period, typically a year, while a **budget surplus** arises when tax revenues exceed government expenditures. The government must finance any deficit by borrowing, which leads to a higher government debt burden while a budget surplus leads to a lower government debt burden. Figure 1.8 shows the budget deficit for the euro economies relative to the size of its economy (as calculated by the **gross domestic product**, or GDP,



'Closer look' boxes encourage you to explore the subject further to deepen your understanding.

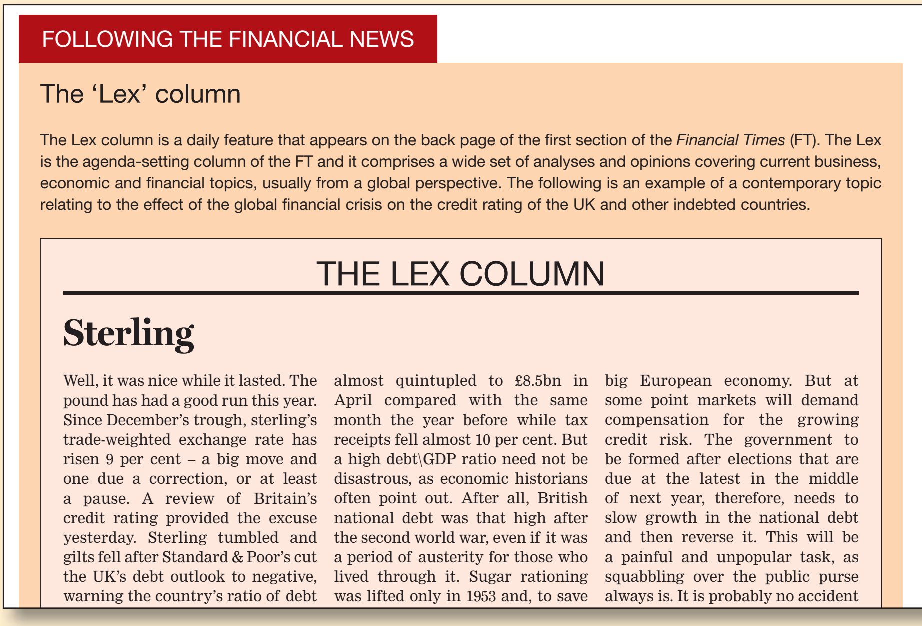
Applications demonstrate how the analysis can be used to explain many important real-world situations.

APPLICATION Interpreting yield curves, 1981–2011

Figure 6.8 illustrates several yield curves that have appeared for British government securities in recent years. What do these yield curves tell us about the public's expectations of future movements of short-term interest rates?

The steep inverted yield curve that occurred on 30 September 1981, indicated that short-term interest rates were expected to decline sharply in the future. For longer-term interest rates with their positive liquidity premium to be well below the short-term interest rate, short-term interest rates must be expected to decline so sharply that their average is far below the current short-term rate. Indeed, the public's expectations of sharply lower short-term interest rates evident in the yield curve were realized soon after September; by November, three-month Treasury bill rates had declined from 15.1% to 13.8% and by February 1982 they had fallen to 12.5%.

The steep upward-sloping yield curves on 28 February 1993 and 30 April 2011 indicated that short-term interest rates would climb in the future. The long-term interest rate is higher than the short-term interest rate when short-term interest rates are expected to rise because their average plus the liquidity premium will be higher than the current short-term rate. The moderately upward-sloping yield curves on 30 November 1996 indicated that short-term



FOLLOWING THE FINANCIAL NEWS

The 'Lex' column

The Lex column is a daily feature that appears on the back page of the first section of the *Financial Times* (FT). The Lex is the agenda-setting column of the FT and it comprises a wide set of analyses and opinions covering current business, economic and financial topics, usually from a global perspective. The following is an example of a contemporary topic relating to the effect of the global financial crisis on the credit rating of the UK and other indebted countries.

THE LEX COLUMN

Sterling

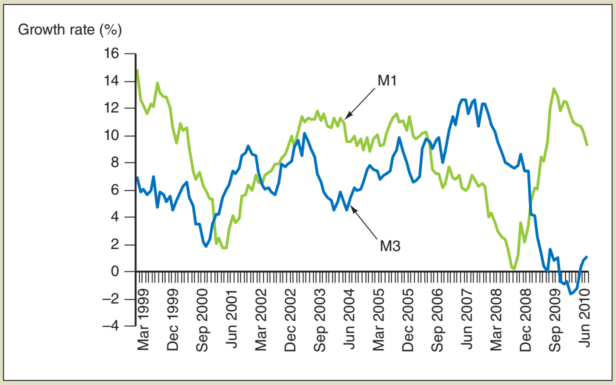
Well, it was nice while it lasted. The pound has had a good run this year. Since December's trough, sterling's trade-weighted exchange rate has risen 9 per cent – a big move and one due a correction, or at least a pause. A review of Britain's credit rating provided the excuse yesterday. Sterling tumbled and gilts fell after Standard & Poor's cut the UK's debt outlook to negative, warning the country's ratio of debt almost quintupled to £8.5bn in April compared with the same month the year before while tax receipts fell almost 10 per cent. But a high debt\GDP ratio need not be disastrous, as economic historians often point out. After all, British national debt was that high after the second world war, even if it was a period of austerity for those who lived through it. Sugar rationing was lifted only in 1953 and, to save big European economy. But at some point markets will demand compensation for the growing credit risk. The government to be formed after elections that are due at the latest in the middle of next year, therefore, needs to slow growth in the national debt and then reverse it. This will be a painful and unpopular task, as squabbling over the public purse always is. It is probably no accident

'Following the financial news' boxes introduce relevant news articles and data that are reported daily in the press and explain how to read them.

'Inside the Federal Reserve' boxes provide an insight into what is important in the operation and structure of the Federal Reserve system.

'Global' boxes offer an international focus.

FIGURE 3.1



Growth rates of the ECB M1 and M3 monetary aggregates 1999–2010

Sources: ECB. 'Money, banking and investment funds', *Monetary Statistics*, p. S12. Copyright © European Central Bank, Frankfurt am Main, Germany. Figures are available free of charge via the ECB website.

ECB, which is to maintain inflation below 2%. Yet this was a temporary and necessary policy needed to solve the more serious problem of a deep recession.

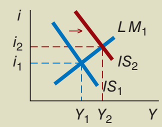
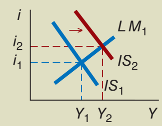
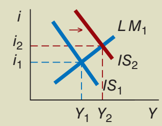
Hence, from all the above you can see that obtaining a single precise, correct measure of

Figures and graphs help you clearly understand the principles of the analysis.

Summary tables provide a useful study aid to review material.

SUMMARY TABLE 21.1

Effects from factors that shift the *IS* and *LM* curves

Factors	Autonomous change in factor	Response	Reason	
Consumer expenditure, C	↑	Y↑, i↑	C↑ ⇒ Y^{ad}↑ ⇒ *IS* shifts right	
Investment, I	↑	Y↑, i↑	I↑ ⇒ Y^{ad}↑ ⇒ *IS* shifts right	
Government spending, G	↑	Y↑, i↑	G↑ ⇒ Y^{ad}↑ ⇒ *IS* shifts right	

Summary

1. To economists, the word *money* has a different meaning from *income* or *wealth*. Money is anything that is generally accepted as payment for goods or services or in the repayment of debts.
2. Money serves three primary functions: as a medium of exchange, as a unit of account and as a store of value. Money as a medium of exchange avoids the problem of double coincidence of wants that arises in a barter economy, and thus lowers transaction costs and encourages specialization and the division of labour. Money as a unit of account reduces the number of prices needed in the economy, which also reduces transaction costs. Money also functions as a store of value, but performs this role poorly if it is rapidly losing value due to inflation.
3. The payments system has evolved over time. Until still further. We are currently moving toward an electronic payments system in which paper is eliminated and all transactions are handled by computers. Despite the potential efficiency of such a system, obstacles are slowing the movement to the cashless society and the development of new forms of electronic money.
4. There is no uniform definition of monetary aggregates, but in general monetary aggregates range from narrow to broad definitions. Since monetary aggregates do not usually move together, they cannot be used interchangeably by policymakers. It is imperative to measure different monetary aggregates so that the central bank can intervene if any of the components change.
5. Another problem in the measurement of money is that

'Summary' at the end of each chapter lists the main points covered.

'Questions and problems' sections enable you to test your understanding and practise your knowledge by applying economic concepts.

QUESTIONS AND PROBLEMS

All questions and problems are available in MyEconLab at **www.myeconlab.com/mishkin**.

1 Explain why you would be more or less willing to buy a share of Microsoft stock in the following situations:

(a) Your wealth falls.
(b) You expect the stock to appreciate in value.
(c) The bond market becomes more liquid.
(d) You expect gold to appreciate in value.
(e) Prices in the bond market become more volatile.

2 Explain why you would be more or less willing to buy a house under the following circumstances:

(a) You just inherited €100,000.
(b) Real estate commissions fall from 6% of the sales price to 5% of the sales price.
(c) You expect Microsoft stock to double in value next year.
(d) Prices in the stock market become more volatile.
(e) You expect housing prices to fall.

3 Explain why you would be more or less willing to buy gold under the following circumstances:

7 Using both the liquidity preference framework and the supply and demand for bonds framework, show why interest rates are procyclical (rising when the economy is expanding and falling during recessions).

8 Why should a rise in the price level (but not in expected inflation) cause interest rates to rise when the nominal money supply is fixed?

9 Go to **www.ft.com** and click on 'Capital Markets' in markets. Examine the statements made on the online articles, and draw the appropriate supply and demand diagrams that support these statements.

10 What effect will a sudden increase in the volatility of gold prices have on interest rates?

11 How might a sudden increase in people's expectations of future real estate prices affect interest rates?

12 Explain what effect a large government deficit might have on interest rates.

'Web exercises' prompt you to use online resources to enhance your learning.

WEB EXERCISES

1 This chapter discusses how an understanding of adverse selection and moral hazard can help us better understand financial crises. The greatest financial crisis faced by the United States was the Great Depression of 1929–33. Go to **www.amatecon.com/greatdepression.html**. This site contains a brief discussion of the factors that led to the Great Depression. Write a one-page summary explaining how adverse selection and moral hazard contributed to the Great Depression.

2 Go to the International Monetary Fund's Financial Crisis page at **www.imf.org/external/np/exr/key/finstab.htm**fi Report on the most recent three countries that the IMF has given emergency loans to in response to a financial crisis. According to the IMF, what caused the crisis in each country?

3 One of the countries hardest hit by the global financial crisis of 2008 was Iceland. Go to **assets.opencrs.com/rpts/RS22988_20081120.pdf** and summarize the causes and events that led to the crisis in Iceland.

'Useful websites' point you to websites that provide information or data that support the text material.

Useful websites

www.amatecon.com/gd/gdtimeline.html A time line of the Great Depression.

www.imf.org The International Monetary Fund is an organization of 185 countries that works on global policy coordination (both monetary and trade),stable and sustainable economic prosperity, and the reduction of poverty.

www.publicpolicy.umd.edu/news/Reinhart%20paper.pdf Paper by Carmen Reinhart and Kenneth Rogoff comparing the 2007 subprime crisis to other international crises.

www.earth.columbia.edu/sitefiles/File/about/director/pubs/paper27.pdf Non-technical paper by Steven Radelet and Jeffrey Sachs on the causes of the East Asian financial crisis.

assets.opencrs.com/rpts/RS22988_20081120.pdf The Congressional Research Service (CRS) report to congress about Iceland's financial crisis of 2008.

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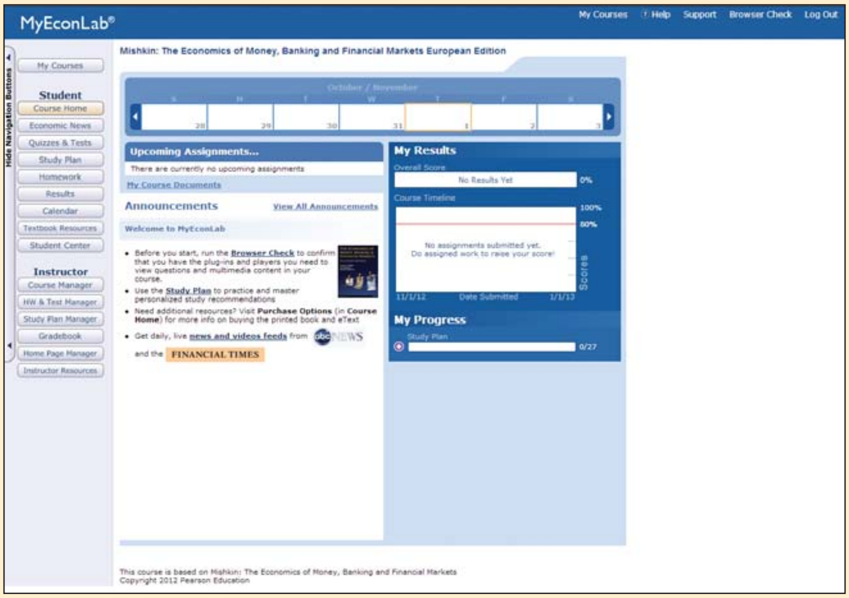
How do I use MyEconLab?

The **Course Home page** is where you can view announcements from your instructor and see an overview of your personal progress.

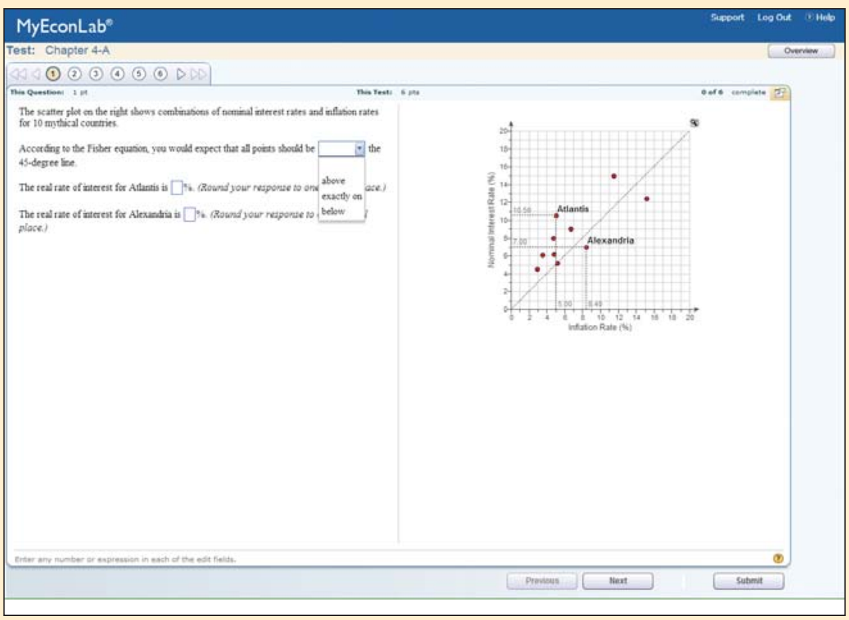
View the **Calendar** to see the dates for online homework, quizzes and tests that your instructor has set for you.

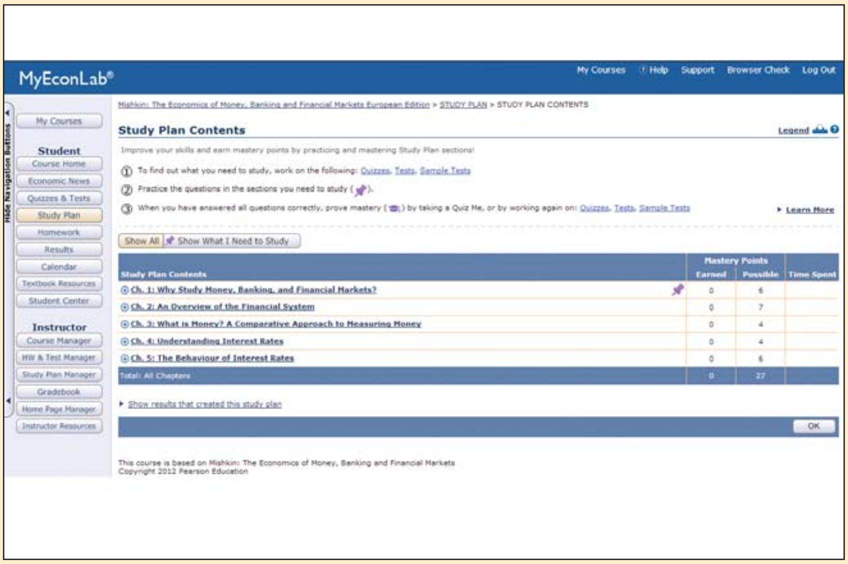
Your lecturer may have chosen **MyEconLab** to provide online homework, quizzes and texts. Check here to access the homework that has been set for you.



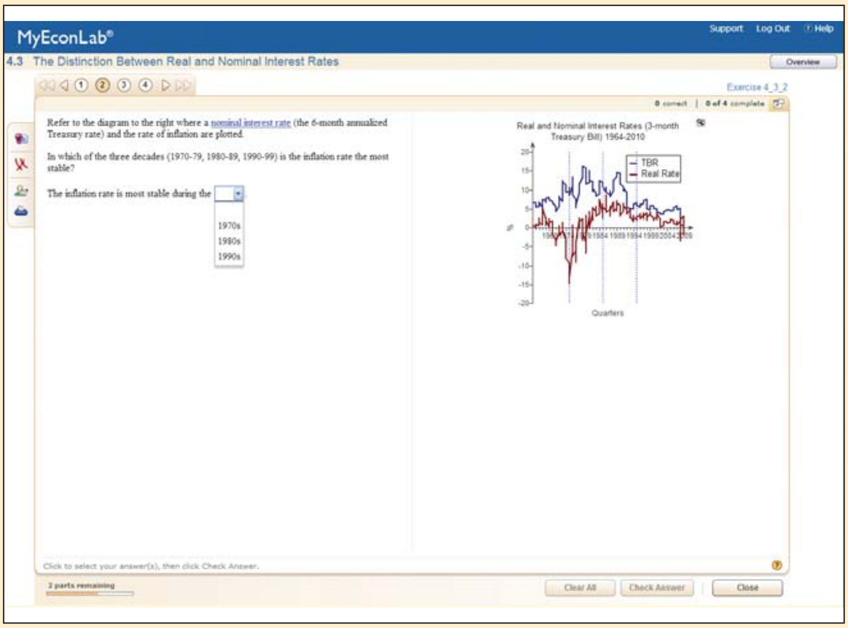
Practice tests for each chapter of the textbook enable you to check your understanding and identify the areas in which you need to do further work. Lecturers can customise and assign the practice tests or students can complete the tests on their own.

Keep track of your results in your own gradebook.





Work through the questions in your personalised **Study Plan** at your own pace. Because the Study Plan is tailored to each student, you will be able to study more efficiently by only reviewing areas where you still need practice. The Study Plan also saves your results, helping you see at a glance exactly which topics you need to review.



Additional instruction is provided in the form of detailed, step-by-step solutions to worked exercises. The figures in many of the exercises in **MyEconLab** are generated algorithmically, containing different values each time they are used. This means that you can practise individual concepts as often as you like.

There is also a link to the **eText** from every question in the Study Plan, so you can easily review and master the content.

View supporting multimedia resources such as links to the eText and **Glossary Flashcards**.

Lecturer training and support

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