

The background of the book cover is an abstract composition of various colored spheres and circles. A large red sphere is in the top left, a large green sphere is in the top right, and a large blue sphere is in the bottom center. Other smaller spheres in purple, yellow, and black are scattered around. Dark, soft shadows are cast by the spheres onto the light-colored background.

TENTH EDITION

economics

**David Begg, Gianluigi Vernasca,
Stanley Fischer, Rudiger Dornbusch**

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David Begg, Gianluigi Vernasca, Stanley Fischer and Rudiger Dornbusch

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TENTH EDITION

economics

**David Begg, Gianluigi Vernasca,
Stanley Fischer, Rudiger Dornbusch**

Dedication

For Honora, Mary and Robin – DB

To my family and to my beloved Vitalba – GV

201	Index
689	Glossary
683	Appendix: Market in equilibrium
659	26 Exchange rate regimes
633	28 International trade
170	PART FIVE The world economy
613	27 Business cycles
413	26 Economic growth
151	25 Open economy macroeconomics
371	24 Exchange rates and the balance of payments
349	23 Unemployment
323	22 Inflation, expenditure and credibility
480	21 Aggregate supply, prices and adjustment to shocks
463	20 Monetary and fiscal policy
3	19 Interest rates and monetary transmission
430	18 Money and banking
398	17 Fiscal policy and foreign trade
381	16 Output and aggregate demand
359	15 Introduction to macroeconomics
xxviii	PART FOUR Microeconomics
xxv	14 Government spending and revenue
xxix	13 Welfare economics
xxii	PART THREE Welfare economics



Preface

Economics is much too interesting to be left to professional economists. It affects almost everything we do, not merely at work or at the shops but also in the home and the voting booth. It influences how well we look after our planet, the future we leave for our children, the extent to which we can care for the poor and the disadvantaged, and the resources we have for enjoying ourselves.

These issues are discussed daily, in bars and on buses as well as in cabinet meetings and boardrooms. The formal study of economics is exciting because it introduces a toolkit that allows a better understanding of the problems we face. Everyone knows a smoky engine is a bad sign, but sometimes only a trained mechanic can give the right advice on how to fix it.

This book is designed to teach you the toolkit and give you practice in using it. Nobody carries an enormous toolbox very far. Useful toolkits are small enough to be portable but contain enough proven tools to deal with both routine problems and unforeseen circumstances. With practice, you will be surprised at how much light this analysis can shed on daily living. This book is designed to make economics seem as useful as it really is.

How much do economists disagree?

There is an old complaint that economists never agree about anything. This is simply wrong. The media, taxi-drivers and politicians love to talk about topics on which there is disagreement; it would be boring TV if all participants in a panel discussion held identical views. But economics is not a subject in which there is always an argument for everything. There are answers to many questions.

We aim to show where economists agree – on what and for what reason – and why they sometimes disagree.

Economics in the twenty-first century

Our aim is to allow students to understand today's economic environment. This requires mastering the theory and practising its application. Just as the theory of genetics or of information technology is slowly progressing, so the theory of economics continues to make progress, sometimes in dramatic and exciting ways. Sometimes this is prompted by theoretical reasoning, sometimes it is a response to a dramatic new event, such as the banking crash and subsequent financial meltdown around the world.

We believe in introducing students immediately to the latest ideas in economics. If these can be conveyed simply, why force students to use older approaches that work less well? Two recent developments in economics underlie much of what we do. One is the role of information, the other is globalization.

How information is transmitted and manipulated is central to many issues in incentives and competition, including the recent booming e-commerce. Ease of information, coupled with lower transport costs, also explains trends towards globalization, and associated reductions in national sovereignty, especially in smaller countries. Modern economics helps us make sense of our changing world, think about where it may go next, and evaluate choices that we currently face.

Preface

Changes to the tenth edition

After 25 years at the top, we wanted to ensure that the book remains as relevant for the next 25 years as it has been in the past. Those familiar with previous editions will continue to recognize the underlying structure and approach, a window on the latest thinking about our evolving world and the way in which economics can make sense of it.

The most important change to the tenth edition is the addition of a new co-author, Gianluigi Vernasca, an expert in microeconomics who teaches at the University of Essex. By expanding the writing team, we have been able to undertake a comprehensive updating of the entire book.

The tenth edition has been thoroughly revised like no other edition. Over 40 reviews and two detailed surveys were commissioned over the writing period, each giving useful feedback on how we could better cater for students and lecturers. All this market feedback helped us constantly assess what we were writing, how it could be improved and how it could be best presented. More material has been added to some chapters while others have been deleted almost entirely. A lot has changed in the last three years and it is all reflected in the text. Specific changes to the new edition include:

- A more detailed analysis of welfare assessment of market outcomes, starting from the concepts of consumer and producer surplus.
- A substantial revision of the analysis of consumer choice and demand decisions.
- A comprehensive analysis of the financial crash – its causes, consequences, and possible policy responses, from fiscal stimulus to quantitative easing.
- An updated and expanded assessment of the risks of debt deflation.
- Full updates throughout to include 2009/2010 data in graphs and tables.
- 141 contemporary example boxes, over 80 of which are new, which illustrate key ideas with relevance to the real world.
- Important new pedagogical features, including topical new case studies, boxes on economic concepts and activity applications, and optional maths boxes for the technically minded.
- A revised and larger set of graded review questions, to create flexibility in the level and pace at which you learn and apply economic principles.
- More electronic resources for both students and lecturers.

With all this change, the book's structure is a bit different from the last edition and there are now only 29 chapters instead of 36. The main changes are listed below:

- Chapter 11 (Different types of labour) from the ninth edition has been merged with Chapter 10 (The labour market) to provide one robust chapter covering all the key issues.
- Part Three (Welfare economics) from the ninth edition has been restructured. The four chapters have been reduced to two and the remaining material added to Part Two. Material on natural monopoly and regulation has been placed in Chapter 8 while coverage of competition policy is now in Chapter 9.

- Research showed Chapter 32 (Macroeconomics: taking stock) from the ninth edition was not widely used so it has been removed from the book. For those who found the material beneficial, it is still available on the Online Learning Centre (OLC).
- Part Five (The world economy) has been restructured and made more concise. The four chapters from the ninth edition are now two in this edition.

Learning by doing

Few people practise for a driving test just by reading a book. Even when you think you understand how to do a hill start, it takes a lot of practice to master the finer points. In the same way, we give you lots of examples and real-world applications not just to emphasize the relevance of economics but also to help you master it for yourself. We start at square one and take you slowly through the tools of theoretical reasoning and how to apply them. We use algebra and equations sparingly, more often than not in separate boxes so they can be skipped or used depending on how technically minded you are. The best ideas are simple and robust, and can usually be explained quite easily.

How to study

Don't just read about economics, try to do it! It is easy, but mistaken, to read on cruise control, highlighting the odd sentence and gliding through paragraphs we have worked hard to simplify. Active learning needs to be interactive. When the text says 'clearly', ask yourself 'why' is it clear? See if you can construct the diagram before you look at it. As soon as you don't follow something, go back and read it again. Try to think of other examples to which the theory could be applied. The only way to check you really understand things is to test yourself. There are opportunities to do this in the book through activity questions and review questions, as well as multiple-choice quizzes on the OLC.

To assist you in working through this text, we have developed a number of distinctive study and design features. To familiarize yourself with these features, please turn to the Guided Tour on pages xvi–xviii.

Supplementary resources

Economics tenth edition offers a comprehensive package of resources for the teaching and learning of economics. The resources offered with the new edition have been developed in response to feedback from current users in order to provide lecturers with a variety of teaching resources for class teaching, lectures and assessment. Students are also offered a range of extra materials to assist in learning, revising and applying the principles of economics.

Connect

Connect Economics is McGraw-Hill's new web-based assignment and assessment platform. It gives lecturers and tutors the power to create assignments, tests and quizzes online. Easily accessible grade reports allow you to track your students' progress. Students get feedback on each individual question and immediate grading which makes it the perfect platform to test your knowledge.

Online Learning Centre

An accompanying Online Learning Centre website has been developed to provide an unrivalled package of flexible, high quality resources for both lecturer and student. To access all of the free Online Learning Centre resources and to find out about enhanced options, simply visit the website at www.mcgraw-hill.co.uk/textbooks/begg.

To learn more about the resources available to lecturers and students online, go to our tour of the resources on pages xxviii–xxxi (Additional technology to enhance learning and teaching).

Guided tour

In addition to illustrating pertinent concepts and presenting up-to-date coverage, *Economics, 10th edition* strives to present the material in a way that makes it coherent and easy to understand. To meet the varied needs of its intended audience, *Economics, 10th edition* is rich in valuable learning tools and support:

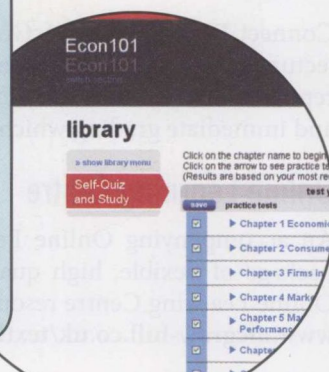
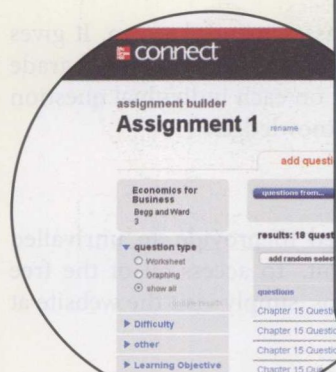
Practice and Testing

Review questions

EASY

- 1 Why do people usually save a 'once-off' sum of money?
- 2 For each of these shocks, say whether the direction: (a) an expected future fiscal policy change; (b) an increase in the money demand caused by higher interest rates.
- 3 A small country that has adopted the euro has a balance of payments surplus. Draw the LM schedule relative to the rest of the world. Would this schedule ever shift?
- 4 Suppose the European Central Bank has a target for the growth rate of the money stock. If the money stock grows faster than the target, draw the LM schedule relative to the rest of the world.
- 5 Suppose a government lived for two periods. It has a budget deficit in period 1 and a budget surplus in period 2. Draw the LM schedule relative to the rest of the world.

Review questions encourage you to apply the knowledge you have acquired from each chapter. **The questions are graded by difficulty**, allowing you to stretch yourself further once you have mastered the topic at a basic level. These questions are **all integrated into Connect**, through which your lecturer can set homework assignments. A **Self-Quiz and Study** tool is also available which provides questions to assess your knowledge and then recommends specific readings, supplementary materials, and additional practice work.



Application

It is possible to attain a higher level of utility if the flatter indifference curve applies.

CASE
10.1

Boosting UK labour

New Labour's labour market policies are based on Making Work Pay. Both were based on new opportunities: work is a ladder allowing people to move up the UK labour supply?

Welfare to Work had two elements: more help in finding work. The budget line in diagram (a) shows lower benefits for those out of work, and the rise from welfare to work helps. In diagram (a) we show the choice of some people.

Making Work Pay dealt with the part of the budget line that was below the welfare to work line. Tax Credit gave money to workers with children under 16 hours a week. Diagram (b) shows the discontinuity at 16 hours. A person who would not work facing CAD (a) or GJKM. Or so the government hoped!

CONCEPT
9.1

It's not what it looks like

An investor seeking to hold assets in the US market there were 8307 US mutual funds in 1980. They have been growing robustly over time: while there were 3100 by 1990, and almost tripled to 8307 by 2000, the US is a market with many firms, most of which have reasonably free entry. Is the market for mutual funds competitive?

The answer appears to be no. The fees that investors pay differ even for mutual funds that are almost identical for goods that are almost homogeneous. The performance of the funds, that can affect investor choice, is an element in investor choice. Funds can have different fees, clearly, investors prefer less tax exposure.

All those facts can explain why product differentiation is some sort of product differentiation.

Each chapter includes a number of **boxed examples**. These aim to show how a particular economic example can be applied in practice. They are listed, and explained in more detail, on pages xix–xxiv. Connect also provides helpful tools to relate what is learnt in the book to real life. Captain Consumer (below) explains all about consumer choice in one of the many **videos** available.

ACTIVITY
17.1

Fiscal stability and

As Chancellor of the Exchequer, Gordon Brown introduced control of interest rates but also introduced the Code for Fiscal Stability.

The Code for Fiscal Stability committed the government to controlling government spending out of current revenues.

Borrowing-financed deficits are allowed only to finance investment for itself by raising future output and hence future tax revenues. The actual deficit fluctuates with output over the business cycle. The 'golden rule' means that government debt accumulation (investment) should be accompanied by higher output.

Because tax revenues fall when the economy is in a recession, about whether the emergence of a tax revenue deficit is whether it is the start of an adverse trend.

Having begun with a tight fiscal policy, the government's spending especially on the National Health Service should be afforded and whether it is the start of an adverse trend.



Guided tour

Aiding Understanding

Learning Outcomes

By the end of this chapter, you should understand:

- 1 perfect competition
- 2 why a perfectly competitive firm equates marginal revenue with marginal cost
- 3 how profits and losses lead to entry and exit decisions
- 4 the industry supply curve
- 5 comparative static analysis of a competitive market
- 6 pure monopoly
- 7 why a monopolist's output equates marginal revenue with marginal cost
- 8 how output compares under monopoly and perfect competition
- 9 how price discrimination affects monopoly output and price

Flexible inflation targeting commits a central bank to hit inflation targets in the medium run, but gives it some discretion about how quickly to hit its inflation target.

The key to successful flexible inflation targeting is that the central bank should be transparent about its target and the policy response. Deviations from target should be temporary. The central bank should raise (lower) interest rates until inflation is restored. If inflation is increased, and there is no rise in inflation.

In contrast, weak central banks that lack credibility will find that people worry that they will not be tough enough to sustain expansion, inflation gets going. This Chapter 22 examines the economics of credibility.

Each chapter offers **extensive pedagogy** to help aid your understanding of the topics being taught. This includes Learning Outcomes, Key Terms, Summaries and extensive Tables and Figures. **Further tools** such as summaries and videos are available in Connect.

Summary

- Government revenues come mainly from taxes on purchases of goods and services. Government spending comprises government purchases of goods and services, transfer payments, and interest on government debt.
- Governments intervene in a market economy. A progressive tax-and-transfer system takes the form of a progressive tax system and a transfer system. The less well off pay lower taxes and receive higher transfers. Although some necessities, notably food and housing, are exempt from taxation, the poor, notably cigarettes and alcohol, pay higher taxes.
- Externalities are cases of market failure. Externalities are cases of market failure that arise when the production or consumption of a good or service affects the welfare of a third party. If it takes account of the externality, the market outcome is efficient. If it does not, the market outcome is inefficient.
- A public good is a good for which the consumption by one individual does not reduce the amount available for other individuals.

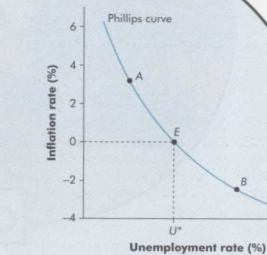


Figure 22.4 The Phillips curve

The balance of payments

Summary
Video

connect

Boxed material

The text offers a wealth of boxed material to help explain how a particular economic principle can be applied in practice. There are four different types of box:

- **Case:** These draw on real-life companies and topical events to help illustrate economics in action.
- **Concept:** These contain content which is slightly more complex and provide some additional, more challenging, topics for you to explore.
- **Activity:** Similar to those in the last edition, these illustrate key economic concepts and then ask you to apply them to the real world. There are questions at the end of each activity and you can find the answers at the back of the book.
- **Maths:** These boxes highlight key mathematical formulae and present them in a digestible format. They can easily be skipped without interrupting the flow of the chapter, if necessary.

The majority of boxes are new to this edition (new material is indicated by a * on the chart below) and most of the others have been updated. With over 140 in total, there is plenty of opportunity to delve deeper into the content of each chapter.

Chapter	Title	Type
1	Most output is service	Case
	The oil price shocks	Case
	Scarcely a hospital bed!	Activity
	Poor Marx for central planners	Case
	Green piece	Case
2	The British Household Panel Survey (BHPS)*	Concept
	Hyperinflation	Concept
	Money illusion*	Concept
	Landing the big job	Activity
	Get a Becker view: use an economist's spectacles	Case
3	Market equilibrium with linear demand and supply*	Maths
	One little piggy went to market	Case
	The demand for mobile voice calls in the UK*	Case
	Movement along a curve vs shifts of the curve	Activity
	Graphical derivation of consumer and producer surplus*	Concept

Boxed material

	Rent ceiling in Sweden*	Case
	More on price controls*	Case
	Anatomy of price and quantity changes	Case
4	Practising calculation of price elasticity of demand (PED) and the arc elasticity of demand*	Maths
	The point elasticity of demand*	Maths
	The price of the iPhone and the elasticity of demand*	Case
	Easy profits	Case
	Car crazy*	Case
	The point elasticity of supply*	Maths
	The effects of a specific tax*	Maths
5	Other contour maps	Concept
	The budget constraint and the budget line*	Maths
	Do consumers really behave as utility-maximizing agents?*	Concept
	Income and substitution effects in practice: the effects of petrol prices on grocery expenditure*	Case
	Are cigarettes inferior goods?*	Case
	Marginal utility and the water–diamond paradox	Concept
6	The anatomy of a crisis: reading the balance sheet of Northern Rock*	Case
	Economic vs accounting profits*	Concept
	Hostile takeovers*	Concept
	Marginal costs in practice: the case of the water industry in the UK*	Case
	Total and marginal revenue with a linear demand*	Maths
7	The short-run production function: the average and marginal product of labour*	Maths
	Short-run cost functions*	Maths
	Marginal conditions and sunk costs	Activity

	Scale economies and the internet	Case
	The long-run production function and the returns to scale*	Maths
	The Rolls-Royce treatment	Case
8	Why do we need to study perfectly competitive markets?*	Concept
	Profit maximization and monopoly power*	Maths
	Monopoly power and competition policy*	Case
	Regulation of natural monopolies*	Concept
9	Facing the music	Case
	It's not what it looks like*	Concept
	Deriving the reaction functions in a Cournot duopoly*	Maths
	Mergers and competition policy*	Concept
	The Stackelberg model*	Maths
	Barriers at the checkout	Case
10	The demand for inputs and profit maximization*	Maths
	Boosting UK labour supply*	Case
	Does immigration hurt native workers?*	Case
	How common is monopsony?	Concept
	Higher education pays off	Case
	Minimum wages hurt jobs, don't they?	Concept
11	The simple algebra of present values and discounting*	Maths
	Factor markets: a summary*	Concept
	The best address	Case
	Income inequality in the UK	Case
12	Why play a losing game? The case of the National Lottery	Case
	Choice under uncertainty: expected utility of income and attitude to risk*	Maths
	Why are CEOs paid so much?*	Case
	Education and signalling*	Concept
	Stock market volatility*	Case
	Beta in action	Activity
	Behavioural finance	Concept
	<i>Britannica</i> shelved	Case

Boxed material

13	General vs partial equilibrium: an example from school policy*	Concept
	Externalities and the London 2012 Olympic Games*	Case
	Internalizing a negative externality using property rights*	Maths
	Stern view of discount rates	Activity
14	The paradox of open source software*	Case
	Do you mind if I smoke? The smoking ban in the UK*	Case
	Using a tax to internalize the negative externality*	Maths
	Hunting the median voter	Activity
15	Emerging markets act as a locomotive for the world economy	Case
	Easily measured but not the whole story*	Concept
	Tax evasion, crime and the mismeasurement of GNP*	Case
	Pollution could make economic growth negative	Activity
16	Exogenous and endogenous variables*	Concept
	The AD schedule: moving along it or shifting it?	Activity
	Investment during the crash of 2009*	Case
	Autonomous demand and equilibrium output*	Maths
	How stable is the saving rate?*	Case
17	Fiscal policy under pressure: lessons from Japan	Case
	Budget effects of demand fluctuations*	Case
	The limits to fiscal policy	Concept
	Fiscal stability and responsibility	Activity
	Equilibrium output revisited*	Maths
18	Barter economy vs monetary economy*	Concept
	A beginner's guide to financial markets	Activity
	The sub-prime crisis and its aftermath*	Case
	The money multiplier	Maths
	The collapse of bank lending*	Concept

19	Structural solutions to prevent a future banking crisis?*	Case
	Quantitative easing*	Concept
	Quantitative easing revisited*	Maths
	Transmission lag*	Activity
	The credit channel of monetary policy	Concept
20	PIGS might fly*	Case
	A modern interpretation of the <i>LM</i> schedule*	Concept
	A horizontal <i>LM</i> schedule	Concept
	The monetary fiscal mix*	Maths
	Monetary or fiscal policy?	Activity
21	Anchors away!	Concept
	Oil prices and UK inflation	Case
	Output gaps 1998–2010	Activity
	A Taylor rule for monetary policy*	Concept
	The formula for the Taylor rule*	Maths
22	The quantity theory of money: $MV = PY$	Concept
	Short-run and long-run Phillips curves*	Maths
	Public enemy number two*	Case
	'Asia's inflation genie leaps out of the bottle'*	Activity
23	Measuring unemployment*	Case
	The lump-of-labour fallacy	Concept
	Did the tax carrot work?	Activity
	How bad could unemployment become?*	Case
	Hysteresis and high unemployment*	Concept
24	Effective exchange rates	Concept
	International flows of financial capital*	Case
	Interest parity conditions*	Maths
	Changes in equilibrium real exchange rates	Activity
25	Sand in the wheels of international capital flows?*	Case
	Sovereignty and monetary union	Concept
	A 30-year look at sterling*	Activity

Boxed material

26	Growth and competition*	Case
	Neoclassical growth theory*	Maths
	Aborted take-offs on the growth runway	Activity
	Does convergence occur in practice?*	Case
27	The cyclical behaviour of wages*	Activity
	The multiplier–accelerator model of cycles*	Maths
	Eurozone business cycles	Case
28	Comparative advantage and the gains from trade	Concept
	Historical gainers and losers from trade*	Case
	The EU Single Market*	Activity
29	The gold standard and capital flows	Concept
	World economy in a cul de sac?*	Case
	Capital controls and the ERM	Case
	Irish deflation*	Activity