



ECONOMICS

TENTH EDITION

JOHN SLOMAN, DEAN GARRATT AND JON GUEST



 Pearson

ECONOMICS



Pearson

At Pearson, we have a simple mission: to help people make more of their lives through learning.

We combine innovative learning technology with trusted content and educational expertise to provide engaging and effective learning experiences that serve people wherever and whenever they are learning.

From classroom to boardroom, our curriculum materials, digital learning tools and testing programmes help to educate millions of people worldwide – more than any other private enterprise.

Every day our work helps learning flourish, and wherever learning flourishes, so do people.

To learn more, please visit us at www.pearson.com/uk

ECONOMICS

Tenth edition

John Sloman

The Economics Network, University of Bristol

Visiting Professor, University of the West of England

Dean Garratt

Nottingham Business School

Jon Guest

Aston Business School

Aston University



Harlow, England • London • New York • Boston • San Francisco • Toronto • Sydney
Dubai • Singapore • Hong Kong • Tokyo • Seoul • Taipei • New Delhi
Cape Town • São Paulo • Mexico City • Madrid • Amsterdam • Munich • Paris • Milan

PEARSON EDUCATION LIMITED

KAO Two
KAO Park
Harlow
CM17 9NA
United Kingdom
Tel: +44 (0)1279 623623
Web: www.pearson.com/uk

First edition published 1991 (print)
Second edition published 1994 (print)
Updated second edition published 1995 (print)
Third edition published 1997 (print)
Updated third edition published 1998 (print)
Fourth edition published 2000 (print)
Fifth edition published 2003 (print)
Sixth edition published 2006 (print)
Seventh edition published 2009 (print)
Eighth edition published 2012 (print and electronic)
Ninth edition 2015 (print and electronic)
Tenth edition 2018 (print and electronic)

© John Sloman 1991 (print)
© John Sloman, Alison Bird and Mark Sutcliffe 1994, 1997 (print)
© John Sloman, Alison Sloman and Mark Sutcliffe 2000, 2003 (print)
© John Sloman 2006 (print)
© John Sloman, Alison Wride 2009 (print)
© John Sloman, Alison Wride and Dean Garratt 2012 (print and electronic)
© John Sloman, Alison Wride and Dean Garratt 2015 (print and electronic)
© John Sloman, Dean Garratt and Jon Guest 2018 (print and electronic)

The rights of John Sloman, Dean Garratt and Jon Guest to be identified as authors of this work have been asserted by them in accordance with the Copyright, Designs and Patents Act 1988.

The print publication is protected by copyright. Prior to any prohibited reproduction, storage in a retrieval system, distribution or transmission in any form or by any means, electronic, mechanical, recording or otherwise, permission should be obtained from the publisher or, where applicable, a licence permitting restricted copying in the United Kingdom should be obtained from the Copyright Licensing Agency Ltd, Barnard's Inn, 86 Fetter Lane, London EC4A 1EN.

The ePublication is protected by copyright and must not be copied, reproduced, transferred, distributed, leased, licensed or publicly performed or used in any way except as specifically permitted in writing by the publishers, as allowed under the terms and conditions under which it was purchased, or as strictly permitted by applicable copyright law. Any unauthorised distribution or use of this text may be a direct infringement of the authors' and the publisher's rights and those responsible may be liable in law accordingly.

All trademarks used herein are the property of their respective owners. The use of any trademark in this text does not vest in the author or publisher any trademark ownership rights in such trademarks, nor does the use of such trademarks imply any affiliation with or endorsement of this book by such owners.

Pearson Education is not responsible for the content of third-party internet sites.

978-1-292-18785-3 (print)
978-1-292-18790-7 (PDF)
978-1-292-18786-0 (ePub)

British Library Cataloguing-in-Publication Data

A catalogue record for the print edition is available from the British Library

Library of Congress Cataloguing-in-Publication Data

Names: Sloman, John, 1947- author. | Garratt, Dean, 1970- author. | Guest, Jon, author.
Title: Economics / John Sloman, The Economics Network, University of Bristol, Visiting Professor, University of the West of England, Dean Garratt, Nottingham Business School, Jon Guest, Aston University.
Description: Tenth Edition. | New York : Pearson, [2017] | Revised edition of Economics, [2015]
Identifiers: LCCN 2017048463 | ISBN 9781292187853 (Print) | ISBN 9781292187907 (PDF) | ISBN 9781292187860 (ePub)
Subjects: LCSH: Economics.
Classification: LCC HB171.5 .S635 2017 | DDC 330--dc23
LC record available at <https://lcn.loc.gov/2017048463>

10 9 8 7 6 5 4 3 2 1
22 21 20 19 18

Front cover images and all Part and Chapter opener images: John Sloman

Typeset in 8/12 pt Stone Serif ITC Pro by SPi Global
Printed in Slovakia by Neografia

NOTE THAT ANY PAGE CROSS REFERENCES REFER TO THE PRINT EDITION

About the Authors



John Sloman is Visiting Fellow at the University of Bristol and Associate of the Economics Network (www.economicsnetwork.ac.uk), a UK-wide organisation, where, until his retirement in 2012, he was Director. The Economics Network is based at the University of Bristol and provides a range of services designed to promote and share good practice

in learning and teaching economics. The Network is supported by grants from the Royal Economic Society, the Scottish Economic Society and university economic departments and units from across the UK.

John is also Visiting Professor at the University of the West of England, Bristol, where, from 1992 to 1999, he was Head of School of Economics. He taught at UWE until 2007.

John has taught a range of courses, including economic principles on Economics, Social Science and Business Studies degrees, development economics, comparative economic systems, intermediate macroeconomics and managerial economics. He has also taught economics on various professional courses.

John is the co-author with Dean Garratt of *Essentials of Economics* (Pearson Education, 7th edition 2016), with Dean Garratt; Elizabeth Jones of the University of Warwick



Dr Dean Garratt is a Principal Lecturer in Economics at Nottingham Business School (NBS) and the Course Leader for MSc Economics, MSc Economics and Investment Banking and MSc International Finance.

Dean teaches economics at a variety of levels, including modules in macroeconomics, applied economics and career development for economists. He is passionate about encouraging students to communicate economics more intuitively, to deepen their interest in economics and to apply economics to a range of issues.

and Jon Guest of *Economics for Business* (Pearson Education, 7th edition 2016); and with Elizabeth Jones of *Essential Economics for Business* (Pearson Education, 5th edition 2017). Translations or editions of the various books are available for a number of different countries with the help of co-authors around the world.

John is very interested in promoting new methods of teaching economics, including group exercises, experiments, role playing, computer-aided learning and the use of audience response systems and podcasting in teaching. He has organised and spoken at conferences for both lecturers and students of economics throughout the UK and in many other countries.

As part of his work with the Economics Network he has contributed to its two sites for students and prospective students of economics: *Studying Economics* (www.studyingeconomics.ac.uk/) and *Why Study Economics?* (<http://whystudyeconomics.ac.uk>).

From March to June 1997, John was a visiting lecturer at the University of Western Australia. In July and August 2000, he was again a visiting lecturer at the University of Western Australia and also at Murdoch University in Perth.

In 2007, John received a Lifetime Achievement Award as ‘outstanding teacher and ambassador of economics’, presented jointly by the Higher Education Academy, the Government Economic Service and the Scottish Economic Society.

Earlier in his career Dean worked as an economic assistant at both HM Treasury and at the Council of Mortgage Lenders. While at these institutions he was researching and briefing on a variety of issues relating to the household sector and to the housing and mortgage markets.

Dean is a Senior Fellow of the Higher Education Academy and an Associate of the Economics Network which aims to promote high-quality teaching practice. He has been involved in several projects promoting a problem-based learning (PBL) approach in the teaching of economics.

In 2006, Dean was awarded the Outstanding Teaching Prize by the Economics Network. The award recognises

exemplary teaching practice that deepens and inspires interest in economics. In 2013, he won the student-nominated Nottingham Business School teacher of the year award.

Dean is an academic assessor for the Government Economic Service (GES) helping to assess candidates at Economic Assessment Centres (EACs). In this role he assesses candidates looking to join the GES, the UK's largest employer of professional economists.



Jon Guest is a Senior Teaching Fellow at Aston Business School and a Teaching Associate at Warwick Business School. He joined Aston University in September 2017 having previously been a Senior Lecturer at Nottingham Business School, a

Principal Teaching Fellow at Warwick Business School and a Senior Lecturer at Coventry University.

Jon has taught on a range of courses including Principles of Microeconomics, Intermediate Microeconomics, Economic Issues and Behavioural Economics. He has also taught economics on various professional courses for the Government Economic Service and HM Treasury.

Jon has worked on developing teaching methods that promote a more active learning environment in the classroom. In particular, he has published journal articles and carried out a number of funded research projects on the impact of games and experiments on student learning. These include an online version of the TV show *Deal or No Deal* and games that involve students acting as buyers and sellers in the classroom. He has recently included a series of short videos on economics topics and implemented elements of the flipped classroom into his teaching. Jon is also interested in innovative ways of providing students with feedback on their work.

Dean runs sessions on HM Treasury's Graduate Development Programme (GDP). These sessions cover principles in policy making, applying economics principles and ideas to analyse policy issues and contemporary developments in macroeconomics.

Outside of work, Dean is an avid watcher of many sports. Having been born in Leicester, he is a season ticket holder at both Leicester City Football Club and Leicestershire County Cricket Club.

Through his work as an Associate of the Economics Network, Jon has run sessions on innovative pedagogic practices at a number of universities and major national events. He is also an academic assessor for the Economics Assessment Centres run by the Government Economic Service. This involves interviewing candidates and evaluating their ability to apply economic reasoning to a range of policy issues. He has also acted as an External Examiner for a number of UK universities.

The quality of his teaching was formally recognised when he became the first Government Economic Service Approved Tutor in 2005 and won the student-nominated award from the Economics Network in the same year. Jon was awarded the prestigious National Teaching Fellowship by the Higher Education Academy in 2011.

Jon is a regular contributor and editor of the *Economic Review* and is a co-author of the 7th edition of the textbook, *Economics for Business*. He has published chapters in books on the economics of sport and regularly writes cases for the 'Sloman in the News' website. He has also published research on the self-evaluation skills of undergraduate students.

Outside of work Jon is a keen runner and has completed the London Marathon. However, he now has to accept that he is slower than both of his teenage sons – Dan and Tom. He is also a long-suffering supporter of Portsmouth Football Club.

Brief Contents

<i>Preface</i>	<i>xv</i>
<i>Student Resources Flowchart</i>	<i>xxi</i>
<i>Lecturer Resources Flowchart</i>	<i>xxii</i>
<i>Acknowledgements</i>	<i>xxiii</i>
<i>Publisher's Acknowledgements</i>	<i>xxiv</i>

Part A INTRODUCTION

Why Economics is Good for You	2
1 Economics and Economies	6

Part B FOUNDATIONS OF MICROECONOMICS

2 Supply and Demand	34
3 Government and the Market	79

Part C MICROECONOMIC THEORY

4 Background to Demand: the Rational Consumer	104
5 Consumer Behaviour in an Uncertain World	128
6 Background to Supply	148
7 Profit Maximising under Perfect Competition and Monopoly	189
8 Profit Maximising under Imperfect Competition	217
9 The Behaviour of Firms	250
10 The Theory of Distribution of Income	277

Part D MICROECONOMIC POLICY

11 Inequality, Poverty and Policies to Redistribute Income	316
12 Markets, Efficiency and the Public Interest	347
13 Environmental Policy	391
14 Government Policy towards Business	421

Part E FOUNDATIONS OF MACROECONOMICS

- | | | |
|----|---|-----|
| 15 | An Introduction to Macroeconomic Issues and Ideas | 444 |
| 16 | The Development of Macroeconomic Thinking: a Historical Perspective | 491 |

Part F MACROECONOMIC MODELS, THEORIES AND POLICY

- | | | |
|----|---|-----|
| 17 | Short-run Macroeconomic Equilibrium | 520 |
| 18 | Banking, Money and Interest Rates | 551 |
| 19 | The Relationship between the Money and Goods Markets | 587 |
| 20 | Aggregate Supply, Inflation and Unemployment | 622 |
| 21 | The Relationship between Inflation, Unemployment and Output | 645 |
| 22 | Fiscal and Monetary Policy | 669 |
| 23 | Long-term Economic Growth and Supply-side Policies | 713 |

Part G THE WORLD ECONOMY

- | | | |
|----|---|------|
| 24 | International Trade | 746 |
| 25 | The Balance of Payments and Exchange Rates | 786 |
| 26 | Economies in an Interdependent World | 823 |
| | Postscript: <i>The Castaways or Vote for Caliban</i> | 862 |
| | <i>Appendix 1: Some Techniques of Economic Analysis</i> | A:1 |
| | <i>Appendix 2: Websites</i> | A:15 |
| | <i>Threshold Concepts and Key Ideas</i> | T:1 |
| | <i>Glossary</i> | G:1 |
| | <i>Index</i> | I:1 |

Contents

<i>Preface</i>	<i>xv</i>	2.4 <i>Advertising and its effect on demand curves</i>	61
<i>Student Resources Flowchart</i>	<i>xxi</i>	2.5 <i>Any more fares?</i>	62
<i>Lecturer Resources Flowchart</i>	<i>xxii</i>	*2.6 <i>Using calculus to calculate the price elasticity of demand</i>	64
<i>Acknowledgements</i>	<i>xxiii</i>	2.7 <i>Short selling</i>	74
<i>Publisher's Acknowledgements</i>	<i>xxiv</i>	2.8 <i>Dealing in futures markets</i>	75

Part A INTRODUCTION

Why Economics is Good for You	2
What is economics?	3
Puzzles and stories	4
Applying the principles	5
1 Economics and Economies	6
1.1 What do economists study?	7
1.2 Different economic systems	18
1.3 The nature of economic reasoning	27
Boxes	
1.1 <i>Looking at macroeconomic data</i>	10
1.2 <i>The opportunity costs of studying</i>	13
1.3 <i>Scarcity and abundance</i>	14
1.4 <i>Command economies</i>	22
1.5 <i>Adam Smith (1723–90)</i>	25
1.6 <i>Ceteris paribus</i>	28

Part B FOUNDATIONS OF MICROECONOMICS

2 Supply and Demand	34
2.1 Demand	35
2.2 Supply	42
2.3 Price and output determination	45
2.4 Elasticity	56
2.5 The time dimension	70
Boxes	
*2.1 <i>The demand for lamb</i>	40
2.2 <i>UK house prices</i>	50
2.3 <i>Stock market prices</i>	54

3 Government and the Market	79
3.1 The control of prices	80
3.2 Indirect taxes and subsidies	88
3.3 Government rejection of market allocation	93
3.4 Agriculture and agricultural policy	95

Boxes

3.1 <i>A minimum unit price for alcohol</i>	83
3.2 <i>The rise in illegal lending</i>	84
3.3 <i>How can ticket touts make so much money?</i>	86
3.4 <i>Ashes to ashes?</i>	90
3.5 <i>The fallacy of composition</i>	97

Part C MICROECONOMIC THEORY

4 Background to Demand: the Rational Consumer	104
--	------------

4.1 Marginal utility theory	105
4.2 The timing of costs and benefits	113
*4.3 Indifference analysis	115

Boxes

*4.1 <i>Using calculus to derive a marginal utility function</i>	107
4.2 <i>The marginal utility revolution: Jevons, Menger, Walras</i>	111
4.3 <i>Taking account of time</i>	112
*4.4 <i>Love and caring</i>	120
*4.5 <i>Consumer theory: a further approach</i>	125

5 Consumer Behaviour in an Uncertain World	128
---	------------

5.1 Demand under conditions of risk and uncertainty	129
5.2 Behavioural economics	136

Boxes					
5.1	<i>Experimental economics</i>	137	8.3	<i>OPEC</i>	226
*5.2	<i>The endowment effect</i>	140	8.4	<i>Buying power</i>	233
*5.3	<i>Modelling present bias</i>	142	8.5	<i>The prisoners' dilemma</i>	237
5.4	<i>Nudging people</i>	144	8.6	<i>What's the train fare to London?</i>	242
5.5	<i>Is economics the study of selfish behaviour?</i>	145	8.7	<i>Peak-load pricing</i>	243
			8.8	<i>Just the ticket?</i>	247
6	Background to Supply	148	9	The Behaviour of Firms	250
6.1	The short-run theory of production	149	9.1	Problems with traditional theory	251
6.2	Costs in the short run	155	9.2	Behavioural economics of the firm	252
6.3	The long-run theory of production	161	9.3	Alternative maximising theories	255
6.4	Costs in the long run	172	9.4	Asymmetric information and the principal-agent problem	265
6.5	Revenue	176	9.5	Multiple aims	268
6.6	Profit maximisation	180	9.6	Pricing in practice	271
Boxes			Boxes		
6.1	<i>Malthus and the dismal science of economics</i>	150	9.1	<i>What do you maximise?</i>	252
6.2	<i>Diminishing returns in the bread shop</i>	153	9.2	<i>How firms increase profits by understanding 'irrational' consumers</i>	254
6.3	<i>The relationship between averages and marginals</i>	154	9.3	<i>When is a theory not a theory?</i>	256
*6.4	<i>The relationship between TPP, MPP and APP</i>	154	9.4	<i>Merger activity</i>	262
6.5	<i>The fallacy of using historic costs</i>	156	9.5	<i>The US sub-prime housing crisis</i>	266
6.6	<i>Are fixed costs always the same as sunk costs?</i>	157	9.6	<i>Stakeholder power?</i>	269
6.7	<i>Cost curves in practice</i>	161	9.7	<i>How do companies set prices?</i>	272
*6.8	<i>The Cobb-Douglas production function</i>	166	10	The Theory of Distribution of Income	277
6.9	<i>Minimum efficient scale</i>	174	10.1	Wage determination under perfect competition	278
*6.10	<i>Using calculus to find the maximum profit output</i>	183	10.2	Wage determination in imperfect markets	287
6.11	<i>The logic of logistics</i>	185	10.3	Capital and profit	300
7	Profit Maximising under Perfect Competition and Monopoly	189	10.4	Land and rent	310
7.1	Alternative market structures	190	Boxes		
7.2	Perfect competition	191	10.1	<i>Labour as a factor of production</i>	279
7.3	Monopoly	201	*10.2	<i>Using indifference curve analysis to derive the individual's supply curve of labour</i>	281
7.4	The theory of contestable markets	211	10.3	<i>Immigration and the UK labour market</i>	282
Boxes			10.4	<i>Life at the mill</i>	288
7.1	<i>Concentration ratios</i>	192	10.5	<i>The rise and decline of the labour movement in the UK</i>	292
7.2	<i>Is perfect best?</i>	193	10.6	<i>How useful is marginal productivity theory?</i>	292
7.3	<i>E-commerce and market structure</i>	198	10.7	<i>The persistent gender pay gap?</i>	294
7.4	<i>Google - a monopoly abusing its market power?</i>	208	10.8	<i>Flexible labour markets and the flexible firm</i>	296
7.5	<i>X inefficiency</i>	208	10.9	<i>Behaviour at work</i>	298
7.6	<i>Cut-throat competition</i>	210	10.10	<i>Stocks and flows</i>	303
7.7	<i>Airline deregulation in the USA and Europe</i>	214	10.11	<i>The economics of non-renewable resources</i>	312
8	Profit Maximising under Imperfect Competition	217			
8.1	Monopolistic competition	218	Part D MICROECONOMIC POLICY		
8.2	Oligopoly	221	11	Inequality, Poverty and Policies to Redistribute Income	316
8.3	Game theory	234	11.1	Inequality and poverty	317
8.4	Price discrimination	241	11.2	Taxes, benefits and the redistribution of income	328
Boxes					
8.1	<i>Selling ice cream as a student</i>	219			
8.2	<i>Increasing concentration</i>	222			

Boxes			
*17.1	<i>Using calculus to derive the MPC</i>	526	
17.2	<i>The household sector balance sheets</i>	528	
17.3	<i>Sentiment and spending</i>	530	
17.4	<i>Deriving the multiplier formula</i>	537	
17.5	<i>Allowing for inflation in the 45° line diagram</i>	542	
17.6	<i>Has there been an accelerator effect in the UK?</i>	546	
18	Banking, Money and Interest Rates	551	
18.1	The meaning and functions of money	552	
18.2	The financial system	553	
18.3	The supply of money	572	
18.4	The demand for money	580	
18.5	Equilibrium	584	
Boxes			
18.1	<i>Money supply, national income and national wealth</i>	552	
18.2	<i>The growth of banks' balance sheets</i>	558	
18.3	<i>The rise of securitisation</i>	562	
18.4	<i>UK and eurozone monetary aggregates</i>	573	
*18.5	<i>Calculating the money multiplier</i>	576	
19	The Relationship between the Money and Goods Markets	587	
19.1	The effects of monetary changes on national income	588	
19.2	The monetary effects of changes in the goods market	600	
19.3	Modelling the interaction of monetary policy and the goods market	604	
19.4	Credit cycles and the goods market	610	
	Appendix: The <i>IS/LM</i> model	615	
Boxes			
19.1	<i>Choosing the exchange rate or the money supply</i>	594	
19.2	<i>Party games and the velocity of money</i>	596	
19.3	<i>The stability of the velocity of circulation</i>	598	
19.4	<i>Crowding out in an open economy</i>	602	
19.5	<i>The financial accelerator and fluctuations in aggregate demand</i>	614	
20	Aggregate Supply, Inflation and Unemployment	622	
20.1	The <i>AD/AS</i> model	623	
20.2	<i>AD/AS</i> and inflation	626	
20.3	Aggregate demand and supply with inflation targeting: The <i>DAD/DAS</i> model	630	
20.4	The labour market and aggregate supply	634	
20.5	<i>AD/AS</i> and macroeconomic controversies	639	
Boxes			
20.1	<i>Short-run aggregate supply</i>	625	
20.2	<i>Cost-push inflation and supply shocks</i>	629	
20.3	<i>Analysing demand-pull and cost-push inflation using the <i>DAD/DAS</i> model</i>	633	
20.4	<i>Common ground between economists?</i>	643	
21	The Relationship between Inflation, Unemployment and Output	645	
21.1	The <i>EAPC</i> and the inflation–unemployment relationship	646	
21.2	Inflation and unemployment: the monetarist perspective	649	
21.3	Inflation and unemployment: the new classical position	652	
21.4	Inflation and unemployment: the modern Keynesian position	656	
21.5	Inflation, unemployment and output: credibility and central banks	660	
Boxes			
*21.1	<i>Basing expectations on the past</i>	647	
21.2	<i>The accelerationist hypothesis</i>	651	
21.3	<i>The rational expectations revolution</i>	653	
21.4	<i>Forecasting the weather</i>	654	
21.5	<i>The boy who cried 'Wolf'</i>	655	
*21.6	<i>Inflation bias</i>	662	
21.7	<i>Inflation targeting</i>	664	
21.8	<i>Inflation shocks and central banks</i>	666	
22	Fiscal and Monetary Policy	669	
22.1	Fiscal policy and the public finances	670	
22.2	The use of fiscal policy	676	
22.3	Monetary policy	686	
22.4	The policy-making environment	704	
22.5	Central banks, economic shocks and the macroeconomy: an integrated model	707	
Boxes			
22.1	<i>Primary surpluses and sustainable debt</i>	675	
22.2	<i>The financial crisis and the UK fiscal policy yo-yo</i>	680	
22.3	<i>Riding a switchback</i>	683	
22.4	<i>The evolving fiscal framework in the European Union</i>	684	
22.5	<i>The operation of monetary policy in the UK</i>	690	
22.6	<i>Central banking and monetary policy in the USA</i>	692	
22.7	<i>Monetary policy in the eurozone</i>	696	
22.8	<i>Goodhart's law</i>	700	
22.9	<i>Using interest rates to control both aggregate demand and the exchange rate</i>	701	
22.10	<i>Quantitative easing</i>	702	
23	Long-term Economic Growth and Supply-side Policies	713	
23.1	Introduction to long-term economic growth	714	
23.2	Economic growth without technological progress	718	

23.3	Economic growth with technological progress	723	25.3	Free-floating exchange rates	802
23.4	Approaches to supply-side policy	729	25.4	Exchange rate systems in practice	810
23.5	Supply-side policies in practice: market-orientated policies	732		*Appendix: The open economy and ISLM analysis	817
23.6	Supply-side policies in practice: interventionist policies	738			

Boxes

23.1	<i>Getting intensive with capital</i>	720
23.2	<i>Labour productivity</i>	724
23.3	<i>UK human capital</i>	728
23.4	<i>The supply-side revolution in the USA</i>	732
23.5	<i>A new approach to industrial policy</i>	739
23.6	<i>Unemployment and supply-side policies</i>	743

Part G	THE WORLD ECONOMY
---------------	--------------------------

24	International Trade	746	26	Economies in an Interdependent World	823
24.1	The advantages of trade	747	26.1	Globalisation and the problem of instability	824
24.2	Arguments for restricting trade	761	26.2	European economic and monetary union (EMU)	830
24.3	Preferential trading	771	26.3	Global inequality	838
24.4	The European Union	775	26.4	Trade and developing countries	844
24.5	The UK and Brexit	781	26.5	The problem of debt	854
	Boxes			Boxes	
24.1	<i>Trading places</i>	750	26.1	<i>Economic and financial interdependencies: Trade imbalance in the US and China</i>	826
24.2	<i>Sharing out the jobs</i>	753	26.2	<i>Optimal currency areas</i>	834
24.3	<i>Trade as exploitation?</i>	755	26.3	<i>The Human Development Index (HDI)</i>	842
24.4	<i>Free trade and the environment</i>	762	26.4	<i>When driving and alcohol do mix</i>	849
24.5	<i>Strategic trade theory</i>	763	26.5	<i>The evolving comparative advantage of China</i>	852
*24.6	<i>The optimum tariff or export tax</i>	765	26.6	<i>A debt to the planet</i>	856
24.7	<i>Giving trade a bad name</i>	766		Postscript: <i>The Castaways or Vote for Caliban</i>	862
24.8	<i>The Doha development agenda</i>	768		Appendix 1: Some Techniques of Economic Analysis	A:1
24.9	<i>Mutual recognition: the Cassis de Dijon case</i>	777		Appendix 2: Websites	A:15
24.10	<i>Features of the single market</i>	778		Threshold Concepts and Key Ideas	T:1
				Glossary	G:1
25	The Balance of Payments and Exchange Rates	786		Index	I:1
25.1	Alternative exchange rate regimes	787			
25.2	Fixed exchange rates	797			

Supporting Resources

Visit www.pearsoned.co.uk/sloman to find valuable online resources:

MyLab Economics

For students

- Study guide with exercises, quizzes and tests, arranged chapter by chapter
- Multiple-choice questions to test your learning
- Glossary with Flashcards to check your understanding
- Link to Sloman Economics News site
- Online textbook chapters
- Link to additional resources on the companion website (listed below)

For lecturers

- MyLab's gradebook, which automatically tracks student performance and progress
- Extensive test bank, allowing you to generate your own tests, assessments and homework assignment
- Access to a wealth of lecturer resources on the companion website (listed below)

Companion website

For students

- Answers to all in-chapter questions in the book
- Over 200 case studies with questions and activities, organised by chapter
- Over 130 audio animations explaining all the key models used in the book
- Regularly updated and searchable blog, featuring current news items with discussion of the issue, questions and links to articles and data
- Hotlinks to 285 sites relevant to the study of economics
- Maths case studies illustrating the key mathematical concepts used in the book

For lecturers

- Comprehensive range of PowerPoint slides, including figures and tables from the book, as well as animated slide shows for use in lectures, organised chapter by chapter. There are various versions of these slide shows, some including questions that can be used with 'clickers'
- Animated key models in PowerPoint
- Teaching and learning case studies, discussing ways of increasing student engagement and improving student learning
- 20 workshops in Word for use in large or small classes, plus a guide on ways of using the workshops. These can easily be customised to suit lecturers' needs. Answers are given to all the workshop questions.
- Over 200 case studies with questions and student activities (as on student website). Answers to all questions in case studies
- Answers to all questions in the book (end-of-chapter questions, box questions and in-text questions) and to questions in maths case studies

Also: The companion website provides the following features:

- Search tool to help locate specific items of content
- Online help and support to assist with website usage and troubleshooting

For more information please contact your local Pearson Education sales representative or visit www.pearsoned.co.uk/sloman.

Preface

A NOTE TO THE STUDENT FROM THE AUTHORS

Economics affects all our lives. As consumers we try to make the best of our limited incomes. As workers – or future workers – we take our place in the job market. As citizens of a country our lives are affected by the decisions of our government and other policy makers: decisions over taxes, decisions over spending on health and education, decisions on interest rates, decisions that affect unemployment, inflation and growth. As dwellers on the planet Earth we are affected by the economic decisions of each other: the air we breathe, the water we drink and the environment we leave to our children are all affected by the economic decisions taken by the human race.

Economics thus deals with some of the most challenging issues we face. It is this that still excites us about economics after many years of teaching the subject. We hope that some of this excitement rubs off on you.

The first nine editions of *Economics* have been widely used in Britain and throughout the world. Like them, this new edition is suitable for all students of economics at first-year degree level, A level or on various professional courses where a broad grounding in both principles and applications is required. It is structured to be easily understood by those of you who are new to the subject, with various sections and boxes that can be left out on first reading or on shorter courses; yet it also has sufficient depth to challenge those of you who have studied the subject before, with starred sections (appearing on a grey background) and starred case studies that will provide much that is new. There are also optional short mathematical sections for those of you studying a more quantitatively focused course.

The book gives a self-contained introduction to the world of economics and is thus ideal for those who will not study the subject beyond introductory level. But by carefully laying a comprehensive foundation and by the inclusion of certain materials in starred sections that bridge the gap between introductory and second-level economics, it provides the necessary coverage for those of you going on to specialise in economics.

The book looks at the world of the early twenty-first century. Despite huge advances in technology and despite the comfortable lives led by many people in the industrialised

world, we still suffer from unemployment, poverty and inequality, and in many countries (the UK included) the gap between rich and poor has grown much wider; our environment is polluted; our economy still goes through periodic recessions; conflict and disagreement often dominate over peace and harmony.

In today's world there are many challenges that face us, including:

- A growing interdependence of the economies of the world, with a seemingly inexorable process of 'globalisation', which links us all through a web of telecommunications and international trade into a world of Amazon, Facebook, Coca-Cola, Nike trainers, Google, Netflix and the English Premier League.
- New challenges for the UK arising from the Brexit vote.
- A rise in populism as the lower paid and unemployed see their incomes stagnating while the wealthy get richer. This has led to many people calling for policies to protect their jobs and communities from cheap imports.
- Large-scale migration of people across and within continents placing pressures on resources, but also creating new economic opportunities.
- Evidence that economic problems spread like a contagion around the world, tying domestic economic growth to global events.
- The effects of financialisation, by which we mean the increasing economic importance of the financial sector, and its impact on the financial health of people, businesses and governments as well as its potential to destabilise economies.
- The continuing hangover from the turmoil on international financial markets that culminated in the banking crisis of 2007–8, with many countries today still trying to tackle high levels of public and private debt and with austerity policies acting as a brake on growth.
- Rapid economic growth of some developing countries, such as India and China, which are increasingly influential in the global economy.
- A move away from the ideological simplicity of a 'free-market' solution to all economic problems.

- An EU struggling to reform its institutions and processes and to stimulate economic growth.
- An ever-deepening crisis for many of the poorest developing countries, often ravaged by disease, conflict and famines, and seemingly stuck in a cycle of poverty.

Economists are called on to offer solutions to these and many other problems. We shall be seeing what solutions economists can offer as the book progresses.

But despite our changing environment, there are certain economic fundamentals that do not change. Although there are disagreements among economists – and there are plenty – there is a wide measure of agreement on how to analyse these fundamentals.

Critical thinking and employability

When you are approaching graduation and start applying for jobs, you will need to demonstrate to potential employers that you have the range of skills necessary for analysing and solving problems and for communicating ideas and solutions to colleagues and clients. This requires the ability to think critically and to apply core concepts and ideas to new situations. Universities recognise this and ‘employability’ is a key objective of courses nowadays.

Employability is a core focus of this book. Critical thinking is developed through questions positioned throughout the text to encourage you to reflect on what you have just read and thereby improve and deepen your learning. Answers to these questions are freely available on the website to enable you to check your progress. Critical thinking is also developed through the use of Boxes of case studies and applications occurring several times in each chapter. These apply the economics you’re learning to a variety of real-world issues and data. There are many additional case studies with questions on the student website.

If your lecturer recommends the use of MyEconLab to accompany the text, you will find there large banks of additional questions and the ability to monitor your progress. These questions enable you to reflect on your learning and on where additional work is required.

Critical thinking is also encouraged through the use of fifteen ‘threshold concepts’. These are core ideas and concepts that recur throughout economics. Understanding and being able to apply these core economic concepts helps you to ‘think like an economist’ and to relate the different parts of the subject to each other. An icon appears in the margin

wherever the concept recurs so that you can easily recognise its use in a new context.

In addition there are 40 ‘Key ideas’ that encourage you to relate new material to a toolkit of ideas. Again, there are icons in the margin to help you identify the relevant idea.

The whole way through the book, you are encouraged to reflect on your learning, to apply it to the real world and to use real-world data to make sense of economic issues and problems.

In addition to the book, there is a news blog with new news items added several times per month. Each blog post discusses economic issues in the news and relates these news items to key economic concepts and theories. Links are given to a range of articles, videos, podcasts, data and reports and each blog post finishes with a set of discussion questions. You can access the blog from the book’s website at www.pearsoned.co.uk/sloman. Archived articles go back many months. You can also search the news articles by key word, chapter of this book or by month. Again, the use of real-world news topics, questions and data help you apply the theories and ideas you will learn in this book and develop these all-important critical thinking skills that are so central to employability.

In terms of employability, employees who can think flexibly and apply concepts and theories in new and perhaps strange situations to analyse and solve problems will be much more valuable to their employer. This book helps you to develop these skills. What is more, the use of data in the book and in the blogs and other web resources, and the hyperlinks in the e-text to data sources and relevant articles, will allow you to gain experience in using evidence to support and assess arguments.

Employers value these problem-solving skills. Indeed, they like to employ graduates with an economics degree, or some element of economics in their degree, because of the skills you will develop. And it’s not just for jobs as economists, but for a large number of professions where studying economics is seen to equip you with a valuable set of skills that are transferable to a range of non-economics situations.

We hope that this book will give you an enjoyable introduction to the economist’s world and that it will equip you with the tools to understand and criticise the economic policies that others pursue.

Good luck and have fun.

John, Dean and Jon

TO LECTURERS AND TUTORS

In the light of the financial crisis and the struggle of many countries to tackle its aftermath, there has been much soul-searching amongst economists about the appropriateness of the models we use and what should be taught to our students. These concerns were debated at an international conference at the Bank of England in 2012. One outcome of this was the publication of a book, *What's the Use of Economics?*¹ This considers how undergraduate courses could be reformed to meet the needs of employers and how economic models and syllabuses could be revised to reflect the real world and to provide a foundation for devising effective economic policy. A second, follow-up conference, *Revisiting the State of Economics Education*, took place at the Bank of England in 2015 and the debate continues.²

We have attempted to address these concerns in the past two editions of this book and have gone further still in this new edition. In particular, we have incorporated recent developments in macroeconomics, including stressing the importance of balance sheets, credit cycles, financial instability and systemic risk, the increased use of the *DAD/DAS* framework and the integration of the expectations-augmented Phillips curve and the *IS/MP* model. But these have been treated at a level wholly suitable for first-year students.

We have also given further weight to behavioural economics in analysing the behaviour of both consumers, firms and workers. In particular, there is more detailed discussion of loss aversion and the endowment effect, present bias and self-control issues, reference points and biases when making decisions under conditions of uncertainty. More weight is given to the importance of institutional structures and culture and we have also strengthened microeconomic analysis in several places, such as game theory and price discrimination.

We have also thoroughly revised the applied chapters and sections to reflect changes in policies. For example, we have included the implications of the Brexit vote and also of the Trump administration's policies in several parts of the book.

In addition, we show how many of the theories developed to explain the problems that existed at the time and how they have evolved to reflect today's issues. We have thus continued to emphasise the link between the history of economic thought and economic history.

This new edition also retains many of the popular features of the previous edition:

- A style that is direct and to the point, with the aim all the time to provide maximum clarity. There are numerous examples to aid comprehension.
- All economic terms highlighted in the text where they first appear and defined at the foot of that page. Each term is also highlighted in the index, so that the student can simply look up a given definition as required. By defining them on the page where they appear, the student can also see the terms used in context in the text.
- Key ideas highlighted and explained when they first appear. There are 40 of these ideas, which are fundamental to the study of economics. Students can see them recurring throughout the book, and an icon appears in the margin to refer back to the page where the idea first appears.
- Fifteen 'threshold concepts'. Understanding and being able to relate and apply these core economic concepts helps students to 'think like an economist' and to relate the different parts of the subject to each other. Again, an icon appears in the margin wherever the concept recurs.
- A wealth of applied material in boxes (177 in all), making learning more interesting for students and, by relating economics to the real world, bringing the subject alive. The boxes allow the book to be comprehensive without the text becoming daunting and allow more advanced material to be introduced where appropriate. Many of the boxes can be used as class exercises and virtually all have questions at the end.
- Extensive use of data, with links in the online version to general data sources and individual datasets, with many opportunities for students to explore data to help them reflect on policy choices.
- Full-page chapter introductions. These set the scene for the chapter by introducing the students to the topics covered and relating them to the everyday world. The introductions also include a 'chapter map'. This provides a detailed contents listing, helping students to see how the chapter is structured and how the various topics relate to each other.
- A consistent use of colour in graphs and diagrams, with explanations in panels where appropriate. These features make them easier to comprehend and more appealing.
- Starred sections and boxes for more advanced material (appearing with a grey background). These can be omitted without interrupting the flow of the argument. This allows the book to be used by students with different abilities and experience, and on courses of different levels of difficulty.
- 'Looking at the maths' sections. These short sections express a topic mathematically. Some use calculus; some do not. They are designed to be used on more quantitatively focused courses and go further than other textbooks at introductory level in meeting the needs of students on such courses. Most refer students to worked examples in Maths Cases on the student website. Some

1 Diane Coyle (ed.), *What's the Use of Economics?* (London Publishing Partnership, 2012).

2 Peter Day, 'Are economics degrees fit for purpose', *BBC News*, 5 February 2016).

of these use simultaneous equations; some use simple unconstrained optimisation techniques; others use constrained optimisation, using both substitution and Lagrange multipliers. The 'Looking at the maths' sections are short and can be omitted by students on non-mathematical courses without any loss of continuity.

- An open learning approach, with questions incorporated into the text so as to test and reinforce students' understanding as they progress. This makes learning a much more active process.
- End-of-chapter questions. These can be set as work for students to do in class or at home. Alternatively, students can simply use them to check their comprehension at the end of a topic.
- Summaries given at the end of each section, thus providing a point for reflection and checking on comprehension at reasonably frequent intervals.
- An even micro/macro split.
- The book is divided into seven parts. This makes the structure transparent and makes it easier for the student to navigate.

Despite retaining these popular features, there have been many changes to this tenth edition.

Extensive revision

Economics (10th edition) uses a lot of applied material, both to illustrate theory and policy, and to bring the subject alive for students by relating it to contemporary issues. This has meant that, as with the previous edition, much of the book has had to be rewritten to reflect contemporary issues. Specifically this means that:

- Many new boxes have been included on topical and controversial issues, including the secondary ticket market, the dominance of Google, the Financial Accelerator and primary surpluses/sustainable debt. Existing boxes have been extensively revised.
- There are many new examples given in the text.

- Theoretical coverage has been strengthened at various points in the book to reflect developments in the subject. This includes:

- an increased emphasis on the role of borrowing, debt, financial markets, balance sheets and risk at the government, corporate and household levels;
- the development of macroeconomic models, including the interaction between the *IS/MP* model, the *DAD/DAS* model and the expectations-augmented Phillips curve models;
- increased emphasis on behavioural economics at the level of both the consumer and the firm, including the impact of present bias, loss aversion, preferences for fairness and biases when making decisions in an uncertain environment;
- a deepening of the exposition of game theory and more detailed analysis of price discrimination, externalities and public goods.

- The text provides extensive coverage of the recent developments in money and banking and their impact on the economy.

- All policy sections reflect the changes that have taken place since the last edition, including changes to the regulation of businesses and the protection of the environment, and the continuing international responses to the financial crisis and policies adopted in various countries to reduce levels of public-sector deficits and debt. The text enables students to see how they can apply fundamental economic concepts to gain a better understanding of these important issues. Hence, students will be in a better position to analyse the actual responses of policy makers as well as the alternatives that could perhaps have been pursued.

- All tables and charts have been updated, as have factual references in the text.

- Most importantly, every single section and every single sentence of the book has been carefully considered, and if necessary redrafted, to ensure both maximum clarity and contemporary relevance. The result, we hope, is a text that your students will find exciting and relevant to today's world.

SUGGESTIONS FOR SHORTER OR LESS ADVANCED COURSES

The book is designed to be used on a number of different types of course. Because of its comprehensive nature, the inclusion of a lot of optional material and the self-contained nature of many of the chapters and sections, it can be used very flexibly.

It is suitable for one-year principles courses at first-year degree level, two-year economics courses on non-economics degrees, A level, HND and professional courses. It is also highly suitable for single-semester courses, either with a micro or a macro focus, or giving a broad outline of the subject.

The following suggests chapters which are appropriate to different types of course and gives some guidance on chapters that can be omitted while retaining continuity:

Alternative 1: Less advanced but comprehensive courses

Omit all starred sections, starred sub-sections and starred boxes.

Example of a comprehensive course, omitting some of these chapters: Chapters 1–8, 10, 12–14, 15, 17–22, 24–25.

Alternative 2: Economics for Business courses

Chapters 1–3, 5–9, 12–15, 18, 21, 23–6.

Example of an Economics for Business course, omitting some of these chapters: Chapters 1–3, 6–10, 14, 15, 18, 22, 24–25.

Alternative 3: Introduction to microeconomics

Chapters 1–14, 24. The level of difficulty can be varied by including or omitting starred sections and boxes from these chapters.

Example of an Introduction to Microeconomics course, omitting some of these chapters: Chapters 1–4, 6–8, 10, 12, 24.

Alternative 4: Introduction to macroeconomics

Chapters 1, 2, 15–26. The level of difficulty can be varied by including or omitting starred sections and boxes from these chapters.

Example of an Introduction to Macroeconomics course, omitting some of these chapters: Chapters 1, 2, (if microeconomics has not previously been covered) 15, 17–23, 25.

Alternative 5: Outline courses

Chapters 1, 2, 6, 7, 15, 17, 18, 22, 24, 25 (section 25.1). Omit boxes at will.

Alternative 6: Courses with a theory bias

Chapters 1, 2, 4–10, 12, 15–21, 23, 24, 25. The level of difficulty can be varied by including or omitting starred sections and boxes from these chapters.

Alternative 7: Courses with a policy bias (and only basic theory)

Chapters 1–3, 6, 7, 11–15, (17), 22–6.

COMPANION RESOURCES

MyEconLab (for students)

MyEconLab is a comprehensive set of online resources developed for the tenth edition of *Economics*. The book is available with an access card, but if your book did not come with one, you can purchase access to the resources online at www.MyEconLab.com.

MyEconLab provides a variety of tools to enable students to assess their own learning, including exercises, quizzes and tests, arranged chapter by chapter. There are many new questions in this edition and each question has been carefully considered to reflect the learning objectives of the chapter. A personalised Study Plan identifies areas to concentrate on to improve grades, and specific tools are provided to each student to direct their studies in the most efficient way.

Student website

In addition to the materials on MyEconLab, there is an open-access companion website for students with a large range of other resources, including:

- Animations of key models with audio explanations. These can be watched online or downloaded to a computer, MP4 player, smart phone, etc.;

- Links to the Sloman Economics news blog with news items added several times each month by a small team of authors;
- 201 case studies with questions for self study and a range of activities for individual students or groups. These case studies are ordered chapter by chapter and referred to in the text;
- Maths cases with exercises, related to the ‘Looking at the Maths’ sections in the book;
- Updated list of 285 hotlinks to sites of use for economics;
- Answers to all in-chapter questions;

Note that the companion website, news blog and hotlinks can also be accessed directly from www.pearsoned.co.uk/sloman.

See the Student resources chart on page xxi.

MyEconLab (for lecturers)

You can register online at www.myeconlab.com to use MyEconLab, which is a complete virtual learning environment for your course or embedded into Blackboard, WebCT or Moodle. You can customise its look and feel and its

availability to students. You can use it to provide support to your students in the following ways:

- MyEconLab's gradebook automatically records each student's time spent and performance on the tests and Study Plan. It also generates reports you can use to monitor your students' progress.
- You can use MyEconLab to build your own tests, quizzes and homework assignments from the question base provided to set for your students' assessment.
- Questions are generated algorithmically so that they use different values each time they are used.
- You can create your own exercises by using the econ exercise builder.

Additional resources for lecturers

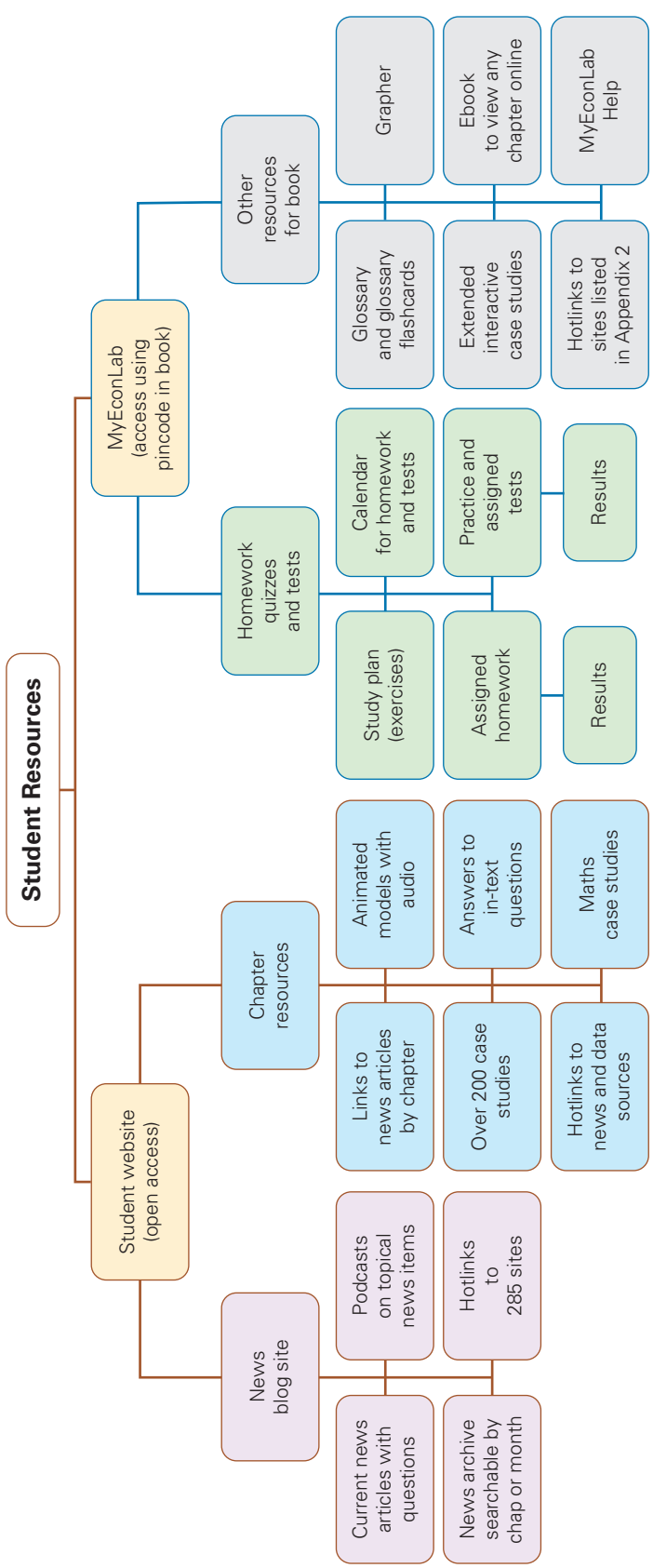
There are also many additional resources for lecturers and tutors that can be downloaded from the lecturer section of MyEconLab or from the separate lecturer website. These have been thoroughly revised from the tenth edition. These include:

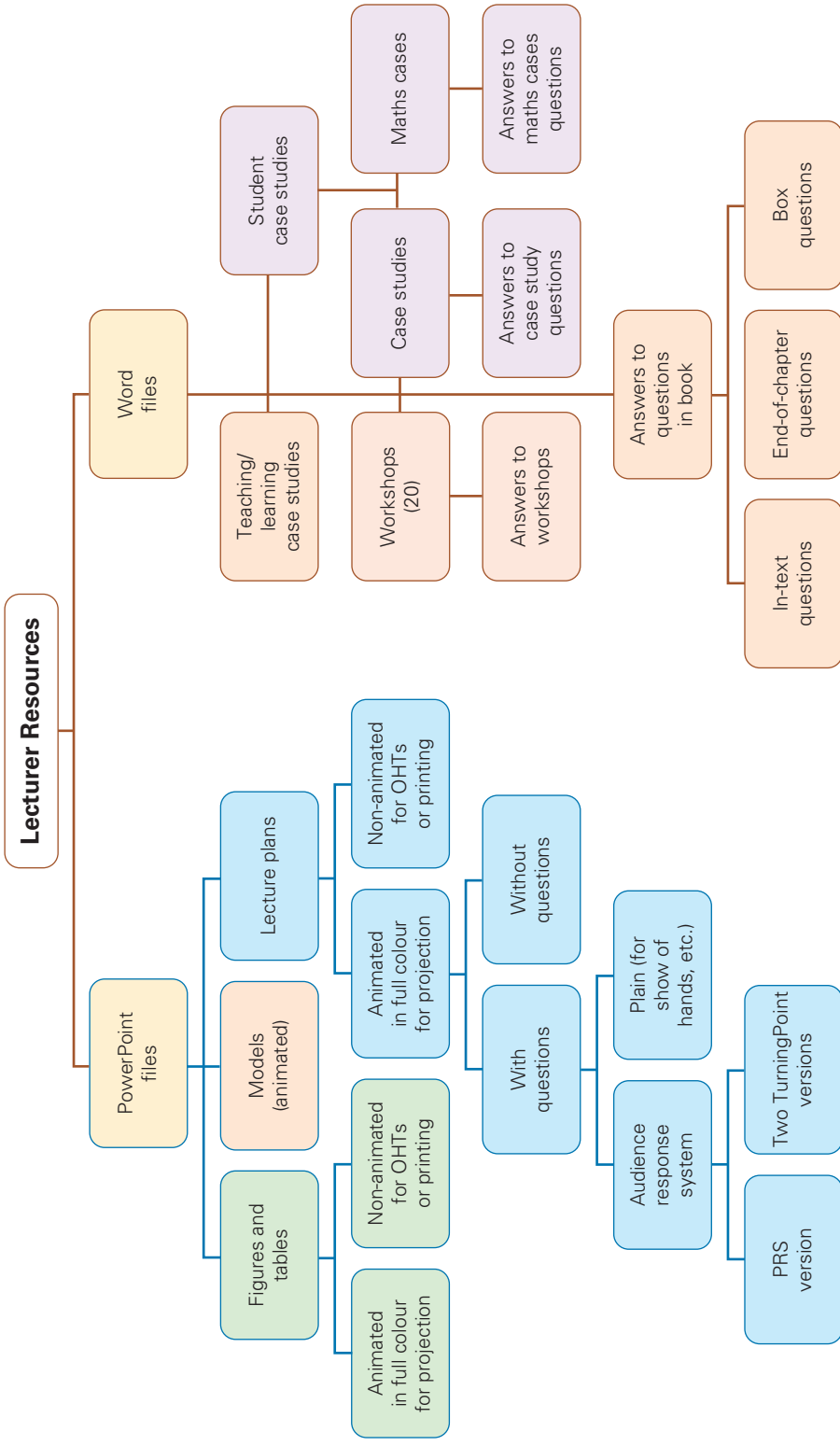
- PowerPoint® slideshows in full colour for use with a data projector in lectures and classes. These can also be made available to students by loading them on to a local network. There are several types of these slideshows:
 - All figures from the book and most of the tables. Each figure is built up in a logical sequence, thereby allowing them to be shown in lectures in an animated form. They are also available in a simple version suitable for printing for handouts or display on an OHP or visualiser.
 - A range of models. There are 41 files, each containing one of the key models from the book, developed in an animated sequence of between 20 and 80 screens.
 - Customisable lecture slideshows. There is one for each chapter of the book. Each one can be easily edited, with points added, deleted or moved, so as to suit particular lectures. A consistent use of colour is made to show how the points tie together. It is not intended that all the material is covered in a single lecture; you can break at any point. It's just convenient to organise them by chapter. They come in various versions:
 - Lecture slideshows with integrated diagrams. These include animated diagrams, charts and tables at the appropriate points.

- Lecture slideshows with integrated diagrams and questions. These include multiple-choice questions to allow lectures to become more interactive and can be used with or without an audience response system (ARS). ARS versions are available for InterWrite PRS® and for two versions of Turning-Point® and are ready to use with the appropriate 'clickers'.
- Lecture plans without the diagrams. These allow you to construct your own diagrams on the blackboard, whiteboard or visualiser.

- Answers to all questions in *Economics* (10th edition): i.e. questions embedded in the text, box questions and end-of-chapter questions. These can be edited as desired and distributed to students.
- Answers to the case studies and maths cases found in MyEconLab.
- Case studies. These 201 cases, also available to students on the student website, can be reproduced and used for classroom exercises or for student assignments. Most cases have questions, to which answers are also provided (not available to students). Each case also has an activity for individual students or for groups, and most would be suitable for seminars.
- Extended case studies. These have a range of student activities, questions, data and multimedia, and can be used for project work, group work, work for and during seminars and as part of assessment.
- Maths cases. These 27 maths cases with exercises, also available to students in MyEconLab, relate to the 'Looking at the Maths' sections in the book. Answers to the exercises are also provided (not available to students).
- Workshops. There are 20 of these (10 micro and 10 macro/international). They are in Word® and can be reproduced for use with large groups of students (up to 200). They can also be amended to suit your course. Suggestions for use are given in an accompanying file. Answers to all workshop questions are given in separate Word® files.
- Teaching/learning case studies. These 20 case studies examine various ways to improve student learning of introductory economics. They have been completely revised with new hyperlinks where appropriate.

The following two pages show in diagrammatic form all the student and lecturer resources.





Acknowledgements

As with previous editions, we owe a debt to various people. The whole team from Pearson has, as always, been very helpful and supportive. Thanks in particular to Natalia Jaszczuk and Catherine Yates, the editors, who have offered great support throughout the long process of bringing the book to print. Thanks also to Joan Dale Lace, who, as previously, meticulously copyedited the manuscript and to Sue Gard who carefully proofread everything.

A huge thanks goes to Alison Wride from EML Learning who co-authored the previous three editions. She has decided to concentrate her efforts on her work with the Government Economic Service, but many of her ideas are still retained in this edition. And a special thanks, as previously, to Mark Sutcliffe from the Cardiff School of Management. He provided considerable help and support for the first few editions and it's still much appreciated.

Thanks too to colleagues and students from many universities who have been helpful and encouraging and, as in previous editions, have made useful suggestions for improvement. We have attempted to incorporate their ideas wherever possible. Please do write or email if you have any suggestions. Especially we should like to thank the following reviewers of the previous editions. Their analysis and comments have helped to shape this new edition.

Review of the 9th Edition:

Professor Francesco Feri, Royal Holloway, University of London, UK.

Helen Arce Salazar, The Hague University of Applied Sciences, Netherlands.

Dr Marie Wong, Middlesex University, UK.

Professor Peter Schmidt, Hochschule Bremen, City University of Applied Sciences, Germany.

Dr Sambit Bhattacharyya, University of Sussex, UK.

Review of 10th Edition:

Dr Giorgio Motta, Lancaster University, UK.

Dr Eric Golson, University of Surrey, UK.

Dr Giancarlo Ianulardo, University of Exeter, UK.

A special thanks to Peter Smith from the University of Southampton who has again thoroughly revised and updated the MyEconLab online course. It's been great over the editions to have his input and ideas for improvements to the books and supplements.

Finally, our families have been remarkably tolerant and supportive throughout the writing of this new edition. A massive thanks to Alison, Pat and Helen, without whose encouragement the project would not have been completed.

Publisher's acknowledgements

We are grateful to the following for permission to reproduce copyright material:

Figures

Figure 11.1 adapted from Household disposable income and inequality 2015/16, Table 1 (ONS, January 2017), Contains public sector information licensed under the Open Government Licence (OGL) v3.0.<http://www.nationalarchives.gov.uk/doc/open-government-licence>.; Figure 11.3 adapted from Household disposable income and inequality (ONS, 2017) <https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/datasets/householddisposableincomeandinequality>, Contains public sector information licensed under the Open Government Licence (OGL) v3.0.<http://www.nationalarchives.gov.uk/doc/open-government-licence>.; Figure 11.6 adapted from *Dataset: Income and source of income for all UK Households*, National Statistics (2017) Table 18, Contains public sector information licensed under the Open Government Licence (OGL) v3.0.<http://www.nationalarchives.gov.uk/doc/open-government-licence>.; Figure 11.7 adapted from *Dataset: Occupation (4 digit SOC) - Annual Survey of Hours and Earnings: Table 14*, National Statistics (2016) Table 14.2a, Contains public sector information licensed under the Open Government Licence (OGL) v3.0.<http://www.nationalarchives.gov.uk/doc/open-government-licence>.; Figure 11.8 adapted from *The effects of taxes and benefits on household income*, National Statistics (2016) Table 19, Contains public sector information licensed under the Open Government Licence (OGL) v3.0.<http://www.nationalarchives.gov.uk/doc/open-government-licence>.; Figure 11.9 adapted from *The effects of taxes and benefits on household income*, National Statistics (2016) Table 28, Contains public sector information licensed under the Open Government Licence (OGL) v3.0.<http://www.nationalarchives.gov.uk/doc/open-government-licence>.; Figure 11.10 adapted from *Distribution of personal wealth statistics*, National Statistics (HMRC 2016) Table 13.1, Contains public sector information licensed under the Open Government Licence (OGL) v3.0.<http://www.nationalarchives.gov.uk/doc/open-government-licence>.; Figure 13.4 adapted from *Family Spending Reference Tables*, National Statistics (2017) Table 3.2, Contains public sector information licensed under the Open Government Licence (OGL) v3.0.<http://www.nationalarchives.gov.uk/doc/open-government-licence>.;

Figure 15.4 adapted from Time Series Data, series YBHA and ABMI (Office for National Statistics), Contains public sector information licensed under the Open Government Licence (OGL) v3.0.<http://www.nationalarchives.gov.uk/doc/open-government-licence>.; Figure 15.7 adapted from Quarterly National Accounts, series KGZ7, KG7T and IHYR (National Statistics), Contains public sector information licensed under the Open Government Licence (OGL) v3.0.<http://www.nationalarchives.gov.uk/doc/open-government-licence>.; Figure 15.9 adapted from Dataset UNEM01 SA: Unemployment by age and duration (seasonally adjusted) (ONS), Contains public sector information licensed under the Open Government Licence (OGL) v3.0.<http://www.nationalarchives.gov.uk/doc/open-government-licence>.

Tables

Tables 1.1, 1.2 adapted from Time Series data, series MGSC (ONS, 2017), Contains public sector information licensed under the Open Government Licence (OGL) v3.0.<http://www.nationalarchives.gov.uk/doc/open-government-licence>.; Table 1.3 adapted from *The Effects of Taxes and Benefits on Household Income*, financial year ending 2016, Table 29 (ONS, 2017) <https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/datasets/theeffectsoftaxesandbenefitsonhouseholdincomefinancialyearending2014>, Contains public sector information licensed under the Open Government Licence (OGL) v3.0.<http://www.nationalarchives.gov.uk/doc/open-government-licence>.; Table 1.5 adapted from Time Series data, series K22A (ONS, 2017)., Contains public sector information licensed under the Open Government Licence (OGL) v3.0.<http://www.nationalarchives.gov.uk/doc/open-government-licence>.; Table on page 192 adapted from *United Kingdom Input-Output Analyses, 2006 Edition* National Statistics (2006) Table 8.31, Contains public sector information licensed under the Open Government Licence (OGL) v3.0.<http://www.nationalarchives.gov.uk/doc/open-government-licence>.; Table on page 222 adapted from *United Kingdom Input-Output Analyses, 2006 Edition*, National Statistics (2006) Table 8.31, Contains public sector information licensed under the Open Government Licence (OGL) v3.0.<http://www.nationalarchives.gov.uk/doc/open-government-licence>.; Table on page 272

from How do UK companies set prices?, *Bank of England Quarterly Bulletin*, Q2, Table D, p.188 (Hall, S., Walsh, M. and Yates, T. 1996); Table on page 272 from How do UK companies set prices?, *Bank of England Quarterly Bulletin*, Q2, Table E, p.189 (Hall, S., Walsh, M. and Yates, T. 1996), <http://www.bankofengland.co.uk/archive/Documents/historicpubs/qb/1996/qb9602.pdf>; Table on page 273 from Price-setting behaviour in the United Kingdom, *Bank of England Quarterly Bulletin*, Q4, Table E, p.408 (Greenslade, J. & Parker, M. 2008), <http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/qb080403.pdf>; Table on page 294 adapted from *Dataset: All Employees - Annual Survey of Hours and Earnings: Table 1*, National Statistics (2016) Table 1.6a, Contains public sector information licensed under the Open Government Licence (OGL) v3.0.[http://www.nationalarchives.gov.uk/doc/open-government-licence.](http://www.nationalarchives.gov.uk/doc/open-government-licence;); Table on page 294 adapted from *Dataset: Occupation (4 digit SOC) - Annual Survey of Hours and Earnings: Table 14*, National Statistics (2016) Table 14.6a, Contains public sector information licensed under the Open Government Licence (OGL) v3.0.[http://www.nationalarchives.gov.uk/doc/open-government-licence.](http://www.nationalarchives.gov.uk/doc/open-government-licence;); Table 11.2 adapted from *Dataset: Household disposable income and inequality*, National Statistics (2017) Table 2, Contains public sector information licensed under the Open Government Licence (OGL) v3.0.[http://www.nationalarchives.gov.uk/doc/open-government-licence.](http://www.nationalarchives.gov.uk/doc/open-government-licence;); Table on page 382 after *Economic Case for HS2 (Department for Transport, October 2013)* High Speed Two (HS2) Limited (2013) Table 15, p.85, http://assets.hs2.org.uk/sites/default/files/inserts/S%26A1_Economiccase_0.pdf, Contains public sector information licensed under the Open Government Licence (OGL) v3.0.[http://www.nationalarchives.gov.uk/doc/open-government-licence.](http://www.nationalarchives.gov.uk/doc/open-government-licence;); Table on page 401 after Government revenue from environmental taxes in the UK, 1997 to 2016, *Dataset: Environmental Taxes*, Table 1, Contains public sector information licensed under the Open Government Licence (OGL) v3.0.[http://www.nationalarchives.gov.uk/doc/open-government-licence.](http://www.nationalarchives.gov.uk/doc/open-government-licence;); Table 13.2 adapted from *Transport Statistics of Great Britain Database 2016*, Department for Transport (2017) Table TSGB0101, Contains public sector information licensed under the Open Government Licence (OGL) v3.0.[http://www.nationalarchives.gov.uk/doc/open-government-licence.](http://www.nationalarchives.gov.uk/doc/open-government-licence;); Table 15.5 adapted from Balance of Payments (ONS)

<https://www.ons.gov.uk/economy/nationalaccounts/balanceofpayments>, Contains public sector information licensed under the Open Government Licence (OGL) v3.0.[http://www.nationalarchives.gov.uk/doc/open-government-licence.](http://www.nationalarchives.gov.uk/doc/open-government-licence;); Tables 15.6, 15.7 adapted from *UK National Accounts, The Blue Book: 2016*, ONS, Contains public sector information licensed under the Open Government Licence (OGL) v3.0.[http://www.nationalarchives.gov.uk/doc/open-government-licence.](http://www.nationalarchives.gov.uk/doc/open-government-licence;); Table on page 528 adapted from National Balance Sheet and Quarterly National Accounts (National Statistics), Contains public sector information licensed under the Open Government Licence (OGL) v3.0.[http://www.nationalarchives.gov.uk/doc/open-government-licence.](http://www.nationalarchives.gov.uk/doc/open-government-licence;); Table on page 720 adapted from Capital Stocks, Consumption of Fixed Capital, 2016 and Quarterly National Accounts (series YBHA) (National Statistics), Contains public sector information licensed under the Open Government Licence (OGL) v3.0.[http://www.nationalarchives.gov.uk/doc/open-government-licence.](http://www.nationalarchives.gov.uk/doc/open-government-licence;); Table on page 804 adapted from Economist

Text

Poetry on pages 862-863 from *The Apeman Cometh*, Jonathan Cope (Adrian Mitchell 1975) © Adrian Mitchell, Reprinted by kind permission of United Agents LLP; General Displayed Text on page 382 from *Economic Case for HS2 – the Y network and London–West Midlands*, Department for Transport (2011), Contains public sector information licensed under the Open Government Licence (OGL) v3.0.[http://www.nationalarchives.gov.uk/doc/open-government-licence.](http://www.nationalarchives.gov.uk/doc/open-government-licence;); Box 12.2 after Commons Sense, *The Economist*; General Displayed Text 12.6 from *Economic Case for HS2 – the Y network and London–West Midlands*, Department for Transport (High Speed Two 2013) Table 15, p.85, Contains public sector information licensed under the Open Government Licence (OGL) v3.0.[http://www.nationalarchives.gov.uk/doc/open-government-licence.](http://www.nationalarchives.gov.uk/doc/open-government-licence;); General Displayed Text on page 394 from *The Economics of Climate Change: The Stern Review*, HM Treasury (Stern, N. 2007) p. i, Contains public sector information licensed under the Open Government Licence (OGL) v3.0.[http://www.nationalarchives.gov.uk/doc/open-government-licence.](http://www.nationalarchives.gov.uk/doc/open-government-licence;); Box 23.6 after Intricate workings: Tackling unemployment requires a careful mixture of policies, *The Economist*.

A nighttime photograph of a city skyline with many illuminated skyscrapers. The sky is dark blue, and the lights from the buildings create a vibrant, glowing effect. The buildings vary in height and architectural style, with some having distinctive shapes like the Empire State Building.

A

Part

Introduction

Why Economics is Good for You

2

1 Economics and Economics

6

This opening part of the book introduces you to economics – what it is, some of the fundamental concepts and, most of all, why it is a great subject to study. Economics is not a set of facts or theories to be memorised; it is both more interesting and more useful than that. Studying economics enables you to think about the world in a different way; it helps you to make sense of the decisions people make: decisions about what to buy or what job to do; decisions governments make about how much to tax or what to spend those taxes on; decisions businesses make about what to produce, what prices to charge and what wages to pay. This makes economics relevant for everyone, not only those who are going on to further study.

After studying economics you will be able to apply this ‘way of thinking’ to your life both now and in the future. You will be able to think more analytically and to problem-solve more effectively; this helps explain why economics graduates are so highly valued by employers. Studying economics therefore opens up a variety of career opportunities.

Economics contains some simple core ideas which can be applied to a wide range of economic problems. We will start examining these ideas in Chapter 1, but we begin on the next four pages, in ‘Why Economics is Good for You’, with a look at some interesting questions and puzzles that make the subject such a rich one. By the time you have studied the book, you’ll be able to answer these and more.



Why Economics is Good for You

CHAPTER MAP

What is economics?	3
An island economy	3
Books and media	3
Puzzles and stories	4
A pay-rise, how exciting	4
Do we have too much debt?	4
Of course I want to know	4
We need to save more; we need to spend more	4
Applying the principles	5
Thinking like an economist – a word of warning	5

You may never have studied economics before, and yet when you open a newspaper what do you read? – a report from ‘our economics correspondent’. Turn on the television news and what do you see? – an item on the state of the economy. Talk to friends and often the topic will turn to the price of this or that product, or whether you have got enough money to afford to do this or that.

The fact is that economics affects our daily lives. We are continually being made aware of local, national and international economic issues, such as price increases, interest rate changes, fluctuations in exchange rates, unemployment, economic recessions or the effects of globalisation.

We are also continually faced with economic problems and decisions of our own. What should I buy for lunch? Should I save up for a summer holiday, or spend more on day-to-day living? Should I go to university, or should I try to find a job now? If I go to university, should I work part-time?

This ‘mini chapter’ is an easy read to get you started on the road to thinking like an economist.

WHAT IS ECONOMICS?

If we told you that economics is a problem of maximisation subject to constraints, you'd probably drop this book and find something else to do. So let's put it a different way. Economics is a way of answering some of the most important questions societies face. It's also a way of answering much 'smaller' questions: ones that affect all of us. We are going to set out some of these questions, and start you off on your economics journey. But be warned – once you start thinking like an economist, you probably won't be able to stop.

An island economy

In Chapter 1 we will introduce various core economic concepts and some formal definitions of the economic problems faced by individuals and society. But let's start with a flight of fancy.

Let's suppose that we wake up tomorrow and find ourselves in charge of an island economy. Who is 'we' in this case? Well perhaps it is the authors, plus the reader. Or perhaps it is your economics tutorial group, or a group of random strangers. It really doesn't matter, since it is just an imaginary problem.

Once we got over the excitement of being in charge of a whole economy, we might begin to appreciate that it's not going to be all palm trees and days at the beach. An economy has people who need to eat, be housed and will need access to health care. It may have other islands, nearby, that are friendly and want to trade – or are not friendly and may want to invade.

Being in charge suddenly seems to involve quite a few decisions. What is this island going to produce so that people can live? Is it going to be self-sufficient, or to 'swap' goods with other countries? How are people going to know what to produce? How will the products be shared out? Will they be allocated to everyone, even those who do not work? What will we do if some people are too old to work and haven't got savings or families? What should we do if the island bank runs out of money? How can we be sure that we will have enough resources to support the people next year, as well as this?

At the end of the book (page 862) you will see a poem about people cast away on a desert island. Hopefully, after reading this book, you will understand their plight better. But you might find it interesting to read it now before embarking on your studies.

Of course, we are never actually going to be parachuted in to be in charge of an island, except, perhaps, in a reality TV show – although some of you reading this book may aspire to go into politics. But the questions we have posed above are a reflection of the real challenges countries face. We will look

at the role of government throughout this book: choices that need to be made, decisions that need to be taken, different approaches policy makers can take, and what happens when governments need to work together.

Books and media

Economics has undergone something of a makeover in the past few years. There are two main reasons.

In 2007–8 there was a major financial crisis, which led to the collapse of banks across the world and a downturn in the global economy. It also led to a close scrutiny of why economists had not predicted the crisis. The outcome was a great deal more coverage of economics and economists than had been seen previously – an interesting example of the Oscar Wilde saying, 'There is only one thing worse than being talked about, and that is not being talked about.' Indeed, it stimulated a lot of interest in studying economics at university!

The second reason has less to do with actual economics and more to do with the way it has been written about. The first decade of the century saw the publication of a number of books which presented economics as a series of thought-provoking puzzles, rather than as a purely academic subject. These included *The Undercover Economist*¹ by Tim Harford and the *Freakonomics*² titles, which resulted from collaboration between University of Chicago economist Steven Levitt and New York Times journalist Stephen J. Dubner.

Today, coverage of economics is widespread: in papers, on the Internet, in blogs and radio and television programmes. If you are reading this book because you are studying for a degree or other qualification, you may feel that you are just too busy to read more than the recommended reading list. But try to think more broadly than that. You will find that you can develop your 'economics' brain by spotting the issues. Whether you read papers, or look at news sites online, if you get into the habit of identifying economic issues and puzzles, you will be going a long way towards being an economist.

You could start by Googling the Sloman Economics News site.³ This not only gives you links to up-to-date articles, with some analysis and questions, it also links through to chapters in this book.

1 Tim Harford, *The Undercover Economist* (Little, Brown, 2005).

2 Steven D. Levitt and Stephen J. Dubner, *Freakonomics: A Rogue Economist Explores the Hidden Side of Everything* (William Morrow and Company, 2005).

3 www.pearsoned.co.uk/sloman

PUZZLES AND STORIES

Let's look at some examples of economic puzzles and ideas. The ones we discuss below are just a few that you might find interesting.

A pay rise, how exciting

Do you work? By which we mean, do you work for money? If so, make a note of your hourly pay and how many hours you work per week.

Let's assume you are earning £7.50 per hour. Would you like a pay rise to £15 per hour? You would? And what will you do with the extra money you earn? You might go on holiday, or save more, or perhaps you'll simply go out for an extra evening per week, or buy nicer food when you go shopping.

But before we start talking about that, we need to go back to that note of yours. If your rate of pay doubled, how many hours would you work now? You might work the same number of hours; you might think it's worth working more hours; or, you might decide that you can work fewer hours and have more time for other things. It's an interesting puzzle for you to think about. You could ask your friends how they might react in this situation. Perhaps you, or some of your friends, aren't working at the moment, but might do so if higher rates of pay were on offer.

We've thought about this from your point of view. Who else might be interested in the puzzle? Employers are obviously involved. If they want people to do more work, they might consider whether offering higher hourly rates will achieve that. Imagine how annoying it would be if instead people want to work fewer hours, not more. We will see in Chapters 10 and 11 that governments might be interested, too.

Do we have too much debt?

If you are thinking about your student loan or credit card debt, then you will probably immediately say yes. Debt arises from borrowing – the more you borrow and the less you pay back the bigger your debt will be. But borrowing is not always a bad thing. You might not like having to borrow to go to university, but you probably thought it was your best option. You hope that, by getting a degree, you will get a higher salary and that this will more than compensate for the extra debt. It is the same when people buy a house or apartment. People are willing to take out a mortgage so that they can have a place of their own now and 'get on the housing ladder'.

But what about governments? After the financial crisis of 2007–8, governments around the world borrowed large amounts of money to support their economies. They used the money to fund ailing banks and to spend on infrastructure, such as roads, hospitals and broadband. But then, as government debt rocketed, many governments decided they were borrowing too much. They did an about-turn. They started an austerity drive of cutting government expenditure and raising taxes. But was this the right thing to do? Was the debt

too high, or should they have continued borrowing to invest in infrastructure and boost the economy? This is something that economists and politicians are still debating to this day.

Of course I want to know

One thing that economists spend a lot of time talking and thinking about is information. We will see in the rest of this book how important it is when making decisions. And, as you've already seen, most of economics is about making decisions. For example, how can you decide which university to apply for? You need to have all sorts of information: what the entry requirements are, what the structure of the course is, how good the lecturers are at teaching and making the subject interesting, how many people get good jobs at the end of the course, how good the social life is, what the accommodation is like. You can probably think of at least three or four other questions you would want answering.

Let's take another example. Suppose you are trying to decide whether to see a film that's just been released. You can get information about the plot, the actors, the special effects, the rating, etc. You can talk to friends who've seen it. You can also read opinions of critics and reviewers on the quality of the film. Hopefully all this information will help you choose whether to spend money and time going to see it.

Similarly, you can get information about many of the other goods and services you might want to buy, by talking to friends or family, researching on the Internet or browsing in shops.

What about a bigger piece of information? Suppose someone could tell you exactly how long you will live if you continue with your current lifestyle? Would that be a useful piece of information? How would it change your day-to-day choices? Would you behave differently right away? Does your answer depend on who gives the information? You might be more inclined to believe a scientist than an astrologer!

In practice, no one is going to be able to tell you your exact life expectancy (to the day). Accidents can happen and medicine moves on. So the best you could currently expect is an informed prediction based, usually, on statistical probability. But such informed predictions about life expectancy are crucial for insurance companies deciding on premiums.

Information is all around us – in fact, we are said to live in the information age. So the problem is often not one of a lack of information, but one of selecting what information is reliable. We hope, by reading this book, you will be better able to assess information and its usefulness for making economic decisions.

We need to save more; we need to spend more

Puzzles like the two above involve decisions of individual people and these are probably the easiest type to identify. But there are some which apply to a whole economy or country. The second half of this book, Chapters 15 onwards,

looks at ‘whole economy’ economics, so let’s identify an issue in that area.

How much do you save? The answer is likely to depend on your income, your spending habits and probably on things that are hard to pin down, such as your current level of confidence or how ‘good’ you are at saving.

Now let’s think about saving on a national basis. You may have heard people say that we need to save more. There are all sorts of reasons why saving is a ‘good thing’. We are living longer and, unless we save more, we may not have enough to be comfortable in our old age. When we save, we have a buffer against emergencies. When we save, we are not (generally) borrowing, so we don’t have to pay interest; instead, we receive interest and so our income is higher.

All of these reasons can be scaled up to the whole economy. You have probably heard politicians say that the country needs to save for the future, especially if we are all going to live longer. The nation, they argue, needs to reduce its debts so that we can reduce the interest we have to pay, leaving more over for the things people want, such as a better health service and better education. And if emergencies arise (the financial crisis of 2007–8 is a really good example) the country will be in a better position if banks have plenty of money. It’s

also true that saving by individuals provides a source of funds for businesses that want and need to borrow for investment.

You might be wondering why this is a puzzle, since it seems pretty straightforward.

Let’s think about the opposite of saving. If you don’t save, what do you do with your money? You spend it and, hopefully, enjoy it. Imagine the opposite – that you saved a lot of your income, much more than you do now. Imagine that you only bought the barest of necessities, grew your own food, wore the same clothes for years and didn’t buy any new technology, or even have an occasional night out. You might have a pretty miserable life.

Now scale this up to the whole economy again. If people start spending less, what will happen? Businesses will very quickly be in trouble. The banks will be full of our savings, but no one will be borrowing. With spending falling, many firms won’t be able to make profits and will have to close. The economy will move into recession and very soon could be in severe crisis.

Of course this is an exaggerated example. But you can see the puzzle, can’t you? Saving is good, but so is spending. What should we do? What should the government encourage us to do?

APPLYING THE PRINCIPLES

Thinking like an economist – a word of warning

As you go through the rest of this book, whether you study all of it or just some sections, try to spot the puzzles we have talked about above. And look out for other puzzles and issues. You can do this outside formal study. Economics is about people and society. It isn’t a dry subject; it is something that is all around us. Try to get into the habit of thinking like an economist on a daily basis. If there’s a decision to be made, there’s an economic way of thinking about it.


To help you think like an economist, we’ve identified 15 ‘threshold concepts’. Understanding these concepts and being able to apply them in various contexts helps you gain a deeper understanding of economic problems and choices. We describe each concept when we first come across it and then,

each time we use it, there is an icon in the margin to remind you and to refer you back to the page where it’s described.

Where will this approach of ‘thinking like an economist’ take you? It will make you more analytical; it will help you make better decisions. There’s evidence that it can get you a better job and it will certainly make you better at your job.

We’d like to offer one word of warning though. Once you’re thinking like an economist, there’s no turning back. It’s a skill that will be with you for life. Just bear in mind that the non-economists around you may need convincing about the beauty of the subject.

Enjoy the book, but, more importantly, enjoy your journey through economics and the new light it will shed on the world around you.

BOX A.1	WHAT’S THE LATEST ECONOMICS NEWS?	CASE STUDIES AND APPLICATIONS
<ul style="list-style-type: none"> ■ Government says that the UK cannot remain in the EU single market or customs union when it leaves the EU. ■ The Bank of Japan engages in another round of quantitative easing to boost the ailing Japanese economy. ■ Severe droughts cause crops to fail across sub-Saharan Africa: higher grain prices expected soon. ■ There is widespread criticism of Donald Trump’s policies on trade, with fears that US exports might suffer if America cuts back on imports. ■ Unemployment falls and economic growth accelerates, leading to expectations of higher interest rates. ■ The age at which UK workers can draw their state pension is raised further. Many predict that those currently under 30 will be working until at least the age of 70. ■ Lack of training helps to explain low levels of productivity. ■ Oil prices set to remain low for many years as more and more countries engage in fracking. ■ Interest rates likely to rise; house prices likely to fall. <div style="margin-top: 10px;">  <ol style="list-style-type: none"> 1. <i>What is it that makes each one of the above news items an economics item?</i> 2. <i>In each case identify two different individuals or groups who might be affected by the news item.</i> </div>		



Economics and Economies

CHAPTER MAP

1.1 What do economists study?	7
The problem of scarcity	7
Demand and supply	8
Dividing up the subject	8
Macroeconomics	8
Microeconomics	9
Illustrating economic issues: the production possibility curve	14
Illustrating economic issues: the circular flow of goods and incomes	17
1.2 Different economic systems	18
The classification of economic systems	18
The command economy	20
Assessment of the command economy	20
The free-market economy	21
Assessment of the free-market economy	24
The mixed economy	25
1.3 The nature of economic reasoning	27
Economics as a science	27
Economics as a social science	29
Economics and policy	29

In the introductory chapter we discussed some of the questions and puzzles that make economics such an interesting subject to study. Now we turn to explaining those ideas in a bit more detail. We also introduce some of the tools you will need to help you analyse the puzzles posed and answer the questions.

Economics contains some core ideas. These ideas are simple, but can be applied to a wide range of economic problems. We start examining these ideas in this chapter. We begin on the journey to help you to ‘think like an economist’ – a journey that we hope you will find fascinating and will give you a sound foundation for many possible future careers.

In the introductory chapter, we asked what economics is about. In this chapter, we will attempt to answer that question and give you greater insight into the subject you are studying. We will see how the subject is divided up and we will distinguish between the two major branches of economics: microeconomics and macroeconomics.

We will also look at the ways in which different types of economy operate, from the centrally planned economies of the former communist countries to the more free-market economies of most of the world today. We will ask just how ‘markets’ work.

1.1 WHAT DO ECONOMISTS STUDY?

Many people think that economics is about *money*. Well, to some extent this is true. Economics has a lot to do with money: with how much money people earn; how much they spend; what various items cost; how much money firms make; the total amount of money there is in the economy. But, as we shall see later in the book, money is only important because of what it allows us to do; money is a tool and economics is more than just the study of money.

It is concerned with the following:

- The **production** of goods and services: how much an economy produces, both in total and of individual items; how much each firm or person produces; what techniques of production are used; how many people are employed.
- The **consumption** of goods and services: how much people spend (and how much they save); how much people buy of particular items; what individuals choose to buy; how consumption is affected by prices, advertising, fashion, people's incomes and other factors.



Could production and consumption take place without money? If you think they could, give some examples.

But we still have not got to the bottom of what economics is about. Is there one crucial ingredient that makes a problem an economic one? The answer is that there is a central problem faced by all individuals and all countries, no matter how rich. It is the problem of *scarcity* – an issue underlying all other economic problems. For an economist, scarcity has a very specific definition.



Before reading on, how would you define 'scarcity'? Must goods be at least temporarily unattainable to be scarce?

The problem of scarcity

Ask people if they would like more money, and the vast majority would answer 'Yes'. But they don't want more money for its own sake. Rather they want to be able to buy more goods and services, either today or in the future.

These 'wants' will vary according to income levels and tastes. In a poor country 'wants' might include clean water, education and suitable housing. In richer nations 'wants' might involve a second car, longer holidays and more time with friends and family. As countries get richer, human wants may change but they don't disappear. Wants are virtually unlimited.

Yet the means of fulfilling wants are limited. At any point, the world can only produce a finite amount of goods and services because the world has a limited amount of *resources*. These resources, or **factors of production** as they are often called in economics, are of three broad types:

- Human resources: **labour**. The labour force is limited in number, but also in skills. This limits the productivity of labour: i.e. the amount labour can produce.
- Natural resources: **land and raw materials**. The world's land area is limited, as are its raw materials.
- Manufactured resources: **capital**. Capital consists of all those inputs that have themselves had to be produced. The world has a limited stock of factories, machines, transportation and other equipment. The productivity of this capital is limited by the current state of technology.



Could each of these types of resources be increased in quantity or quality? Is there a time dimension to your answer?

So this is the fundamental economic problem: human wants are virtually unlimited, whereas the resources available to meet those wants are limited. We can thus define scarcity as follows:



Scarcity is the excess of human wants over what can actually be produced. Because of scarcity, various choices have to be made between alternatives.



If we would all like more money, why does the government not print a lot more? Could it not thereby solve the problem of scarcity 'at a stroke'?

Definitions

Production The transformation of inputs into outputs by firms in order to earn profit (or to meet some other objective).

Consumption The act of using goods and services to satisfy wants. This will normally involve purchasing the goods and services.

Factors of production (or resources) The inputs into the production of goods and services: labour, land and raw materials, and capital.

Labour All forms of human input, both physical and mental, into current production.

Land and raw materials Inputs into production that are provided by nature: e.g. unimproved land and mineral deposits in the ground.

Capital All inputs into production that have themselves been produced: e.g. factories, machines and tools.

Scarcity The excess of human wants over what can actually be produced to fulfil these wants.

Of course, we do not all face the problem of scarcity to the same degree. A poor family who may not be able to afford enough to eat, or a decent place to live, will hardly see it as a 'problem' that a rich family cannot afford a second skiing holiday. But economists do not claim that we all face an equal problem of scarcity. In fact this is one of the major issues economists study: how resources are distributed, whether between different individuals, different regions of a country or different countries of the world.

This economic problem – limited resources but limitless wants – makes people, both rich and poor, behave in certain ways. Economics studies that behaviour. It studies people at work, producing goods that people want. It studies people as consumers, buying the goods that they want. It studies governments influencing the level and pattern of production and consumption. It even studies why people get married and what determines the number of children they have! In short, it studies anything to do with the process of satisfying human wants.

Demand and supply

We have said that economics is concerned with consumption and production. Another way of looking at this is in terms of *demand* and *supply*. Demand and supply and the relationship between them lie at the very centre of economics. How does this relate to the problem of scarcity?

Demand is related to wants. If every good and service were free, people would simply demand whatever they wanted. In total, such wants are likely to be virtually boundless, perhaps only limited by people's imaginations. *Supply*, on the other hand, is limited. It is related to resources. The amount that firms can supply depends on the resources and technology available.

Given the problem of scarcity – that human wants exceed what can actually be produced – *potential* demands will exceed *potential* supplies. Society has to find some way of dealing with this problem, to try to match demand with supply. This applies at the level of the economy overall: total or '*aggregate*' demand needs to be balanced against total or *aggregate* supply. In other words, total spending in the economy should balance total production. It also applies at the level of individual goods and services. The demand and supply of cabbages should balance, and so should the demand and supply of cars, houses, tablets and holidays.

But if potential demand exceeds potential supply, how are *actual* demand and supply made equal? Either demand has to be reduced, or supply has to be increased, or a combination of the two. Economics studies this process. It studies how demand adjusts to available supplies, and how supply adjusts to consumer demands.

Dividing up the subject

Economics is traditionally divided into two main branches – *macroeconomics* and *microeconomics*, where 'macro' means big and 'micro' means small.

Macroeconomics is concerned with the economy as a whole. It is concerned with *aggregate demand* and *aggregate supply*. By 'aggregate demand' we mean the total amount of spending in the economy, whether by consumers, by customers outside the country for our exports, by the government, or by firms when they buy capital equipment or stock up on raw materials. By 'aggregate supply' we mean the total national output of goods and services.

Microeconomics is concerned with the individual parts of the economy. It is concerned with the demand and supply of particular goods, services and resources such as cars, butter, clothes, haircuts, plumbers, accountants, blast furnaces, computers and oil.



Which of the following are macroeconomic issues, which are microeconomic ones and which could be either depending on the context?

- Inflation.
- Low wages in certain sectors.
- The rate of exchange between the pound and the euro.
- Why the prices of fresh fruit and vegetables fluctuate more than that of cars.
- The rate of economic growth this year compared with last year.
- The decline of traditional manufacturing industries.
- Immigration of workers.

Macroeconomics

Because scarcity exists, societies are concerned that their resources should be used *as fully as possible* and that over time their national output should grow.

Why should resources be used as fully as possible? If resources are 'saved' in one time period surely they can be used in the next time period? The answer is that not all resources can be saved. For example, if a worker doesn't go to work one week then that resource is lost: labour can't be saved up for the future.

Why do societies want growth? To understand this, think back to the discussion of endless wants: if our output grows, then more of our wants can be satisfied. Individuals and society can be made better off.

KI 1
p7

KI 1
p7

Definitions

Macroeconomics The branch of economics that studies economic aggregates (grand totals): e.g. the overall level of prices, output and employment in the economy.

Aggregate demand The total level of spending in the economy.

Aggregate supply The total amount of output in the economy.

Microeconomics The branch of economics that studies individual units: e.g. households, firms and industries. It studies the interrelationships between these units in determining the pattern of production and distribution of goods and services.

The achievement of growth and the full use of resources are not easy. This is demonstrated by periods of high unemployment and stagnation that have occurred from time to time throughout the world (for example, in the recessions of the 1930s, the early 1980s and the period following the financial crisis of 2007–8). Furthermore, attempts by governments to stimulate growth and employment can result in inflation and rising imports. Economies have often experienced cycles where periods of growth alternate with periods of recession, such periods varying from a few months to a few years. This is known as the ‘business cycle’.

Macroeconomic problems are closely related to the balance between aggregate demand and aggregate supply.

If aggregate demand is too *high* relative to aggregate supply, inflation and trade deficits are likely to result.

- **Inflation** refers to a general rise in the level of prices throughout the economy. If aggregate demand rises substantially, firms are likely to respond by raising their prices. If demand is high, they can probably still sell as much as before (if not more) even at the higher prices, and make higher profits. If firms in general put up their prices, inflation results. By comparing price levels between different periods we can measure the **rate of inflation**. Typically, the rate of inflation reported is the **annual** rate of inflation: the percentage increase in prices over a 12-month period.
- **Balance of trade** deficits are the excess of imports over exports. If aggregate demand rises, people are likely to buy more imports. So part of the extra spending will go on goods from overseas, such as Japanese TVs, Chinese computers, German cars, etc. Also, if the rate of inflation is high, home-produced goods will become uncompetitive with foreign goods. We are likely to buy more foreign imports and people abroad are likely to buy fewer of our exports.

If aggregate demand is too low relative to aggregate supply, unemployment and recession may well result.

- **Recession** is where output in the economy declines for two successive quarters or longer. In other words, during this period growth becomes negative. Hence, not all periods during which the economy contracts are termed ‘recessions’. It is the duration and persistence of the contraction that distinguishes a recession. Recessions are associated with low levels of consumer spending. If people spend less, shops are likely to find themselves with unsold stock. Then they will buy less from the manufacturers; they will cut down on production; and buy fewer capital goods such as machinery.
- **Unemployment** is likely to result from cutbacks in production. If firms are producing less, they will need to employ fewer people.

Macroeconomic policy, therefore, tends to focus on the balance of aggregate demand and aggregate supply. It can be

Definitions

Inflation A general rise in the level of prices throughout the economy

(Annual) Rate of inflation The percentage increase in the level of prices over a 12-month period.

Balance of trade Exports of goods and services minus imports of goods and services. If exports exceed imports, there is a ‘balance of trade surplus’ (a positive figure). If imports exceed exports, there is a ‘balance of trade deficit’ (a negative figure).

Recession A period where national output falls for two or more successive quarters.

Unemployment The number of people of working age who are actively looking for work but are currently without a job. (Note that there is much debate as to who should officially be counted as unemployed.)

Demand-side policy Government policy designed to alter the level of aggregate demand, and thereby the level of output, employment and prices.

Supply-side policy Government policy that attempts to alter the level of aggregate supply directly.

demand-side policy, which seeks to influence the level of spending in the economy. This in turn will affect the level of production, prices and employment. Or it can be *supply-side policy*. This is designed to influence the level of production directly: for example, by trying to create more incentives for firms to innovate.

Microeconomics

Microeconomics and choice

Because resources are scarce, choices have to be made. There are three main categories of choice that must be made in any society:

- *What* goods and services are going to be produced and in what quantities, since there are not enough resources to produce everything people want? How many cars, how much wheat, how much insurance, how many iPhones, etc. will be produced?
- *How* are things going to be produced? What resources are going to be used and in what quantities? What techniques of production are going to be adopted? Will cars be produced by robots or by assembly-line workers? Will electricity be produced from coal, oil, gas, nuclear fission, renewable resources such as wind farms or a mixture of these?
- *For whom* are things going to be produced? In other words, how will the country’s income be distributed? After all, the higher your income, the more you can consume of the total output. What will be the wages of shop workers, MPs, footballers and accountants? How much will pensioners receive? How much of the country’s income will go to shareholders or landowners?