


JOHN SLOMAN • DEAN GARRATT

Essentials of ECONOMICS

SEVENTH EDITION





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ESSENTIALS OF ECONOMICS

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Seventh edition

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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 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.

He is also the co-author with Alison Wride and Dean Garratt of *Economics* (Pearson Education, 9th edition 2015), with Dean Garratt, Jon Guest and Elizabeth Jones of *Economics for Business* (Pearson Education, 7th edition 2016) and with Elizabeth Jones of *Essential Economics for Business* (4th edition 2014). 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 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? (www.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.

Dean Garratt is a Principal Lecturer in Economics at Nottingham Business School (NBS), Assistant Head of Economics and the course leader for the School's MSc Economics programme. In 2014/15 Dean worked as a Principal Teaching Fellow in Economics at the University of Warwick having previously been at NBS from 2001, including a period as course leader for the undergraduate economics courses.

Dean teaches economics at a variety of levels to students both on economics courses and non-economics courses. 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.

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 Dean 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 helping to promote high-quality teaching practice. Dean has been involved in several projects promoting a problem-based 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, Dean won the student-nominated Nottingham Business School teacher of the year award.

Dean is an academic assessor for the Government Economic Service (GES). In this role he helps to assess potential recruits to the GES with particular focus on the ability of candidates to articulate their understanding of economics and its applications.

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

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Brief contents

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Detailed contents

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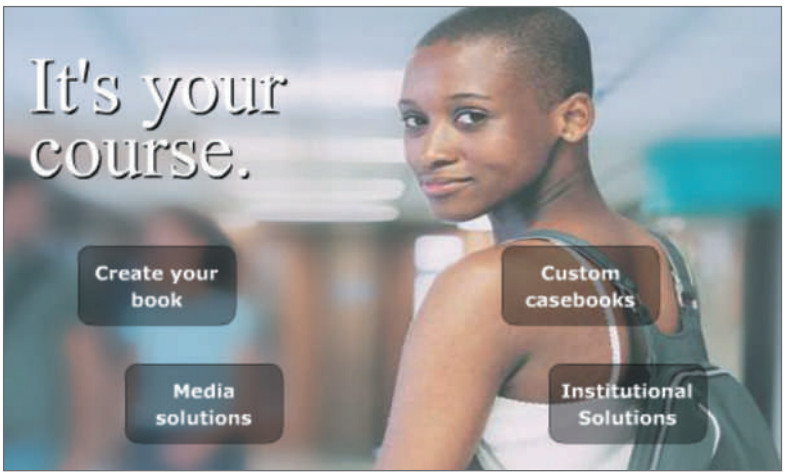

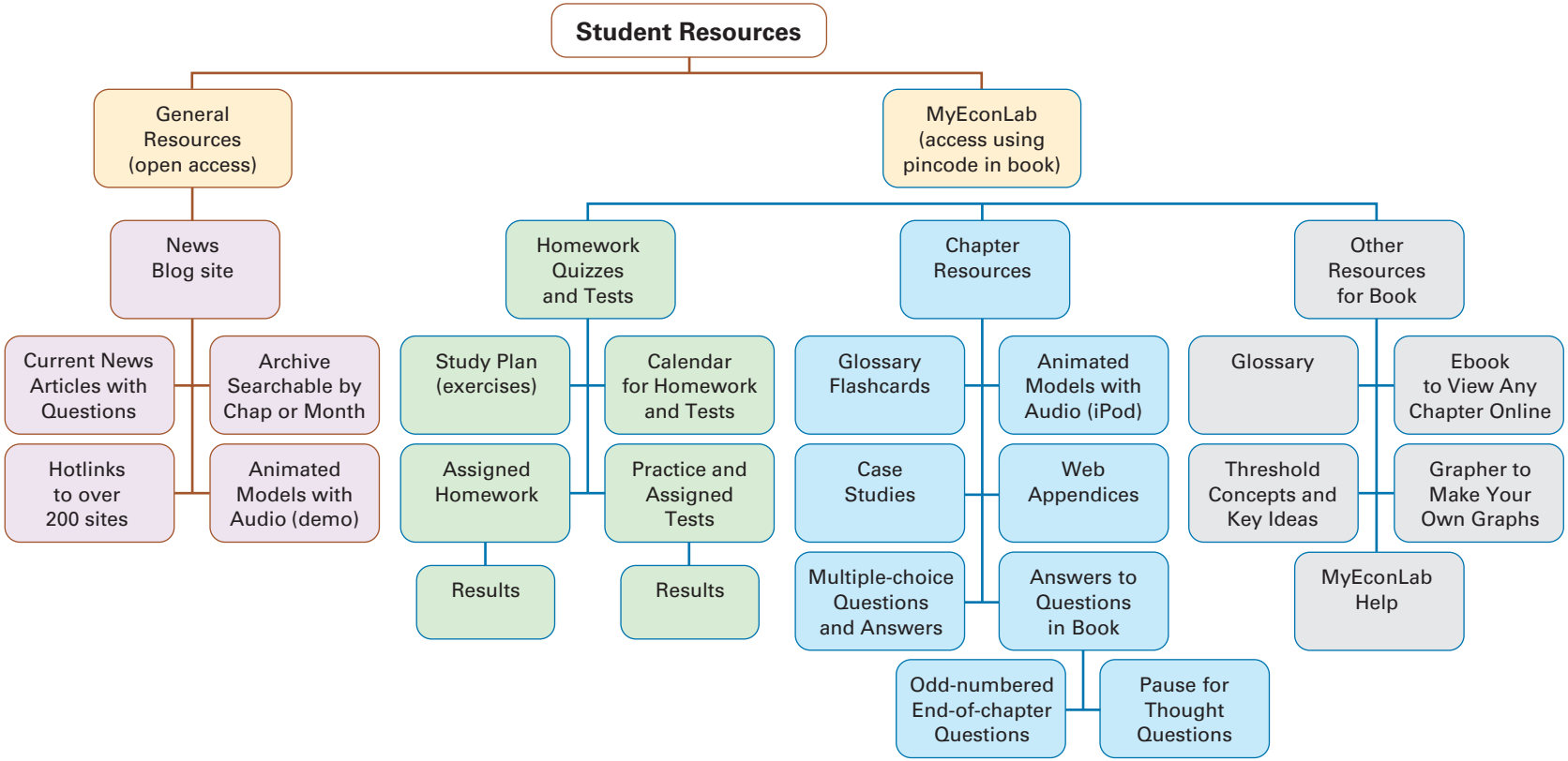
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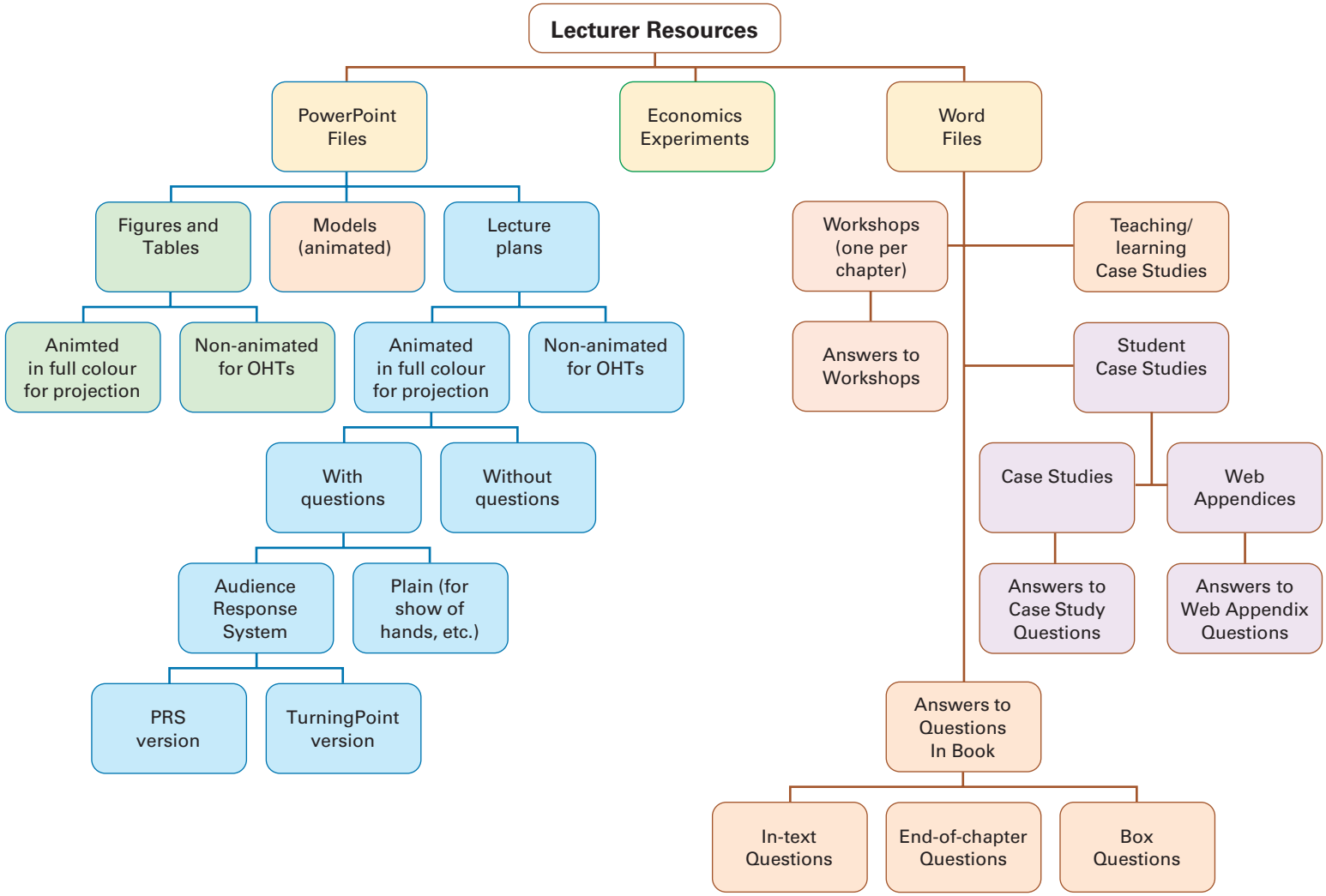
Lecturer Resources
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Animted in full colour for projection
Non-animated for OHTs
Animated in full colour for projection
Non-animated for OHTs
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Web Appendices
Audience Response System
Plain (for show of hands, etc.)
Answers to Case Study Questions
Answers to Web Appendix Questions
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Answers to Questions In Book
In-text Questions
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Preface

TO THE STUDENT

Welcome to this introduction to economics. Whether you are planning to study economics beyond this level, or whether this will be your only exposure to this fascinating subject, we hope that you will find the book enjoyable and that it will give you some insight into the economy in which you live and the economic forces that shape all our lives.

Although you have probably never studied the subject before, you will almost certainly know quite a lot of economics already. After all, you make economic decisions virtually every day of your life. Every time you go shopping, you are acting as an 'economist': deciding what to buy with your limited amount of money. And it is not just with decisions about buying that we act as economists. How much to work (something that students are increasingly forced to do nowadays), how much to study, even how much time to devote to various activities during the course of the day, are all, in a way, *economic* choices.

To satisfy us as consumers, goods and services have to be produced. We will therefore study the behaviour of firms and what governs the decisions that they make. How will the decisions of big businesses differ from those of small firms? How will the degree of competition affect the extent to which we gain or lose from the activities of firms?

In analysing economic choices we look at some of the big economic issues that face us all as members of society in the twenty-first century. Despite huge advances in technology, and despite the comfortable lives led by many people in the industrialised world, we continue to suffer from volatile economic growth, industrial change and unemployment and all the insecurity that these bring. We continue to witness poverty and inequality, and in many countries the gap between rich and poor has actually grown wider; our environment is polluted; our growing affluence as consumers is increasingly bought at the expense of longer hours at work and growing levels of stress.

We live in a highly interdependent world where actions have implications elsewhere. The banking crisis of the late 2000s and the subsequent effect on economies and the financial well-being of people, businesses and governments illustrates starkly how individual choices can have not only national but global effects.

So what can be done about these problems? This book seeks not only to analyse these problems but also to examine the sorts of policies that governments might pursue in their attempt to address them.

The book is designed with one overriding aim: to make this exciting and highly relevant subject as clear to understand as possible. To this end, the book has a number of important features:

- A direct and straightforward written style; short paragraphs to aid rapid comprehension. The aim all the time is to provide maximum clarity.
- A careful use of colour to guide you through the text and make the structure easy to follow.
- Key ideas highlighted and explained where they first appear. These ideas are key elements in the economist's 'toolkit'. Whenever they recur later in the book, an icon appears in the margin and you are referred back to the page where they are defined and explained. All the key ideas are gathered together at the beginning of the Glossary.
- Some of the key ideas are particularly important in affecting the way we see the world: they help us think like economists. We call these 'threshold concepts' and there are 15 of these.
- Clear chapter-opening pages, which set the scene for the chapter. They also highlight the issues that will be covered in the chapter and can thus be seen as 'learning objectives'.
- Summaries at the end of each section (rather than each chapter). These provide a very useful means of revising and checking your understanding as you progress.
- Definitions of all technical terms given at the foot of the page where the term is first used. The term itself is highlighted in the text.
- 'Pause for thought' questions integrated in the text. These are designed to help you reflect on what you have just read and to check on your understanding. Answers to all 'pause for thought' questions are given in MyEconLab.
- A comprehensive index, including reference to all defined terms. This enables you to look up a definition as required and to see it used in context.
- An alphabetical glossary at the end of the book. This gathers together all the defined terms.

- Plentiful use of up-to-date examples to illustrate the arguments. This helps to bring the subject alive and puts it in context.
- Review questions at the end of each chapter for either individual or class use.
- Answers to all odd-numbered questions are given in MyEconLab. These questions will be helpful for self-testing, while the even-numbered ones can be used for class testing.
- Many boxes (typically four to six per chapter) providing case studies, news items, applications, or elaborations of the text. The boxes are of two types: Case Studies and Applications; and Exploring Economics.
- A comprehensive set of web references at the end of each of the four parts of the book. Each reference is numbered to match those in the Web Appendix at the end of the book. You can easily access any of these sites from this book's own website (at http://www.pearsoned.co.uk/sloman). When you enter the site, click on **Hot Links**. You will find all the sites from the Web Appendix listed. Click on the one you want and the 'hot link' will take you straight to it.
- Appendices for most chapters appear in MyEconLab. These Web Appendices take the argument further than in the text and look at some more advanced theories. Whilst none of these is necessary for studying this book, and many courses will not refer to them, they provide the necessary additional material for more advanced courses that still require a short textbook.

Good luck with your studies, and have fun. Perhaps this will be just the beginning for you of a lifelong interest in economic issues and the economy.

TO LECTURERS AND TUTORS

This seventh edition of *Essentials of Economics* is an abridged version of *Economics,* 9th edition (John Sloman, Alison Wride and Dean Garratt). Some passages have been directly transcribed, while others have been extensively rewritten in order to provide a consistent coverage of the 'essentials' of economics. Like *Economics*, 9th edition, the book attempts to address the concerns expressed by many people since the financial crisis that the economics we teach to our students should reflect the real world and meet the needs of employers.

The book is designed specifically for one-semester courses in introductory economics. There are 14 chapters (1 introductory, 6 micro, 5 macro and 2 international), each providing about a week's worth of reading. The book is also ideal for year-long courses that are designed for those not going on to specialise in economics, or where economics is only a subsidiary component at level 2.

Naturally, in a one-semester course, or in courses for non-specialists, tutors cannot hope to cover all the principles of economics. Thus some things have had to go. The book does not cover indifference curves or isoquants. The analysis of costs is developed with only an informal reference to production functions. Distribution theory is confined to the determination of wage rates. In macroeconomics, *IS/LM* analysis has been left out, as have some of the more advanced debates in monetary and exchange rate theory. In addition, many passages have been simplified to reflect the nature of courses on which the book is likely to be used. The result is a book that is approximately half the length of *Economics*, 9th edition.

Suggestions for longer or more advanced courses

If you want to use this book on more rigorous courses, most chapters have one or more Web Appendices. These introduce students to more advanced models, such as indifference analysis, isoquant analysis, general equilibrium in both a closed and an open economy, *IS/LM* and *IS/MP* analysis, the full money multiplier, and trade creation and diversion. You can use any or all of them to fit your course.

The book is also ideal for the new economics A-level syllabuses of the various boards.

The book as also highly suitable for courses, such as HND, where the economic environment component is part of a larger module.

Extensive revision

In bringing economics alive and applying economic ideas and principles to the real word, the seventh edition of *Essentials of Economics* contains a great deal of applied material. Consequently, there have been considerable revisions from the previous editions to reflect contemporary issues, debates and policy interventions. In particular, this has meant further extensive updating of the macroeconomic chapters. However, the exciting debates around the discipline and the teaching of economics have meant a reworking of the microeconomic chapters too. Specifically, you will find that:

- Many of the boxes are new or extensively revised.
- There are many new examples given in the text.
- All tables and charts have been updated, as have factual references in the text.
- Economic analysis and debate has been strengthened and revised at various points in the book in light of economic events and developments in economic thinking.
- There is further discussion around behavioural economics and the insights that it offers across both the micro and macro chapters.
- We have extended the analysis throughout the book on the significance of financial well-being and balance sheets on economic choices and outcomes.

- The sections on money and banking, and fiscal and monetary policies have been further strengthened given the continuing issues around financial institutions and the state of governments' finances.
- We have significantly extended the analysis on the euro and its future.
- All policy sections have been thoroughly revised to reflect the changes that have taken place since the last edition allowing us to consider the array of challenges that national and global policy-makers face in the 2010s.
- Most importantly, every part of the book has been carefully considered, and if necessary redrafted, to ensure both maximum clarity and contemporary relevance.

The book also contains 36 'key ideas' and these are highlighted and explained when they first appear. These fundamental concepts provide a 'toolkit' for students. 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. Showing how these ideas can be used in a variety of contexts helps students to relate the different parts of the subject to each other. Fifteen of these concepts are given the special status of 'Threshold Concepts'. Understanding and being able to use these concepts, such as opportunity cost, help students to 'think like an economist'. Each of these concepts is explained in detail in MyEconLab.

We hope that your students will find this an exciting and interesting text that is relevant to today's issues.

SUPPLEMENTS

MyEconLab for students

MyEconLab provides a comprehensive set of online resources. If you have purchased this text as part of a pack, then you can gain access to MyEconLab by following the instructions to register the access code included on the enclosed access card. If you've purchased this text on its own, then you can purchase access online at www.myeconlab.com. See Getting Started with MyEconLab in the 'Guided Tour' area of this text for more details.

MyEconLab provides a variety of tools to enable you to assess your own learning. A personalised Study Plan identifies areas to concentrate on to improve grades, and specific tools are provided to enable you to direct your studies in a more efficient way.

In addition, there are many other resources in MyEconLab to support your learning. These include:

- Detailed descriptions of each of the fifteen threshold concepts and just why understanding and using each concept helps to transform the way you can approach the analysis of economic issues.
- Animations of key models with audio explanations. These 'talk you through' the models in an attractive way. You can stop, start and replay the animations to make notes and aid your understanding.
- Sloman Economics News: a news blog with news items added several times each month, with introductions, links to newspaper and other articles and to relevant data, questions for use in class or for private study, and references to chapters in the book. You can search the extensive archive by chapter or keyword.
- More than 200 case studies with questions for self-study, ordered chapter by chapter and referred to in the text.
- 25 Web Appendices. As explained above, these take the theoretical arguments further than in the text and are suitable for more advanced courses.
- Updated list of over 250 hot links to sites of use for economics, with references at the end of each Part of the book to specific sites.
- Glossary flashcards. These help you to learn and test your knowledge of all the defined terms in the book.
- Answers to all in-chapter questions.
- Answers to odd-numbered, end-of-chapter questions.
- An ebook, which enables you to access the book anywhere with an internet connection.

Note that Sloman Economics News and hotlinks can also be accessed directly from http://pearsonblog.campaignserver.co.uk/. See the Guided Tour for more details.

MyEconLab for lecturers and tutors

MyEconLab can be set up by you as 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:

- My EconLab'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.
- Questions are generated algorithmically so they use different values each time they are used.
- You can create your own exercises by using the econ exercise builder.

Contact your local Pearson representative to gain access.

Additional resources for lecturers and tutors

There are many additional resources for lecturers and tutors that can be downloaded from the lecturer site of MyEconLab. These have been thoroughly revised for the seventh edition. These include:

- PowerPoint® slide shows 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 slideshows:
  - *All figures from the book and most of the tables*. Each figure is built up in a logical sequence, thereby allowing tutors to show them in lectures in an animated form.
  - *A range of models*. Each one builds up in around 20 to 80 screens.
  - *Customisable lecture plans*. These are a series of bullet-point lecture plans. 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. They come in various versions:
    - Lecture plans with integrated diagrams. These lecture plans include animated diagrams, charts and tables at the appropriate points.
    - Lecture plans with integrated diagrams and questions. These are like the above but also include multiple-choice questions, allowing lectures to become more interactive. They can be used with or without an audience response system (ARS). ARS versions are available for InterWrite PRS® and TurningPoint® (in two TurningPoint versions) and are ready to use with appropriate 'clickers' or students' own internet-enabled devices, such as smartphones, laptops or tablets.
    - Lecture plans without the diagrams. These allow you to construct your own on the blackboard or whiteboard, or using a visualiser or OHP.

    Note that these lecture plans are organised by chapter for ease of use. It is not intended that the whole PowerPoint is shown in a single lecture.
- Case studies. These, also available in the student part of MyEconLab, can be reproduced and used for classroom exercises or for student assignments. Answers are also provided (not available on the student site).
- Workshops. There are 14 of these – one for each chapter. They are in Word® and can be reproduced for use with large groups (up to 200 students) in a lecture theatre or large classroom. In A-level classes, they can be used as worksheets, either for use in class or for homework. Suggestions for use are given in an accompanying file. Answers to all workshops are given in separate Word® files.
- Teaching/learning case studies. There are 20 of these. They examine various approaches to teaching introductory economics and ways to improve student learning.
- Answers to all end-of-chapter questions, pause for thought questions, questions in boxes, questions in Web Cases and Web Appendices and to the 14 workshops. As these are in Word files, you can print them off for students or post them on your VLE or intranet.

ACKNOWLEDGEMENTS

As with previous editions, we owe a debt to various people. A special thanks to Peter Smith from the University of Southampton for authoring the MyEconLab questions and tests. Thanks to the team at Pearson Education, and especially to Kate Brewin, who has been a tremendous help and support at every stage of revising the book. Thanks also to Tim Parker, Louise Hammond and Zoe Smith for all the work they have put in to producing the book and its supplements. Thanks too to the many users of the book who have given us feedback. We always value their comments.

John: I continue to owe a huge debt to my family, and especially my wife and soulmate Alison, whose love and support have made this and previous editions possible. She is remarkably patient and tolerant of my long hours at the computer. And many thanks once again to Dean, whose ideas and enthusiasm have been fantastic. It's been great to work together.

Dean: A special thank you must go to Patricia, my very special Warwickshire bear! She is an absolute rock and remains incredibly supportive to this Leicestershire fox. I would like to thank my parents for all their love and support, particularly in supporting me through university. Finally, thanks to John for again inviting me to be involved on this project and sharing with me a desire that we communicate the relevance and applicability of economics.

Publisher's acknowledgements

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Figures

Figure 8.A2 UK GDP: 2013, Annual Abstract of Statistics, 2013 (National Statistics (2014), Office for National Statistics licensed under the Open Government Licence v.3.0, www.ons.gov.uk.

Tables

Table on page 45 after IMF Primary Commodity Prices (IMF) and World Economic Outlook Database (IMF), April 2015; Tables 3.1, 3.2 from *Intermediate Microeconomics*, 11th ed., South Western College Publishing, a division of Cengage Learning (Nicholson, W. and Snyder, C. 2011); Table on page 78 from *World Population Prospects:* The 2012 Revision (United Nations, Department of Economic and Social Affairs), http://esa.un.org/unpd/wpp/, reprinted with the permission of the United Nations; Tables on pages 152 and 153 from Annual Survey of Hours and Earnings (National Statistics 2014) Office for National Statistics licensed under the Open Government Licence v.3.0, www.ons.gov.uk; Table 6.1 The effects of taxes and benefits on household income, 2014/15 – Reference Tables, Table 26 (National Statistics, 2015), adapted from data from the Office for National Statistics licensed under the Open Government Licence v. 3.0, www.ons.gov.uk; Table 6.2 from Family Spending, Tables A39 and A44 (National Statistics, 2014), Office for National Statistics licensed under the Open Government Licence v.3.0, www.ons.gov.uk; Table 6.3 from Wealth and Assets Survey (National Statistics, 2014), Office for National Statistics licensed under the Open Government Licence v.3.0, www.ons.gov.uk; Table 8.1 from National Accounts Estimates of Main Aggregates (United Nations Statistics Division), © (2015) United Nations. Reprinted with the permission of the United Nations, http://unstats.un.org; Tables 8.A1 and 8.A2 from United Kingdom National Accounts (National Statistics), Office for National Statistics licensed under the Open Government Licence v.3.0, www.ons.gov.uk, accessed 2015; Table 10.5 from Statistical Interactive Database (Bank of England), www.bankofengland.co.uk/boeapps/iadb/, accessed 2 March 2015; Tables on page 371 from International Trade Statistics, 2014, © World Trade Organization (WTO), www.wto.org; Table 14.1 from Balance of Payments, Quarter 4 and Annual 2014 (Office for National Statistics, 2015), Office for National Statistics licensed under the Open Government Licence v.3.0, www.ons.gov.uk; Table 14.5 from HIPC At-A-Glance Guide (International Monetary Fund, Autumn 2014), www.imf.org.

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Part A

Introduction

Chapter 1

Economic issues

You may never have studied economics before, and yet traditional and social media are full of stories relating to the economy and to particular economic issues. Consequently, we are continually being made aware of local, national and international economic issues: whether it be price increases (or sometimes decreases), new products on the market, the effects of globalisation, interest rate changes, fluctuations in exchange rates, unemployment, economic recessions, the stability of the banking system or the state of the government's finances.

An important reason for the interest in economics is that as individuals we are continually faced with economic problems and decisions of our own. What should I buy in the supermarket? 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?

Yet while these and other economic issues are relevant to so much that affects our daily lives, the events following the financial and economic crisis of the late 2000s have undoubtedly increased the interest in economics and the views of economists. The magnitude of this crisis and its subsequent effects mean that anybody studying economics is doing so in incredibly interesting, if not turbulent, times. It also means that there is considerable debate among economists about the discipline, including questions around the way economists study economic issues and around the economics curriculum in schools, colleges and universities.

So just what is economics about? In this introduction we will attempt to answer this question and to give you some insights into the subject you will be studying by using this book.

We will also see how the subject is divided up, and in particular we will distinguish between the two major branches of economics: microeconomics and macroeconomics.

After studying this chapter, you should be able to answer the following questions:

- What is economics about?
- What is the central economic problem faced by all individuals and societies?
- How can people set about making the best of their limited resources?
- What is meant by 'opportunity cost'? How is it relevant when people make economic choices?
- What is the difference between microeconomics and macroeconomics?
- How can you represent simply economic relationships in a graph?
- How do different economic systems tackle the problem of scarcity?

We conclude by considering alternative ways in which economies are run. How would they work if all decisions were taken by the government or, at the other extreme, if they relied totally on the decisions of households and firms? How, in practice, are individual decisions influenced by the government?

At this point it's worth drawing your attention to the Economics News site that accompanies this book. You can access it directly at http://pearsonblog.campaignserver.co.uk/ or from MyEconLab's home page, or simply Google 'Sloman Economics news site'. The site shows how items in the news are related to the economic issues you will be studying in this book. There are links to newspaper articles, videos, data sources and reports. There are questions for you to consider and a powerful search feature that lets you browse earlier articles by chapter of the book, month and keywords.

1.1 ENGAGING WITH ECONOMICS

Is economics relevant to me?

Economics provides us with important insights into addressing not only some of the most important questions societies face but also much 'smaller' questions: ones that affect all of us. To help illustrate the sorts of questions that economists analyse we begin with a flight of fancy.

An island economy

Assume that we wake up tomorrow charged with running an island economy. Once we get over the initial excitement, we might begin to appreciate it's not going to be all palm trees and days by the pool. An economy has people who need to eat, be housed and will need access to healthcare. It may have other islands, nearby, who are friendly and want to trade – or who are not friendly and may want to invade.

Being in charge suddenly seems to involve quite a few decisions. We have choices to make. 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?

Of course, we are never actually going to be parachuted in to be in charge of an island, 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. Important choices have to be made. We will look at the role of government throughout this book: decisions that need to be taken, different approaches to solving economic problems, and what happens when governments need to work together.

Economic puzzles and issues

From our discussion of the island economy you will have got a sense that economists study choices which, in one way or another, are related to consumption and production – a theme we will develop further in this chapter. Consequently, economists look at a wide variety of economic puzzles and issues. Let's take a look at some specific examples which you might find interesting.

A pay rise

Do you work? By which we mean, do you work for money? If so, note down 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 Chapter 6 that governments might be interested too.

Information and decision making

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 looking at decisions. In deciding whether to take a particular job and how many hours to work, you will need to have all sorts of

information: rates of pay, what hours are offered, what the job is actually like, what you'll have to wear. You can probably think of at least three or four other things just on this decision. If you are going to make a 'good' decision you need 'good' information.

Of course, having information is going to affect your decision making: that's the whole point. So let's imagine you are choosing whether or not to see a film that has just been released. You can get information about the plot, the actors, the special effects, the rating, etc. You can also read opinions of critics and reviewers on the quality of the film. Hopefully all this information will help you decide 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? Would that be a useful piece of information? How would it change your decisions every day? Would you behave differently right away? Does your answer depend on who gives the information? You might be more inclined to believe a doctor or 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 too much and 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 are concerned with individual decisions 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 8 onwards, looks at 'whole economy' economics, so let's identify an issue in that area.

How much do you save? The answer will depend on your income, your spending habits and probably on something that's hard to pin down, but really is about how 'good' you are at saving.

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 receive interest, which gives us additional income.

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 all are 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 left 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.

So now let's imagine the opposite situation where, instead of saving only a little bit, you saved a great deal 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 no one is spending much, what will happen? Businesses will very quickly be in trouble. The banks will be full of our savings, but no one will be borrowing. Spending will therefore be low and firms won't be able to make profits. We will have lots of security in the form of future spending, but an economy that is in recession and very soon could be in crisis.

Of course this is an exaggerated example. But you can see the puzzle: saving is good, but so is spending. What should we do? What should the government encourage us to do?

1.2 THE ECONOMIC PROBLEM

What is economics all about?

From reading Section 1.1 you should have got a sense that economics involves an analysis of decision making by individuals, businesses, governments and countries. These are decisions concerned with the following:

- The **production** of goods and services: how much the economy produces; what particular combination of goods and services; how much each firm produces; what techniques of production it uses; how many people it employs.
- The **consumption** of goods and services: how much the population as a whole spends (and how much it saves); what the pattern of consumption is in the economy; how much people buy of particular items; what particular individuals choose to buy; how people's consumption is affected by prices, advertising, fashion and other factors.

But we still have not quite got to the bottom of what economics is about. What is the crucial ingredient that

makes a problem an *economic* one? The answer is that there is one central problem faced by all individuals and all societies. From this one problem stem all the other economic problems we shall be looking at throughout this book.

This central economic problem is *scarcity*. This applies not only in poor countries, but also in the UK, the USA, Japan, France and throughout the world. For an economist, scarcity has a very specific definition. Let's examine that definition.

The problem of scarcity

Ask people if they would like more money, and the vast majority would answer 'yes'. They want more money so that they can buy more goods and services; and this applies not only to poor people but also to most wealthy people too. The point is that human wants are virtually unlimited.

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

- Human resources: **labour**. The labour force is limited both in number and in skills.
- 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 been produced in the first place. The world has a limited stock of capital: a limited supply of factories, machines, transportation and other equipment. The productivity of capital is limited by the state of technology.

So here is the reason for scarcity: human wants are virtually unlimited, whereas the resources available to satisfy these wants are limited. We can thus define **scarcity** as shown in the box.

KEY IDEA 1

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

Of course, we do not all face the problem of scarcity to the same degree. A poor person unable to afford enough to eat or a decent place to live will hardly see it as a 'problem' that a rich person cannot afford a second Ferrari. 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 and products are *distributed*, whether between different individuals, different regions of a country or different countries of the world.

Pause for thought

If we would all like more money, why doesn't the government simply print a lot more?

But given that people, both rich and poor, want more than they can have, this makes them *behave* in certain ways. Economics studies that behaviour. It studies people at work, producing the goods that people want. It studies people as consumers buying the goods they themselves want. It studies governments influencing the level and pattern of production and consumption. In short, it studies anything to do with the process of satisfying human wants.

Demand and supply

We said that economics is concerned with consumption and production. Another way of looking at this is in terms of *demand* and *supply*. In fact, demand and supply and the relationship between them lie at the very centre of economics. But what do we mean by the terms, and what is their relationship with the problem of scarcity?

Demand is related to wants. If goods and services were free, people would simply demand whatever they wanted. Such wants are virtually boundless, perhaps limited only by people's imagination. *Supply*, on the other hand, is limited. It is related to resources. The amount firms can supply depends on the resources and technology available.

Given the problem of scarcity, given that human wants exceed what can actually be produced, *potential* demands will exceed *potential* supplies. Society therefore has to find some way of dealing with this problem. Somehow it has to try to match demand and supply. This applies at the level of the economy overall: total spending in the economy must balance total production. It also applies at the level of individual goods and services. The demand and supply of cabbages must balance, and so must the demand and supply of smartphones, cars, houses and package holidays.

KI 1 p 5

Definitions

Production The transformation of inputs into outputs by firms in order to earn profit (or 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.

But if potential demand exceeds potential supply, how are *actual* demand and supply to be made equal? Either demand has to be curtailed, 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.

Recap

1. The central economic problem is that of scarcity.
2. Given that there is a limited supply of factors of production (labour, land and capital), it is impossible to provide everybody with everything they want.
3. Potential demands exceed potential supplies.

1.3 DIVIDING UP THE SUBJECT

What's meant by 'macroeconomics' and 'microeconomics'?

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 thus 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 and services and resources: cars, butter, clothes and haircuts; electricians, shop assistants, blast furnaces, computer chips and oil.

Macroeconomics

KI 1 p5

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

The achievement of growth and the full use of resources is not easy, however, as demonstrated by the periods of high unemployment and stagnation that have occurred from time to time throughout the world – for example, in the 1930s, the early 1980s, the early 1990s and the late 2000s. Furthermore, attempts by government to stimulate growth and employment have often resulted in inflation and a large rise in imports. Even when societies do achieve growth, it can be short-lived. Economies are inherently unstable and display what are known as business cycles: periods of high growth followed by periods of low or even negative growth.

Macroeconomics, then, studies the determination of national output and its growth over time. It also studies the problems of recession, unemployment, inflation, the balance of international payments and cyclical instability, and the policies adopted by governments to deal with these problems.

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 balance of 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. After all, if demand is high they can probably still sell as much as before (if not more) even at the higher prices, and thus make more profit. If firms in general put up their prices, inflation results.
- **Balance of trade deficits** are the excess of imports over exports. If aggregate demand rises, people are likely

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.

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).

to buy more imports. In other words, part of the extra expenditure will go on Japanese electrical goods, German cars, Chilean wine, and so on. Also if inflation is high, home-produced goods will become uncompetitive with foreign goods. We are likely, therefore, 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 defined as a decline in the output of an economy (negative growth) for two or more consecutive quarters. A recent example was the decline in UK output for five consecutive quarters from the second quarter of 2008. During this period the UK economy shrank by 6 per cent. Recessions are associated with low levels of consumer spending, perhaps because of a reduction in the amount of credit advanced by financial institutions to consumers, as was the case following the financial crisis of the late 2000s, or because of worries about job security. If people spend less, shops are likely to find themselves with unsold stocks. As a result they will buy less from the manufacturers, which in turn will cut down on production.
- **Unemployment** is likely to result from cutbacks in production. If firms are producing less, they will need to employ fewer people.

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

KI 1 p 5

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? How many cars, how much wheat, how much insurance, how many rock concerts, 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 or a mixture of these?
- *For whom* are things going to be produced? In other words, how will the nation's income be distributed? After all, the higher your income, the more you can consume of the nation's output. What will be the wages of farm workers, printers, cleaners and accountants? How much will chief executives of large companies receive? How much will pensioners receive? How much of the nation's income will go to shareholders or landowners?

All societies have to make these choices, whether they be made by individuals, by groups or by the government. These choices can be seen as *micro*economic choices, since they are concerned not with the *total* amount of national output, but with the *individual* goods and services that make it up: what they are, how they are made, and who gets the incomes to buy them.

Choice and opportunity cost

Choice involves sacrifice. The more food you choose to buy, the less money you will have to spend on other goods. The more food a nation produces, the less resources there will be for producing other goods. In other words, the production or consumption of one thing involves the sacrifice of alternatives. This sacrifice of alternatives in the production (or consumption) of a good is known as its **opportunity cost.**

KEY IDEA 2 TC 1

The opportunity cost **of something is what you give up to get it/do it.**

If the workers on a farm can produce either 1000 tonnes of wheat or 2000 tonnes of barley, then the opportunity cost of producing 1 tonne of wheat is the 2 tonnes of barley forgone. The opportunity cost of buying a textbook is the new pair of jeans you also wanted that you have had to go without. The opportunity cost of working overtime is the leisure you have sacrificed.

Definitions

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

Unemployment The number of people 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.

Opportunity cost The cost of any activity measured in terms of the best alternative forgone.

BOX 1.1 MACROECONOMIC ISSUES

An historical perspective

Macroeconomics is often characterised by lively debates. These debates reflect differences among economists over how economies work and how the ***transmission mechanisms*** of economic policy operate. Transmission mechanisms describe how policy changes, such as those to interest rates or government spending, impact on economic outcomes, such as output and inflation.

Understandably, the focus of macroeconomic debates is affected by the macroeconomic issues of the time. It is not surprising that many of the debates and advancement of ideas have arisen because existing theories appeared unable to explain the prevailing macroeconomic conditions. Sometimes this has resulted in relatively small incremental changes to theory and to policy, but on other occasions very different views of how economies work have come to the fore and, as a result, policy has been radically reshaped.

In short, a historical perspective helps us to understand both the focus and development of macroeconomic debates. The chart shows the path of a selection of key macroeconomic indicators for the UK since 1900.

Macroeconomics in the 1920s and 30s

Macroeconomics as a separate branch of economics had its birth with the mass unemployment experienced in the 1920s and 1930s. The old 'classical theories' of the time essentially said that free markets, i.e. economies with little government intervention (see Section 1.4), would provide a healthy economy with *full* employment. But such analysis seemed totally at odds with the facts.

A new analysis of the economy – one that *did* offer solutions to mass unemployment – was put forward by the economist John Maynard Keynes. His book *The General Theory of Employment, Interest and Money,* published in 1936, saw the dawn of 'Keynesian economics'. Keynes advocated active intervention by governments, in particular through changes in government spending and taxation to affect aggregate demand (total spending). This type of policy response is known as ***fiscal policy.*** By carefully managing the total demand for goods and services in the economy, the government could prevent mass unemployment on the one hand, or an 'overheated' economy with unsustainable growth and high inflation on the other.

The development of macroeconomics after the Second World War

After the Second World War, governments around the world adopted Keynesian demand-management policies; and they seemed to be successful. The 1950s and 1960s were a period of low inflation, low unemployment and relatively high economic growth. Macroeconomists were largely concerned with refining Keynesian economics.

In the 1970s, however, the macroeconomic consensus broke down. As we can see from the chart, unemployment rose while the rate of inflation rose and growth slowed down. Macroeconomic debates became increasingly lively with different 'schools of thought' having their own explanations of what was going wrong, and each had its own solutions to the problems.

Then, as the macroeconomic environment generally improved in the 1990s, so increasingly common ground began to emerge with a fusion of ideas.

Macroeconomics since the financial crisis of 2007/8

Then, with the financial crisis of the late 2000s and the subsequent global economic downturn and deterioration of government finances (see Box 1.4), debates among economists again intensified. These were mirrored by the debates among politicians and policy makers.

In many ways, the debates of the late 2000s and early 2010s were a microcosm of much of the preceding 100 years. Consequently, many familiar questions were once again being asked, not least those concerning the role that governments should play in modern, developed economies. Are macroeconomic problems the result of too much or too little government intervention?

Some disagreement among economists is probably inevitable given the seriousness of the issues being debated. However, there exist some areas of broad

Opportunity cost as the basis for choice is a key idea. But it is more than that. It is also the first of our 'Threshold Concepts' (click on the Threshold Concepts link in MyEconLab for a detailed explanation of each one). There are 15 of these threshold concepts, which we shall be exploring throughout the book. Each of them keeps recurring in a variety of different contexts.

Once you have grasped these concepts and seen their significance, they will affect the way that you understand and analyse economic problems. They help you to 'think like an economist'.

Rational choices

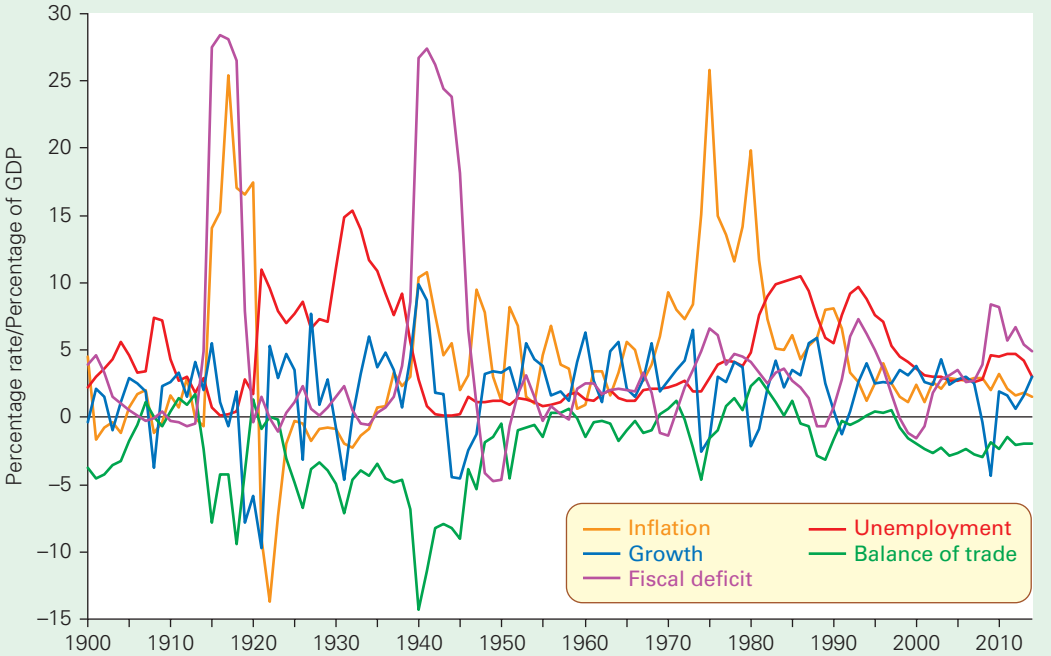
When trying to understand behaviour economists typically start by assuming 'rational decision-making'. Consequently, they often refer to **rational choices.** This simply means the weighing-up of the *costs* and *benefits* of any activity, whether it be firms choosing what and how much to produce, workers choosing whether to take a particular job or to work extra hours, or consumers choosing what to buy.

Definition

Rational choices Choices that involve weighing up the benefit of any activity against its opportunity cost.

EXPLORING ECONOMICS

UK macroeconomic indicators from 1900



Notes: (i) Inflation is the annual rate of change in the GDP deflator; (ii) Unemployment rate is based on administrative/claimant count rates; (iii) Growth is the annual growth in constant-price GDP; (iv) Balance of trade as % of GDP; and (v) Fiscal deficit is public sector net borrowing as a % of GDP

Source: Based on data from Bank of England available at http://www.bankofengland.co.uk/research/Pages/onebank/threecenturies.aspx and National Statistics (Various)

agreement among many macroeconomists over the causes of macroeconomic problems and the appropriate policies to deal with them.

Therefore, particularly through the second half of the book, we will be identifying areas not only where disagreement remains, but where there is more agreement.

Use the chart to compose a short report on the patterns observed in these key macroeconomic indicators in the UK since 1900.

Definitions

Transmission mechanism The process by which a change in a policy instrument (such as interest rates or taxation) affects economic outcomes (such as inflation or unemployment).

Fiscal policy Changes made to government spending and/or taxation in order to affect total spending and thereby the level of economic activity.

Imagine you are doing your shopping in a supermarket and you want to buy a bottle of wine. Do you spend a lot of money and buy a top-quality French wine, or do you buy a cheap Eastern European one instead? To make a rational (i.e. sensible) decision, you will need to weigh up the costs and benefits of each alternative. The top-quality wine may give you a lot of enjoyment, but it has a high opportunity cost: because it is expensive, you will need to sacrifice quite a lot of consumption of other goods if you decide to buy it. If you buy the cheap bottle, however, although you will not enjoy it so much, you will have more money left over to buy other things: it has a lower opportunity cost.

TC 1 p 7

Thus rational decision making, as far as consumers are concerned, involves choosing those items that give you the best value for money: i.e. the *greatest benefit relative to cost*.

The same principles apply to firms when deciding what to produce. For example, should a car manufacturer open up another production line? A rational decision will again involve weighing up the benefits and costs. The benefits are the revenues that the firm will earn from selling the extra cars. The costs will include the extra labour costs, raw material costs, costs of component parts, etc. It will be profitable to open up the new production line only if the revenues earned exceed the costs entailed: in other words, if it adds to profit.