

Chapter 1

Macroeconomics: the big picture

Chapter outline

- Introduction
- Thinking like a macroeconomist
- Science, values and ethics

Learning objectives

After studying the material in this chapter, students should be able to:

- 1 define macroeconomics
- 2 compare macroeconomics with microeconomics
- 3 see that macroeconomic analysis can help decision making by individuals, governments and firms
- 4 describe the role of macroeconomic models in economic analysis
- 5 differentiate between normative economics and positive economics
- 6 draw connections between macroeconomics and some broader social goals.

Suggestions for teaching

- Start by asking students to write down an issue which they think belongs to the study of macroeconomics. Write down all the issues raised in the class on an overhead transparency and examine why each issue is, or is not, a macroeconomic issue.
- Discuss some recent examples of macroeconomic issues, such as the global financial crisis (GFC) in 2008, the Greek sovereign debt and US fiscal cliff in 2012, and, more recently, the Cypriot banking crisis in 2013.
- Perhaps initiate a brief discussion on Australia's macroeconomic performance over the last 12 months as a starter for the entire course.
- The 'Economist's toolkit' (see page 372 of the text) covers key concepts that students should be aware of when interpreting economic data and models. Topics covered include economic variables, correlation and causation, and interpreting graphs.
- Reiterate the importance of the *ceteris paribus* assumption in economic analysis. Also, mention that this assumption is made to help us to understand how the real world works, not to try to describe the real world.

Discussion points

- Students often mix up the difference between positive economics and normative economics. One way to avoid such confusion is to go over real-life examples. For example, ask students whether the statement 'I paid \$30 000 in income taxes for the period 2012-13' is a positive economics or normative economics statement. How about 'I think the income tax rate is too high'? The first statement is a positive economics statement, as it is verifiable. However, the second statement is a personal opinion, which is unverifiable, and thus, it is a normative economics statement.
- Ask students the following question: 'Should the government stop live cattle export?' One way to narrow down the discussion is to ask students to list the pros and cons of live cattle export and link them to the role of the government. For example, if the consensus in the class is that live cattle export should be banned, then the government may need to compensate or subsidise those farmers affected by the decision. However, this could also mean that the students are in favour of a big government, since stopping live cattle export is an example of government intervention.
- Briefly discuss the various methods used to calculate GDP and inflation, and the role of the Reserve Bank of Australia (RBA) and international organisations such as the European Central Bank (ECB) and the International Monetary Fund (IMF).

Online resources

- The popular YouTube music clip 'Fear the Boom and Bust' nicely summarises key debates in macroeconomics, and should help students find these debates less dry. <http://www.youtube.com/watch?v=d0nERTFo-Sk>
- This transcript of a speech delivered by the Chairman of the Productivity Commission, Gary Banks, provides an interesting insight into the interconnectedness between the market and the government. <http://www.pc.gov.au/speeches/20091130-markets-how-free>
- The RBA's inflation calculator is an interesting tool for looking at the change in cost of representative purchases over time. www.rba.gov.au/calculator/
- The Australian Bureau of Statistics (ABS) has kept detailed macroeconomic data on Australia since 1900. www.abs.gov.au
- Students can visit <http://www.imf.org/external/about.htm> to learn about the roles of the IMF and how the organisation is helping to stabilise the Cypriot banking crisis.
- Encourage students to refer to the online audio summaries for this textbook for a summary of this chapter's key points and learning objectives.

Suggested solutions for end-of-chapter ‘Review the basics’

1 What is the difference between microeconomics and macroeconomics?

Suggested solution:

Microeconomics is the branch of economics that examines individual decision making by firms and households, and the way in which these decisions interact in specific industries and markets. In contrast, macroeconomics is the branch of economics that examines the workings and problems of the economy as a whole.

2 How do economic models differ from the economic phenomena they explain?

Suggested solution:

Economic models are simplified versions of reality used to analyse real-world economic situations. They are different from the economic phenomena they explain in that economic models work on the premise of the *ceteris paribus* assumption.

3 What is the difference between positive and normative economics?

Suggested solution:

Positive economics describes how the economy in fact works. In contrast, normative economics is about debating our goals and preferred economic outcomes.

4 How do economists use the *ceteris paribus* assumption?

Suggested solution:

Economists use the *ceteris paribus* assumption to develop economic models. By ‘holding all things constant’, the *ceteris paribus* assumption makes analysis more manageable, allowing economists to focus on the effects of a specific hypothetical change.

Suggested solutions for end-of-chapter ‘Questions and problems’

- 1 Rank the following from the most clearly microeconomic disturbance to the most clearly macroeconomic.
 - a. There is a boom in residential construction in Sydney.
 - b. The Chinese economy collapses due to political unrest.
 - c. Cheaper domestic airfares encourage increased travel by Australians.
 - d. You win \$1 million in a lottery.

Suggested solution:

The ranking is D, C, A, and B.

Note on questions 2 to 5:

These questions relate to the positive–normative distinction. The meaning of the terms ‘positive’ and ‘normative’ is contested by philosophers, so there may be debate even about the examples claimed to be clear! The textbook defines ‘normative’ very narrowly to refer to assertions of approval or disapproval. These assertions about what we want (or wish for) go beyond scientific claims about the world and its behaviour (past, present or future). Other sophisticated terms, such as ‘subjective’, ‘theory-laden’, ‘interpretation-laden’, and ‘normal’ and ‘judgement’, which some students may be familiar with, are different from ‘normative’, and they are essential to the practice of science. Recommending policy interventions to change the world is normative because the claim is made that this would be a desirable thing to do. Forming hypotheses, making predictions and devising explanations are scientific; advocacy steps beyond science into the normative.

- 2 Identify whether the following statements are positive or normative. Explain.
- ‘The government fought inflation during the early 1980s because it believed that high inflation was damaging the economy’s long-term growth.’
 - ‘Taxes reduce economic growth.’
 - ‘The government should cut taxes to stimulate GDP.’

Suggested solution:

- Positive statement, because it can be examined by economic historians or statisticians for factual accuracy by checking the historical record of inflation, growth and the government’s policy statements at the time.
- Positive statement, because, in principle, evidence about changes in taxes and later changes in growth can be statistically analysed.
- Normative statement, because it is a policy recommendation (there are other ways to stimulate GDP besides tax cuts).

- 3 Identify whether the following statements are positive or normative. Explain.
- ‘Carbon taxes would reduce environmental degradation.’
 - ‘The government should impose carbon taxes to reduce environmental degradation.’
 - ‘One way to reduce energy consumption is to use less energy heating and cooling your home.’
 - ‘People should reduce energy consumption by switching off their air conditioners.’

Suggested solution:

- Positive statement, as it is a factual, testable statement and there is no explicit advocacy.

- b. Normative statement, as it clearly advocates policy (other policies are possible, but this one is advocated).
- c. Positive statement, as it can be verified by observing energy consumption after cutting back on heating and cooling, and there is no explicit advocacy.
- d. Normative statement, as it reflects a personal opinion on the best way to save energy, which can vary between individuals.

Note on questions 4 and 5

Some of these questions are clearly more suitable for tutorial discussion than for exam use since context can affect the answer. 'Good' does not always mean normative advocacy: in some contexts, 'good' just means 'in fact effective'. Sometimes 'X should (or ought) to happen' means 'I expect X to happen', not that I approve of it. Also note that positive does not mean true!

- 4 In the previous two questions, the positive versus normative distinction was clear. Here are some challenging and debatable examples.
 - a. 'Balancing the federal budget would be good for the economy.' (Hint: Define what 'good' means in this context.)
 - b. 'In my opinion, the drought should break next year.' (Hint: Does this statement express approval, or is it about what is likely to happen?)
 - c. 'The financial crisis was caused by greedy and reckless financiers.' (Hint: Is this statement, whether true or false, purely about facts? Or is it a normative statement mainly about expressing approval or disapproval?)

Suggested solution:

- a. Normative statement, as it appears to advocate. However, if 'good for the economy' is defined or intended in the context as meaning 'good for growth' or 'would raise growth', then the statement becomes testable.
 - b. Positive statement, as it pertains to facts and is testable. Scientists make predictions routinely. There is no sign of approval or disapproval. One can have a scientific opinion about the weather.
 - c. Positive statement, as the claim that the financial crisis was caused by greedy and reckless financiers can be verified by empirical studies (although the terms 'greedy', 'reckless' and 'crisis' do have emotional and normative overtones).
- 5 Positive or normative? Here are some more challenging ones.
 - a. 'In my opinion, interest rates will rise next month.'
 - b. 'Corporate greed causes environmental degradation.'
 - c. 'Tiger Woods is a better golfer than George W. Bush.'
 - d. 'Interest rates under a Labor government will be higher than what they would be under a Coalition government.'

Suggested solution:

- a. Positive statement, as it's a prediction that will be revealed as right or wrong by the subsequent data. There is no hint of approval or disapproval.
 - b. Positive statement, as the corporate greed-environmental degradation nexus can be empirically tested (although the language is emotionally loaded).
 - c. Positive statement, as in this context 'better' can be empirically observed and tested.
 - d. Positive statement. This is a controversial claim (made during one Australian election campaign) and it strongly suggests advocacy ('vote for the Coalition'), but it is also a claim (prediction/hypothesis) that can be tested empirically. One can test whether Labor governments are associated with higher interest rates than Coalition governments, and one can estimate the empirical consequences of the two respective economic programs. This one is likely to cause much disagreement about whether it is normative or positive and, separately, whether it is true!
- 6** We all need to make *ceteris paribus* assumptions, but sometimes it is a mistake to believe that what we have assumed is true or reasonable. Something important has foolishly been assumed to be constant in the following cases.
- a. To raise farm output, kill the birds that eat the crops. (This was Chairman Mao's command to Chinese peasants. What do you think resulted from it?)
 - b. To preserve our liberty, arrest all potential terrorists.
 - c. To increase profits, sack some workers and tell those remaining to do extra work.

Suggested solution:

- a. However, birds also help to eradicate pests and insects on farms...
 - b. However, abuse of power by the anti-terrorism units may reduce our liberty.
 - c. However, the morale, loyalty and productivity of workers is likely to fall (though some CEOs say – privately – that fear is a great motivator).
- 7** Something has foolishly been assumed to be constant in the following macroeconomic examples. What is the problem with these statements?
- a. To enable more people to share in prosperity, tax the highest income earners at 98 per cent of any extra income received.
 - b. Cutting taxes makes people better off because they have more to spend.
 - c. Cutting government spending and raising taxes will soon reduce a government's debt-to-GDP ratio.

Suggested solution:

- a. High marginal tax rates on high-income earners can distort the incentive to work; these people may also migrate to low marginal tax rate countries.
- b. Lower taxes may result in the lower provision of goods and services by the government (roads, ports, etc.). Some people may prefer to save these tax cuts rather than consume them. Meanwhile, if the government wants to maintain a

balanced budget, then transfer payments will have to be cut as well, making some groups in society worse off.

- c. In macroeconomics, large changes in one part of the economy can affect the whole economy. Cutting government spending may affect GDP, not just the debt. It is possible for both government debt and GDP to decrease in the same proportion, leaving the government debt-to-GDP ratio unchanged. (We explore the effects of cutting government spending in Chapters 8 and 12.)

Chapter 2

Macroeconomics: getting started

Chapter outline

- Introduction
- Real gross domestic product over time
- Scarcity and choice for the economy as a whole
- Explaining the long-term trend and short-term fluctuations
- Conclusion and looking ahead

Learning objectives

After studying the material in this chapter, students should be able to:

- 1 summarise Australia's economic growth record
- 2 distinguish between long-term growth and short-term fluctuations in gross domestic product
- 3 use the production possibilities curve to show the production choices available to an economy to achieve trend growth
- 4 use the production possibilities curve to explain that total output can be too low or too high during fluctuations.

Suggestions for teaching

- Remind students that it is very important to analyse a country's economic performance over time in terms of real GDP, not nominal GDP. This is because the general increase in prices over time will inflate the magnitude of GDP, which may or may not increase due to the increase in the quantity of goods and services produced by the economy.
- Students may wonder about the criteria used in practice to differentiate between the short term and the long term. One way to clarify this is to link short-term economic fluctuations with election cycles; long-term economic growth, on the other hand, is only determined over a decade or more.
- Many students will never have heard of the Great Depression of the 1930s. Perhaps use some real-life examples to demonstrate the wide-reaching impact of the Great Depression. This discussion can also be complemented by pointing out the international economic and social impacts of the global financial crisis in 2008.
- State and discuss the following adage in the class: 'A recession is when your neighbours lost their jobs. A depression is when you lost your job.'

Discussion points

- Show the production possibilities curve (PPC) and explain why it is impossible for a country to operate beyond the PPC. Discuss the effects of international trade on the PPC.
- Discuss the key differences between classical economics and Keynesian economics. Highlight the role of the government in each school of thought.
- What should be policymakers' main priority: to maintain economic growth or to maintain a stable price level? Highlight the fact that economic growth may cause environmental degradation, while neglecting the price level can lead to hyperinflation.

Online resources

- This short clip should reinforce the message of the importance of understanding economics – even for those students who don't study economics major. <http://www.youtube.com/watch?v=XGhcJlJfwhY>.
- Visit the Australian Bureau of Statistics (ABS) website to obtain the most recent key economic indicators in Australia. <http://www.abs.gov.au/AUSSTATS/abs@.nsf/mf/1345.0?opendocument?opendocument#from-banner=LN>.
- For a brief history of Australia during the Great Depression in the 1930s, visit the Australian Government web page on the subject: <http://australia.gov.au/about-australia/australian-story/great-depression>. Facts and figures contained therein should provide students with important background information on some of the macroeconomic issues explored in this textbook.
- The short animated clip at the weblink below describes the key features of a typical business cycle. Students should find it fun to watch. <http://www.youtube.com/watch?v=28Ejh7yIDbk>.
- The Chart Pack, available from the Reserve Bank of Australia (RBA), is a user-friendly interface for extracting and plotting GDP growth and inflation in Australia. This will be a useful link for students who will need facts and figures for their assignments in the future. <http://www.rba.gov.au/chart-pack/au-gdp-growth.html>.
- Encourage students to refer to the online glossary and flashcards in order to revise the key terms and learning objectives introduced in this chapter.

Suggested solutions for end-of-chapter 'Review the basics'

- 1 What is the difference between economic growth and economic fluctuations?

Part one: Macroeconomic issues and challenges

Suggested solution:

Economic growth refers to the upward trend in real GDP, reflecting expansion of the economy over time. In contrast, economic fluctuations (or business cycles) refer to swings in real GDP that lead the economy to deviate from its long-term growth trend.

2 What is potential GDP?

Suggested solution:

Potential GDP refers to the long-term trend value of real GDP.

3 What does the PPC represent and why is this important?

Suggested solution:

The PPC is a curve showing the maximum possible combinations of sustainable (or efficient) production of two goods, given the economy's resources and level of technology. It is an important concept because the slope of the PPC reflects the notion of increasing opportunity costs.

Suggested solutions for end-of-chapter 'Questions and problems'

The solutions below relate to the questions and problems on pages 25-26 of the text.

- 1** Potential GDP refers to the long-term trend value of GDP. Deviations of real GDP from potential GDP reflect economic fluctuations (or business cycles) over a certain period of time. It is very rare for the real GDP to stay at the rough end of a business cycle for an extended period of time.
- 2** For the week commencing 25 March 2013, key macroeconomic issues in the news included: the Cypriot banking crisis; a potential change to the tax arrangements for superannuation in Australia; the inflation rate in Australia remaining neutral; and the strong Australian dollar for Q1 2013. The Cypriot banking crisis and strong dollar are related to economic fluctuations, and changes to superannuation and the inflation rate are likely to affect economic growth. Government responses to the Cypriot banking crisis and superannuation are related to economic policy.
- 3** Labour is an important factor of production. Encouraging people to retire at an older age increases the size of the labour force, which, in turn, raises potential GDP. From the government's perspective, this policy not only increases income per capita in the long run, but also broadens the tax base needed to support skyrocketing transfer payments and government spending as a result of an ageing society.