

Chapter 22 Economic growth

Answers to Knowledge checks

- 22.1** An increase in the full-employment level of real GDP is equivalent to an increase in the potential capacity of the economy, so is long-run economic growth.
- 22.2** The phrase ‘*ceteris paribus*’ is used by economists when they want to analyse a situation by holding some variables constant.
- 22.3** This would be nominal GDP. Real GDP is described as GDP at constant prices.
- 22.4** Nominal GDP is real GDP multiplied by the price index (divided by 100). In this case, $\text{£}120(\text{bn}) \times 1.05 = 126$.
- 22.5** Productive capacity can increase through an increase in the quantity of factor inputs, or in the efficiency with which they are utilised.
- 22.6** The boom phase would be characterised by upward pressure on prices and falling unemployment.
- 22.7** Figure 22.9 suggests that by the end of the period shown, the economy had not reached its previous trend growth rate, because the slope of the time-path is less steep than the previous trend. Remember that the rate of growth is represented by the slope of the trend line, not its height.

Answers to Exercises and Case studies

Exercise 22.1

- a** An increase in the rate of change of potential output is genuine economic growth, and would be represented by an outward movement of the *PPC*, or a rightward shift of the aggregate supply curve.
- b** A fall in the unemployment rate is a move *towards* the *PPC*, so is only short-run economic growth. It is remedying a former inefficiency in the labour market.
- c** Improved work practices that increase labour productivity are regarded as long-run economic growth, as this entails an outward movement of the *PPC*, or a rightward shift of the long-run aggregate supply curve.
- d** An increase in the proportion of the population joining the labour force is the equivalent of an increase in the size of the labour force, and represents an increase in the productive capacity of the economy, i.e. a rightward shift of the long-run aggregate supply curve. Therefore, it is long-run economic growth.
- e** An increase in the utilisation of capital is a movement towards the *PPC*, as it does not entail an increase in the potential productive capacity of the economy — in other words, it is simply removing a productive inefficiency. Just as a reduction in unemployment means better use of existing labour input, so an increase in capacity utilisation entails the better use of existing capital. This is short-run economic growth.
- f** A rightward shift of the long-run aggregate supply curve is an increase in potential productive capacity — and is exactly what is meant by long-run economic growth.

Exercise 22.2

See Table A22.1.

Table A22.1 The growth of real GDP in the UK

Year	Real GDP	Growth rate of real GDP (% p.a.)
2005	1,676	—
2006	1,717	2.45
2007	1,758	2.39
2008	1,749	−0.51
2009	1,676	−4.17
2010	1,704	1.67
2011	1,729	1.47
2012	1,755	1.50
2013	1,791	2.05
2014	1,845	3.02
2015	1,889	2.38
2016	1,925	1.91
2017	1,960	1.82

Growth was at its highest from 2013 to 2014, when real GDP grew by 3.02%. It was at its lowest between 2008 and 2009, when real GDP fell by 4.17%.

Exercise 22.3

No doubt you will have discussed a range of potential benefits and costs associated with economic growth. Economic growth enables an increase in the standard of living of the inhabitants of a country, but this needs to be balanced against the potential costs, for example in terms of the need to ensure sustainability. It is also important to be able to explore whether the population as a whole is benefiting from economic growth, or whether the benefits are largely going to a wealthy elite.

Case study 22.1

China's economic growth

- a** Central planning has been seen as a costly and inefficient way of allocating resources, which has often resulted in large production and allocative inefficiency. By allowing market forces to influence the allocation of resources, some of these inefficiencies are likely to be squeezed out of the system, therefore allowing resources to be more effectively used, and leading to a rightward shift of the aggregate supply curve.
- b** The problem with cross-border externalities is in negotiating an acceptable form of cooperation between the parties. China's relations with its neighbours have not always been friendly, as there is a history of tension and conflict between them. However, China has acknowledged that there is an issue with air pollution, both within its own cities and in relation to its neighbours. Joint discussions have taken place between the three countries, and China has committed itself to taking action.
- c** This is a highly contentious issue, with no ready solution. Rising car ownership may contribute to rising carbon dioxide emissions, which may then contribute towards climate change and global warming. However, from China's perspective, they are a relatively young economy with relatively low average incomes and a high poverty rate. Why should they not be able to benefit from rising incomes when countries that developed in earlier periods were able to grow with less concern for the environment? China can also point to the fact that the lifestyles enjoyed by people in the already developed countries also contribute to global warming, but Americans continue to drive gas-guzzling cars. There is no easy answer to this.

Answers to end-of-chapter questions

A Multiple-choice questions

- 1 c. £112,000
- 2 a. Two quarters of negative economic growth
- 3 c. A shift to the right of *LRAS*

B Knowledge and understanding questions

- 4 Long-run economic growth is the expansion of the productive capacity of an economy.
Short-run economic growth is an increase in actual GDP.

An explanation of the difference between the long-run and short-run economic growth positive output gap	up to 2 marks
A diagram showing the difference between the short-run (a right shift in the <i>AD</i> curve) and the long-run economic growth (a right shift in the <i>LRAS</i> curve) positive output gap	up to 2 marks

- 5 Stages include:

- Recovery
- Boom
- Recession
- Slump

Two stages explained	4 marks
One stage explained AND one stage identified	3 marks
One stage explained OR two stages identified	2 marks
One stage identified	1 mark

- 6 Long-run economic growth is the expansion of the productive capacity of an economy.
Short-run economic growth is an increase in actual GDP.

A nominal value is a value of an economic variable based on current prices, taking no account of changing prices through time.

An explanation of economic growth, either long run or short run	up to 2 marks
An explanation of nominal economic growth	up to 2 marks

C Stimulus response question

- 7 a Reasons may include:

- Increased employment
- Increase in tax revenue
- Increased consumption/quality of life
- To increase government spending

- To reduce poverty

A full explanation of one reason why the Chinese government has a policy of economic growth	2 marks
A vague or partial explanation of one reason why the Chinese government has a policy of economic growth	1 mark

b

AO1 Knowledge	1 mark
AO2 Application	1 mark
AO3 Analysis	5 marks
AO4 Evaluation	5 marks

Knowledge (1 mark) is likely to include:

- Economic growth

Application (1 mark) is likely to include:

- Application to the Chinese economy

Analysis (5 marks) is likely to include:

Analysis of possible negative consequences of slowing economic growth, for example:

- Reduced levels of consumption
- Reduced tax revenue, leading to a possible decrease in government spending
- Increasing unemployment
- Downward pressure on the price level

Evaluation (5 marks) is likely to include:

Evaluation that a slowing of economic growth may not have negative consequences, for example:

- Control of inflation
- May lead to an increase in government spending
- May prevent an economic boom (which could lead to a recession)
- Depends upon the extent of the slowdown

A judgement of the possible consequences for China of a slowing of economic growth in the Chinese economy

D Essay question

8

AO1 Knowledge	3 marks
AO2 Application	4 marks
AO3 Analysis	6 marks
AO4 Evaluation	7 marks

Knowledge (3 marks) is likely to include:

- Causes of economic growth, including:
 - Increase in components of *AD*

- Increase in components of *AS*

Application (4 marks) is likely to include:

- Application to the UK economy

Analysis (6 marks) is likely to include:

Analysis of the causes of economic growth, for example:

- An increase in *AD*, leading to possible increases in real GDP and price level
- An increase in *LRAS*, leading to a possible increase in real GDP and a possible decrease in the price level

Evaluation (7 marks) is likely to include:

Evaluation that the given causes may not have the effects on the UK economy, for example:

- Increases in *AD* may not lead to an increase in real GDP (classical *LRAS*, or economy at full employment)
- Increases in *AD* may only have an inflationary effect
- Increase in *LRAS* may not lead to an increase in real GDP (or effect the price level) if there is a negative output gap
- Depends upon the size of the economic growth
- Depends upon future expectations of the macroeconomy

A judgement of the main causes of economic growth in the UK economy