edexcel

AS and A Level
Economics A

Getting Started Guide

Pearson Edexcel Level 3 Advanced GCE in Economics A (9EC0)

Pearson Edexcel Level 3 Advanced Subsidiary GCE in Economics A (8EC0)

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Getting Started: AS and A level Economics A

Contents

1. Introduction

1.1 Research and key principles

Our new AS and A level Economics specifications are designed to support a range of student interests, learning styles and aspirations for progression.

The specifications have been developed in consultation with the teaching community, higher education, learned societies and subject associations. Teachers from a range of schools and colleges – in focus groups, surveys, phone interviews and face-to-face conversations – have provided feedback at each stage and have helped us to shape the specifications.

Academics in UK universities have helped us understand how to build on the strengths of the 2008 AS and A level Economics specifications and advised on how progression to undergraduate study could be improved.

We have commissioned and conducted our own research projects, including international benchmarking. The specifications are also aligned with our World Class Qualification principles to ensure they are appropriate for a range of learners.

Drawing on feedback from all parts of the Economics subject community, the 2015 specifications have been designed to support students in developing the following skills that have been identified as key for progression in this subject:

- Thinking like an economist.
- The application of economic concepts and theories to real-world contexts.
- The application of appropriate quantitative skills to relevant economic contexts.
- Engagement with economics through wider reading and an awareness of the current issues impacting on the subject.

The 2015 specifications have been built on the following key principles:

- **Clear specifications.** Clear guidance on what students need to learn, providing clarity for planning, teaching and assessments. The changes we have made to the structure of the specifications are explained in Section 2.2, page 7.
- **Co-teachable AS and A level courses.** The AS level is embedded in the A level to allow co-teachability. The relationship between AS level and A level qualifications and considerations for co-teaching the qualifications are detailed in Section 3 (page 13).
- **Historical context and debate.** The specifications select aspects of economic history to inform macroeconomic debate and provide context to economic issues. This content is integrated throughout the themes and the course overview can be found on page 8. The rationale for including this new content is outlined in the table on page 9.
- **Reflect today's global economy.** Building on the strengths of The Global Economy unit in the 2008 course, the new specifications ensure students develop an understanding of current global issues and development economics. The overview for the global theme can be found on page 8 and the changes made to this theme (compared with the 2008 specification) are summarised in the table on page 10. Mapping documents from the 2008 to 2015 specifications are available on the Economics pages of the Edexcel website.

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- **Reflect developments in economics.** The specification content has been updated to reflect developments and current issues in economics. The introduction of the financial sector supports student understanding of recent economic events and the 2008 Global Financial Crisis. The inclusion of some introductory ideas in behavioural economics ensures students develop an understanding of more recent economic thinking. A summary of these changes compared with our 2008 specification are summarised in the table on page 10. Ideas and suggestions for teaching approaches are detailed in Section 4 and further support for the new areas of the specification are available on the Economics pages of the Edexcel website.
- **Clear assessments.** There is a clear and consistent use of command words across assessments and between series. Our approach to the assessments, definitions for the command words and details of how the command words relate to the assessments are explained in Section 5 on page 87.
- **Real world focus.** All of the assessments are based on real data and real issues. This helps provide stimulating assessment materials to cover a wide range of economic issues for students to engage with. For more information about how stimulus material is utilised in the assessments, see Section 5.
- **Clear mark schemes.** The new mark schemes provide a consistent understanding of the skills and connections between these skills required for each question type. Clear wording reflects how teachers and examiners describe the qualities of student work, so the expectations are clear for teachers and for markers. Our approach to skills-based mark schemes is explained in Section 5.6 on page 89.
- **Skills for progression.** Students will develop transferable skills to support study in a wide range of subjects at university and the transition to employment. These skills include numeracy, communication, critical thinking, forming and testing hypotheses and commercial awareness. Our approach to skills development is detailed in Section 5 (stimulus material), Section 6 (quantitative skills), Section 7 (transferable skills) and Section 8 (economics and the Extended Project Qualification).

1.2 Support for the new specification

This *Getting Started* guide provides an overview of the new AS and A level specifications to help you get to grips with the changes to content and assessment, and to help you understand what these changes mean for you and your students.

We will be providing a package of support to help you plan and implement the new specifications:

- **Planning.** In addition to the relevant section in this guide, we will be providing a course planner and scheme of work that you can adapt to suit your department. We will also be providing mapping documents to highlight key differences between the new and 2008 specifications.
- **Teaching and learning.** To support you with delivering the new specifications, we will be providing suggested resource lists, case studies and suggested activities, a student guide and materials for options evening.
- **Understanding the standard.** Exemplar student work with examiner commentaries for the sample assessment materials will be provided.
- **Tracking learner progress.** Our ResultsPlus service provides the most detailed analysis available of your students' exam performance. It can help you identify topics and skills where students could benefit from further learning. Extra assessment materials for A level will also be available (from spring 2015) to support formative assessment.

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- **Support.** Our subject advisor service, led by Colin Leith, and online community will ensure you receive help and guidance from us as well as sharing ideas and information with each other. You can sign up to receive e-newsletters from Colin to keep up-to-date with qualification updates, and product and service news.

These support documents will be available on the Economics pages of the Edexcel website.

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2. What's changed?

2.1 How have AS and A level changed?

Changes to AS and A level qualifications

From September 2015, A level Economics A will be a linear qualification. This means that all examinations must be sat at the end of the course. More information about the implications of the move to linear assessment is given in Section 3 on page 13.

From September 2015, AS level Economics A will be a standalone qualification. This means that it cannot be used to contribute towards an A level grade. More information about the relationship between AS and A level is given in Section 3 on page 13.

Changes to subject criteria

The subject content requirements for AS and A level Economics have been revised. All awarding organisations' specifications must meet these criteria. The full subject content document can be found on the Department for Education website, but the boxes below highlight the key requirements.

The following requirements apply to both AS and A level Economics specifications:

AS and **A level** specifications must require students to:

- develop an understanding of economic concepts and theories through a critical consideration of current economic issues, problems and institutions that affect everyday life
- develop analytical and quantitative skills in selecting, interpreting and using appropriate data from a range of sources, including those in the Annex
- explain, analyse and evaluate the strengths and weaknesses of the market economy and the role of government within it
- develop a critical approach to economic models of enquiry, recognising the limitations of economic models
- understand microeconomic and macroeconomic market models; use the models to explore current economic behaviour; make causal connections; and develop an understanding of how the models shed light on the economy as a whole
- be aware of the assumptions of the model of supply and demand; explain the way it works using a range of techniques; and use the model to describe, predict and analyse economic behaviour
- develop an understanding of the benefits of markets and the reasons why they may fail; understand the implications of market failure for individuals, firms and government, and recognise the possibility of government failure
- use the aggregate demand/aggregate supply (AD/AS) model and data to understand why supply-side and/or demand-side policies may be seen as appropriate ways of managing an economy
- consider the possible impact of macroeconomic policies; recognise the issues government faces in managing the macroeconomy; argue for different approaches; and identify criteria for success and evaluate effectiveness
- develop the ability to apply and evaluate economic models as represented in written, numerical and graphical forms; interpret and evaluate different types of data from multiple sources; and propose and justify possible responses to economic issues.

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All **AS** and **A level** specifications must cover the following core knowledge, understanding and skills:

Economic choices and markets

- Scarcity and choice: the basic economic problem, opportunity cost, specialisation and trade.
- How competitive markets work: allocation of resources, the objectives of economic agents, supply and demand, elasticity.
- Market failure and government intervention: externalities, alternative methods of government intervention, government failure.

The national and global economy

- The determination of output, employment and prices: circular flow of income, expenditure and output, aggregate demand and aggregate supply.
- Economic policy objectives and indicators of macroeconomic performance: for example, economic growth, employment, inflation, the balance of payments; potential policy conflicts and trade-offs.
- The global context: international trade, exchange rate changes.
- The application of policy instruments: the nature and impact of fiscal, monetary, exchange rate and supply-side policies.

The following requirements also apply to A level Economics specifications:

A level specifications must require students to:

- develop an understanding of the role and impact of the financial sector
- recognise the assumptions, relationships and linkages of the possible impacts of macroeconomic policies
- apply and evaluate economic concepts, theories, methods and models to a wider range of contexts.

A level specifications must also cover the following core knowledge, understanding and skills:

Economic choices and markets

- Scarcity and choice: the margin.
- How competitive markets work: productive and allocative efficiency, the interaction of markets.
- Competition and market power: business objectives, market structures and their implications for the way resources are allocated, interdependence of firms.
- Labour market: wage determination, labour market issues, government intervention.
- Market failure and government intervention: market power, information asymmetries.

The national and global economy

- Financial sector: the role of the financial sector and its impact on the real economy, financial regulation, role of central banks.
- Economic policy objectives and indicators of macroeconomic performance: income distribution and welfare.
- The global context: globalisation, trade policies and negotiations.

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The main changes in the revised subject content are:

- the core content requirements (outlined in the tables on page 5) must constitute 60% of the AS and A level specification content
- there is defined core content for AS level
- the inclusion of the financial sector and labour markets within the core content for A level
- there is greater emphasis on the application of appropriate quantitative skills in a range of economic contexts. The assessment of these skills will include at least level 2 mathematical skills as a minimum of 15% of the overall AS and 20% of the overall A level marks.

Students are expected to accomplish the following quantitative skills as part of their AS and A level study:

- calculate, use and understand ratios and fractions
- calculate, use and understand percentages and percentage changes
- understand and use the terms mean, median **and relevant quantiles**
- construct and interpret a range of standard graphical forms
- **calculate** and interpret index numbers
- **calculate cost, revenue and profit (marginal, average, totals)**
- **make calculations to convert from money to real terms**
- make calculations of elasticity and interpret the result
- interpret, apply and analyse information in written, graphical and numerical forms

** skills in bold are not a requirement in the AS level.*

More information about the application of quantitative skills is given in Section 6.

Changes to Assessment Objectives

The AS and A level Economics Assessment Objectives have been revised.
The objectives have been made more explicit to exemplify the skills developed through the AS and A level specifications. The Assessment Objectives are the same for both AS and A level but the weightings are different.

AO1 AS 25–35% A level 20–30%	Demonstrate knowledge of terms/concepts and theories/models to show an understanding of the behaviour of economic agents and how they are affected by and respond to economic issues
AO2 AS 25–35% A level 20–30%	Apply knowledge and understanding to various economic contexts to show how economic agents are affected by and respond to issues
AO3 AS 15–25% A level 20–30%	Analyse issues within economics, showing an understanding of their impact on economic agents
AO4 AS 15–25% A level 20–30%	Evaluate economic arguments and use qualitative and quantitative evidence to support informed judgements relating to economic issues

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2.2 Changes to the Pearson Edexcel AS and A level Economics A specifications

The A level specification is structured into four themes. In this structure students are introduced to core economic concepts and principles and develop an understanding of microeconomic and macroeconomic issues, before building on this core knowledge and understanding to consider more complex issues and wider contexts. In this thematic approach, progression is continuous as students develop their knowledge and understanding throughout the course of study.

Students use economic models to help them understand the complexities of the world around them, and use data to help them analyse markets and economies, and how governments try to influence both. Students are introduced to different perspectives, aspects of economic history and develop an understanding of economic issues.

In developing the 2015 specifications we have retained the strengths of the 2008 specification:

- Engaging and updated content
- Development economics
- Global focus
- AS and A level courses designed to allow co-teachability

The layout of the specification content has changed to make clear what students need to learn. The guidance column has been removed and the content requirements are detailed in the main content columns.

Changes have been made to the specification content and the assessments to ensure the revised subject content and assessment requirements for economics are met (as outlined in Section 2.1), and to bring the specification up-to-date (see page 9).

Specification overview

The A level qualification is structured into four themes, with two microeconomic and two macroeconomic themes. The content is structured coherently and logically, which enables students to build on their knowledge and understanding as they progress throughout the course – students are introduced to economics through building knowledge and application of microeconomic and macroeconomic concepts in Theme 1 and Theme 2, with breadth and depth of knowledge and understanding, and applications to more complex concepts and models developed in Theme 3 and Theme 4. This division between microeconomic and macroeconomic themes also supports teacher specialism and ensures the specification is deliverable for two teaching specialists.

The charts on page 8 provide an overview of the A level and AS level specifications, indicating the relationship between the two. (Further guidance on the relationship between AS and A level is provided in Section 3 on page 13.)

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The A level is structured into four themes with three externally assessed exams:

<table>
<tr><td>Theme 1
Introduction to markets and market failure
1.1 The nature of economics
1.2 How markets work
1.3 Market failure
1.4 Government intervention</td><td>Theme 2
The UK economy – performance and policies
2.1 Measures of economic performance
2.2 Aggregate demand
2.3 Aggregate supply
2.4 National income
2.5 Economic growth
2.6 Macroeconomic objectives and policy</td></tr>
<tr><td>Theme 3
Business behaviour and the labour market
3.1 Business growth
3.2 Business objectives
3.3 Revenues, costs and profit
3.4 Market structures
3.5 The labour market
3.6 Government intervention</td><td>Theme 4
A global perspective
4.1 International economics
4.2 Poverty and inequality
4.3 Emerging and developing economies
4.4 The financial sector
4.5 Role of the state in the macroeconomy</td></tr>
<tr><td>Paper 1
Markets and business behaviour
Assessing Theme 1 and Theme 3</td><td>Paper 2
The national and global economy
Assessing Theme 2 and Theme 4</td></tr>
<tr><td colspan="2">Paper 3
Microeconomics and macroeconomics
Assessing all themes</td></tr>
</table>

The AS level is embedded in the A level: Theme 1 and Theme 2 comprise the same content for both the AS and A level specifications. There are two externally assessed exams:

<table>
<tr><td>Theme 1
Introduction to markets and market failure
1.1 The nature of economics
1.2 How markets work
1.3 Market failure
1.4 Government intervention</td><td>Theme 2
The UK economy – performance and policies
2.1 Measures of economic performance
2.2 Aggregate demand
2.3 Aggregate supply
2.4 National income
2.5 Economic growth
2.6 Macroeconomic objectives and policy</td></tr>
<tr><td>Paper 1
Introduction to markets and market failure</td><td>Paper 2
The UK economy – performance and policies</td></tr>
</table>

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Changes to specification content

Changes have been made to the specification content, both to ensure the revised subject content requirements for economics are met and to refresh the specifications to bring them more up-to-date in response to our research findings; for example, by incorporating current issues such as some introductory ideas relating to behavioural economics.

The following content has been included in addition to the core content specified in the DfE subject criteria (outlined on pages 4-5). The content outlined in the table below has been included to enable students to build on the core content requirements to ensure sufficient depth, and to include additional subject content to ensure sufficient breadth.

Specification content	Rationale for inclusion
The nature of economics	This introductory content addresses the aims and objectives with regards to appreciating the contribution of economics, developing an ability to think as an economist and understanding that economic behaviour can be covered through a range of perspectives.
Rational decision making and alternative views of consumer behaviour	This content addresses the requirement from stakeholders to include an element of behavioural economics and ensure the specification includes up-to-date and contemporary issues in the subject area.
Economic history and economic thinkers	Aspects of economic history have been integrated throughout the course to support contextual awareness and inform macroeconomic debate. The content demonstrates how economic events can be interpreted in different ways and how they impact on more recent economic events. The inclusion of reference to economic thinkers supports the understanding that there are different perspectives in economics, with different ways of approaching economic issues. References to current economic policies and issues, and the requirement to develop an awareness of recent events are outlined in the specification.
Emerging and developing economies (in Theme 4)	Theme 4 focuses on macroeconomics in the global context, with particular reference to emerging and developing economies. This demonstrates how economic concepts and theories can be applied in different and real world contexts.

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The table below is an overview of the main changes in content from our 2008 specification. More detailed mapping of individual topics from the 2015 specification to the 2008 specification can be found on the Economics pages of the Edexcel website.

2015 specification content	Changes from 2008 specification
Theme 1 **Introduction to markets and market failure** 1.1 The nature of economics 1.2 How markets work 1.3 Market failure 1.4 Government intervention	Inclusion of an awareness of economic thinkers with reference to Smith, Hayek and Marx. Inclusion of rational decision making and alternative views of consumer behaviour – an introduction to behavioural economics.
Theme 2 **The UK economy – performance and policies** 2.1 Measures of economic performance 2.2 Aggregate demand 2.3 Aggregate supply 2.4 National income 2.5 Economic growth 2.6 Macroeconomic objectives and policy	Selected aspects of economic history for context, with the inclusion of Keynes and references to and awareness of different interpretations of and policy responses to the Great Depression and the Global Financial Crisis. Inclusion of national happiness as a measure of wellbeing.
Theme 3 **Business behaviour and the labour market** 3.1 Business growth 3.2 Business objectives 3.3 Revenues, costs and profit 3.4 Market structures 3.5 The labour market 3.6 Government intervention	Coverage of the labour market in this theme.
Theme 4 **A global perspective** 4.1 International economics 4.2 Poverty and inequality 4.3 Emerging and developing economies 4.4 The financial sector 4.5 Role of the state in the macroeconomy	Inclusion of a topic on the financial sector covering the role of financial markets and central banks, functions of money and market failure in the financial sector.

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Changes to assessment

The assessment structures for the AS and A level qualifications are outlined below and on page 12. More detail on the assessment for each component is given in Section 5 on page 87.

There are three **A level** papers, each comprising 100 marks and 2 hours in duration.

Paper 1 **Markets and business behaviour** Total marks: **100** Weighting: **35%** Exam time: **2hrs** Questions drawn from Theme 1 and Theme 3 content.	**Section A:** Multiple-choice and short-answer questions. Students answer all questions.
	Section B: Based on stimulus material. One data response question comprising a number of parts.
	Section C: One extended open-response question. Students select one from a choice of two.
Paper 2 **The national and global economy** Total marks: **100** Weighting: **35%** Exam time: **2hrs** Questions drawn from Theme 2 and Theme 4 content.	**Section A:** Multiple-choice and short-answer questions. Students answer all questions.
	Section B: Based on stimulus material. One data response question comprising a number of parts.
	Section C: One extended open-response question. Students select one from a choice of two.
Paper 3 **Microeconomics and macroeconomics** Total marks: **100** Weighting: **30%** Exam time: **2hrs** Questions drawn from all themes.	**Section A:** Based on stimulus material. One data response question comprising a number of parts, including one extended open-response question (students select one extended open-response question from a choice of two).
	Section B: Based on stimulus material. One data response question comprising a number of parts, including one extended open-response question (students select one extended open-response question from a choice of two).

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There are two **AS level** papers, each comprising 80 marks and 1.5 hours in duration.

<table>
<tr><td rowspan="2">Paper 1
Introduction to markets and market failure

Total marks: 80
Weighting: 50%
Exam time: 1hr 30

Questions are drawn from Theme 1 content</td><td>Section A: Multiple-choice and short-answer questions.
Students answer all questions.</td></tr>
<tr><td>Section B: Based on stimulus material.
One data response question comprising a number of parts, including one extended open-response question (students select one extended open-response question from a choice of two).</td></tr>
<tr><td rowspan="2">Paper 2
The UK economy – performance and policies

Total marks: 80
Weighting: 50%
Exam time: 1hr 30

Questions are drawn from Theme 2 content</td><td>Section A: Multiple-choice and short-answer questions.
Students answer all questions.</td></tr>
<tr><td>Section B: Based on stimulus material.
One data response question comprising a number of parts, including one extended open-response question (students select one extended open-response question from a choice of two).</td></tr>
</table>

Changes have been made to the approach of the AS level and A level papers to ensure the assessments are clear and consistent, enabling students to understand the skills they are required to demonstrate and not overly focus on exam technique. The changes summarised below are explained in detail in Section 5:

- A reduction in the variety of **command words** used, careful definition of the skills that comprise each command word and consistent application of the command words within and across assessments.
- **Skills based mark schemes** that focus on the qualities students are expected to demonstrate in their answers rather than the quantity of points within responses. Clarity of the skills required by each command word reflects how teachers and examiners describe the qualities of student work, so the expectations are clear for teachers and for markers and reduces subjectivity.
- The introduction of short-answer questions comprising **multiple choice and short answer** elements. These questions focus on knowledge, understanding and application, ensuring questions are explicit and clear in the knowledge and understanding students are required to demonstrate.
- **Choice** is provided for the extended open-response questions, enabling students to respond to an issue based on a context they are more engaged or familiar with. There is no choice of data response question. This allows students to focus on one, broader data response context, which supports comparability across papers and reduces time spent in the exam on processing a second data response context and question that will not contribute to the overall marks.

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3. Planning

3.1 Planning and delivering linear AS and A level courses

Both the AS and the A level qualifications are linear, with assessments taken at the end of the course. There will be no January assessment window.

For AS level, therefore, centres can decide whether to teach Theme 1 and Theme 2 in parallel or sequentially, based on their timetabling and staffing situation.

For A level, centres will need to decide whether they are delivering the A level on its own or co-teaching AS and A level students together, as this may impact on the approach to teaching in the first year. See Sections 3.2 and 3.3 below for further guidance on this.

With a linear A level, consideration will need to be given to leaving sufficient time for revision in the second year, particularly to revisit topics studied in the first year. The structure of the course supports continuous revision as students develop knowledge and understanding from Theme 1 and Theme 2 to Theme 3 and Theme 4.

3.2 Delivery models

One of the first decisions centres will need to make is the approach to offering AS and A level. The benefits of a linear A level course include more flexibility in structuring the course, more time for teaching in the first year, greater student maturity when completing assessments and more opportunity for students to make links between different elements of the course. On the other hand, it means that all students must embark on the A level course; any student who leaves the course before it is completed will leave with no qualification.

Centres wishing to offer the AS alongside the A level will need to decide whether they can run separate AS and A level classes, or whether AS and A level students will need to be taught in the same class. Co-teaching means that students may be able to delay their decision to take the full A level once they have experience of the subject content; many students are learning Economics for the first time at this level. Those who did go on to the full A level would still have to be examined on all the A level content at the end of the second year and their AS grade will not count towards their A level grade.

Centres are advised to check the funding implications of students delaying AS and A level decisions.

Centres co-teaching the AS will follow a thematic approach, delivering Theme 1 and Theme 2 in the first year. The themes could be run in parallel or taught sequentially, depending on what is most appropriate for staffing and timetabling within each centre. Centres offering only the A level may also start with Theme 1 and 2 in the first year, but could decide to structure the course differently and adopt an integrated approach; for example, by teaching all microeconomic content together. Suggested different approaches to structuring the course are given in the separate Course Planner documents (on the Economics subject pages of the Edexcel website).

The chart on page 14 illustrates the different options described above.

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	Sept 2015	Jan 2016	June 2016	Sept 2016	Jan 2017	June 2017
AS level only	Theme 1	Theme 2	Enter for AS level qualification			
Co-teaching AS and A level	Theme 1	Theme 2	Enter for AS level qualification	Theme 3	Theme 4	Enter for A level qualification
Thematic approach to A level	Theme 1	Theme 2	Mock for Themes 1 and 2	Theme 3	Theme 4	Enter for A level qualification
Integrated approach to A level	Theme 1, 2, 3 and 4 (integrated approach)					Enter for A level qualification

3.3 Co-teaching AS and A level

The AS level is embedded in the A level: Theme 1 and Theme 2 is the same content for the AS and A level specifications. This means that Theme 1 and Theme 2 can be co-taught for AS and A level.

The assessments are differentiated. The A level papers require students to make connections across Themes. Content in Theme 1 and Theme 2 may be assessed at both AS and A level, but the style of questions may be differentiated.

3.4 Suggested resources

To support in the teaching and learning of the new specifications, we will provide a comprehensive suggested resources list to capture a range of sources you may find useful. The list will be regularly updated and can be viewed on the Economics pages of the Edexcel website.

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4. Content guidance

Introduction

This section provides ideas and suggestions for teaching approaches and is not intended to be prescriptive. The specification must be referred to as the authoritative source of information.

Theme 1: Introduction to markets and market failure

This section provides ideas and suggestions for teaching approaches for Theme 1 and is not intended to be prescriptive. The specification must be referred to as the authoritative source of information.

1.1 Nature of economics

This topic introduces students to the nature of economics through exploring some key underlying concepts, including the idea that economics is a social science, positive and normative economic statements, the economic problem of scarcity and production possibility frontiers. Students will also consider the advantages and disadvantages of specialisation and the division of labour in organising production and in the production of goods and services to trade. Specialisation means there is a need to exchange and this is why students will explore the functions of money. Students are also introduced to the different ways economies can organise themselves in terms of free market, command and mixed economies. Students are required to distinguish between the three and consider the advantages and disadvantages of each.

1.1.1 Economics as a social science

a Economists try to understand the economy through making assumptions to help them create models. An understanding of why economists make assumptions in order to simplify their analysis will be useful. The ability to question and challenge assumptions can be used as an evaluative tool in each of the themes.

It will be useful to introduce a basic model and consider how the assumptions help simplify it. Students should also consider how realistic the model is. The PPF could be considered at this stage (introduced in 1.1.4). Students could consider how PPF is helpful in simplifying two products to help illustrate the maximum productive potential, opportunity costs and efficiency, as well as challenge whether these are realistic assumptions.

b Students should explore what *ceteris paribus* means – assuming other variables remain constant – and why this is an important assumption for economists to make when considering the relationships between different variables. Often the impact of one variable on another is considered – for example, how interest rates affect unemployment – and it is important to assume *ceteris paribus* to simplify the analysis.

c A scientist can prove the relationships between two variables by conducting experiments. This is not possible for an economist – an economist does not conduct an experiment to determine the impact of a 10% increase in VAT. Instead, an economist creates a simplified model of the economy to look at the impact of such an increase.

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1.1.2 Positive and normative economic statements

a Students are required to understand the distinction between positive and normative economic statements and they should be able to explain why statements are either positive or normative.

b Governments make value judgements on economic issues and how much they get involved in the economy will depend on these normative issues. Economic analysis tends to be more concerned with positive issues, i.e. statements of fact that can be tested against real world evidence. Some countries, such as the US, have a predominantly private healthcare system, where people have to pay directly for their treatment. The UK has a predominantly publicly provided healthcare system (the NHS) – to say that the UK's approach is 'fairer' is essentially a value judgement, i.e. a normative issue. To say that the amount spent per head on healthcare in the UK is less than that in the US is a positive statement. Students should understand that the economic decisions made by individuals and the policy decisions made by governments will be based on their value judgements and, as such, are normative.

1.1.3 The economic problem

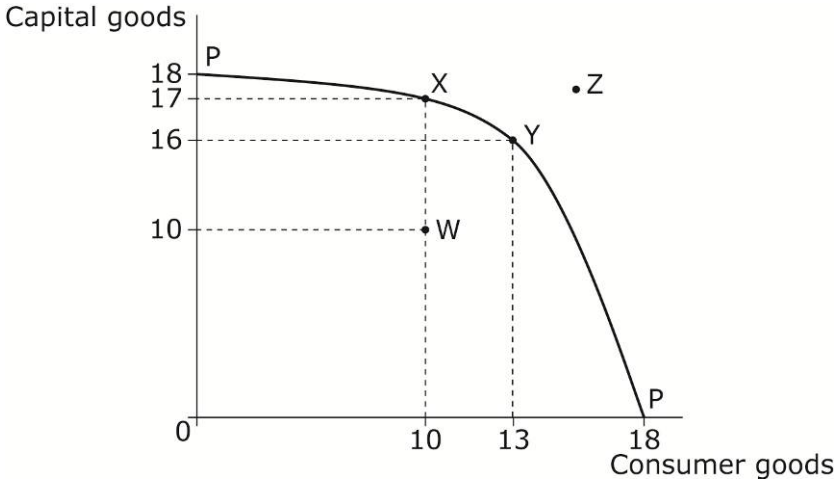
a The basic economic problem is that resources are scarce. For many of these resources there are infinite wants but finite resources with which to satisfy them. Scarce resources mean that decisions need to be made regarding what, how, why, and for whom goods and services are produced. Economics can be used as a tool when choosing between the competing demands placed on the available resources.

b Students should explore the difference between renewable and non-renewable resources and be aware of examples of each. One interesting market to consider here is energy generation and students could distinguish between renewable and non-renewable energy resources.

c Scarce resources mean that choices have to be made and, in doing so, there is an opportunity cost. Students should consider the opportunity costs that consumers, producers and governments experience; for example: should a consumer spend his or her disposable income on a new textbook or a meal out with friends; should a producer increase the dividend to shareholders or invest in capital goods; should a government allocate additional funding to education or invest in new medical equipment for the NHS?

1.1.4 Production possibility frontiers

a Production possibility frontiers (PPFs) help economists to analyse trade-offs. They show the maximum possible combination of goods/services that can be produced using all available resources.



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b Students should be able to draw PPFs and depict each of the following:

- The maximum productive potential of an economy, which is any point along the PPF PP.
- The concept of opportunity cost – the production of two more consumer goods incurs an opportunity cost of one capital good.
- Economic growth (an increase in the productive potential of the country), which can be shown by an outward shift in the PPF. Such a shift can be caused by an increase in the quantity or quality of the factors of production (such as better educated labour, hi-tech capital or a new oil field discovery). Very occasionally, the PPF shifts inwards and would be seen as economic decline; for example, caused by civil war or a natural disaster such as a hurricane or earthquake.
- The concept of efficiency – any point on the PPF is a productively efficient point where the factors of production (resources – including land, labour, capital and enterprise) are being used to their maximum potential. Any point on the PPF PP is efficient, any point inside the PPF is inefficient – some of the factors of production are unemployed or under-employed.
- Possible production – anything under or on the PPF. However, an example of unobtainable production could be point Z because it is beyond the PPF.

c Students are required to distinguish between capital and consumer goods. A consideration of how economic growth might be affected by allocating more resources to the production of capital goods will be useful in developing a deeper understanding of this area.

1.1.5 Specialisation and the division of labour

a Students are not required to study the work of Adam Smith in detail – the emphasis should be on understanding his key findings.

b One way in which economic growth can occur is via specialisation, or the division of labour. Adam Smith wrote about the division of labour in *The Wealth of Nations* in the 18th century. In studying a pin factory in Glasgow he found that when workers completed all of the tasks involved in producing each pin independently, output was low. By splitting the production of a good into a number of different tasks, and allocating each task to a different worker, more could be produced as workers developed greater skill in performing their particular task with the use of specialist tools designed just for that task, therefore leading to less wastage of materials and less time spent on their task. As well as increased output, there were corresponding lower unit costs. However, when this method was put into practice in the early 20th century – for example, with Henry Ford's Model T production line – workers became so bored that they had to be paid high wages as compensation for the monotony of their work.

c Students need to consider the advantages and disadvantages of specialising in the production of goods and services. Consideration should be given to the impact on productivity, unit costs, higher output and boredom.

d As firms and individuals specialise in the production of goods and services they will need to sell their products to others. They will also need to purchase other products. This trade creates a need for money to exchange. Students will need to explore the functions of money as a medium of exchange, a measure of value, a store of value and a method of deferred payment.

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1.1.6 Free market economies, mixed economy and command economy

a There are a number of different economic systems with different approaches to organising the economy. Students are required to consider the distinction between a free market economy, a mixed economy and a command economy.

Students should have an awareness of the perspectives of Adam Smith, Friedrich Hayek and Karl Marx; however, there is no requirement for detailed consideration of the work of each economist. Smith argued that economies function most efficiently and fairly when individuals are allowed to pursue their own interests; the great threat to economic growth is government intervention. Hayek was critical of command economies; he was concerned about the information required to distribute resources effectively and argued it was impossible for the government to process this information effectively. Marx considered the flaws of free market economies; he argued that the free market economy would break down because the owners of business made huge profits at the expense of workers.

b Most economists would argue that free markets are the most efficient (in terms of using resources in the best possible way to meet the needs and wants of consumers). However, when equity is considered, most economists would also argue that free markets lead to an unequal distribution of income and wealth, since owners of capital and entrepreneurs tend to accumulate the most income/wealth and many people, such as the sick or elderly, are unable to work. As a result, most economies today are mixed economies, where markets allocate many resources, but governments intervene to different extents in order to ensure a minimum standard of living and to correct other market failures.

c Governments intervene by raising revenue through taxes and redistributing income in the form of benefits and direct provision of services such as healthcare.

1.2 How markets work

This section introduces students to markets, exploring supply and demand. Students should use supply and demand to analyse real world situations and impacts on markets. Students will also challenge the assumption that consumers behave rationally.

1.2.1 Rational decision making

a When building supply and demand models we make assumptions about consumers and producers as economic agents who seek to maximise their utility. Consumers aim to maximise the utility they derive from purchasing goods or services and firms aim to maximise their utility by selling goods and services for the maximum possible profit.

1.2.2 Demand

a Demand might be regarded as an abstract concept so it should be related to markets familiar to students. It may be useful to conduct an auction. Demand refers to the amount that consumers are willing and able to buy at any given price in a given period of time. A demand curve shows this relationship between price and quantity demanded. It slopes downwards from left to right because, as price falls, people are more willing to buy a good.

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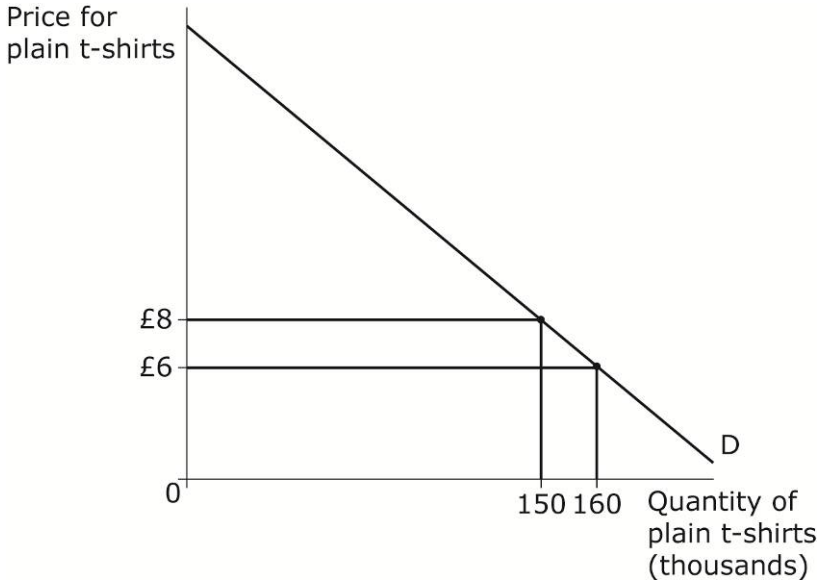

Students may find it difficult to remember that changing the price leads to *movements* along the demand curve and not a *shift* – this point needs emphasising. In the example above, the price has fallen from £8 to £6 and the quantity has increased from 150 000 to 160 000 shirts. Students should understand that this is an extension of demand. When the price rises and the quantity demanded falls it should be referred to as a contraction in demand.

b Factors that may cause a shift in the demand curve include: changes in real incomes, changes in tastes and fashions, advertising and branding, changes in the prices of substitutes and complementary goods, and changes in size and age distribution of the population.

c Students should explore the concept of diminishing marginal utility and how this influences the shape of the demand curve. Marginal utility is the additional utility, or amount of satisfaction, gained from each additional unit of consumption. Total utility will normally rise as additional units of a product are consumed. Marginal utility will usually decrease with each additional increase in the consumption of a good. This decrease in marginal utility demonstrates the law of diminishing marginal utility, which helps economists to understand the negative sloping demand curve.

1.2.3 Price, income and cross elasticities of demand

a Price elasticity of demand (PED) measures the responsiveness of quantity demanded to a change in price. Income elasticity of demand (YED) measures the responsiveness of quantity demanded to a change in income. Cross (price) elasticity of demand (XED) measures the responsiveness of quantity demanded for one good to a change in the price of another good.

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b Students will find it useful to have lots of practice calculating and interpreting elasticities. Students should be confident using the formulae below:

$$\text{PED} = \frac{\text{\% change in Quantity Demanded}}{\text{\% change in Price}} = \frac{\%\Delta \text{ in QD}}{\%\Delta \text{ in P}}$$

$$\text{YED} = \frac{\text{\% change in Quantity Demanded}}{\text{\% change in Income}} = \frac{\%\Delta \text{ in QD}}{\%\Delta \text{ in Y}}$$

$$\text{XED} = \frac{\text{\% change in Quantity Demanded of good x}}{\text{\% change in Price of good y}} = \frac{\%\Delta \text{ in QDx}}{\%\Delta \text{ in Py}}$$

c YED and XED may be positive or negative.

PED	
0	Perfectly inelastic
0 to –1	Relatively inelastic
–1	Unitary elastic
–1 to ∞	Relatively elastic
∞	Perfectly elastic

YED	
<0 (negative)	Inferior good – as income rises the demand for the product will fall
0 to +1	Normal good – income inelastic demand
+1 to ∞	Normal good – income elastic demand

XED	
<0 (negative)	Complements
>0 (positive)	Substitutes
0	Unrelated goods

d The factors that influence PED include: the availability of substitutes, the addictiveness of the product, time and the price of the product as a proportion of income.

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e PED is important to firms in determining their pricing strategy: if demand is inelastic, then an increase in price leads to an increase in total revenue and a fall in price reduces total revenue; if PED is elastic, then a rise in price reduces total revenue and a fall in price increases total revenue. PED is also important to governments in terms of understanding the burden (or incidence) of taxation on producers and consumers. The more price inelastic the good, a greater proportion of the tax is paid by the consumer than the producer. Similarly, for subsidies (a government grant given to producers in order to encourage production), the more price inelastic the good, the greater the price fall for consumers.

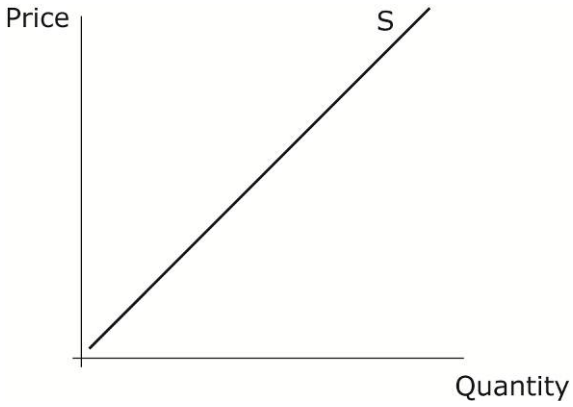
Firms should consider the YED of products; if analysis of YED shows demand for their product is income elastic and the economy experiences a recession, demand is likely to fall significantly. XED will tell a firm how demand for their own product will change following a price change by their competitors or partners.

f Students are required to understand and calculate the relationship between PED and total revenue.

PED	Price rises	Price falls
Inelastic	Total revenue rises	Total revenue falls
Unitary elastic	Total revenue unchanged	Total revenue unchanged
Elastic	Total revenue falls	Total revenue rises

1.2.4 Supply

a Supply refers to the amount that producers are willing and able to sell at any given price in a given period of time. The supply curve shows the relationship between price and the quantity supplied. It slopes upwards from left to right because, as price rises, rational profit maximising producers will supply more because profits should rise. A change in the price of the good leads to a *movement* along the supply curve, not a *shift* in the supply curve.



b Factors that may cause a shift in the supply curve include: changes in the costs of production, the introduction of new technology, indirect taxes (specific and *ad valorem*), subsidies and changes in the number of firms in an industry.

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1.2.5 Elasticity of supply

a Price elasticity of supply (PES) measures the responsiveness of quantity supplied to a change in price.

b PES can be calculated using the following formula:

$$PES = \frac{\%\text{ change in Quantity Supplied}}{\%\text{ change in Price}} = \frac{\%\Delta \text{ in Qs}}{\%\Delta \text{ in P}}$$

c A steep supply curve shows a good where quantity supplied is not very responsive to changes in price. It will have inelastic supply. The percentage change in quantity supplied will be smaller than the percentage change in price. A shallow supply curve shows a good where quantity supplied is more responsive to changes in price. It will have elastic supply. The percentage change in quantity supplied will be greater than the change in price. PES is always a positive number.

PES	
0	Perfectly inelastic
0 to +1	Relatively inelastic
+1 to ∞	Relatively elastic
∞	Perfectly elastic

d Supply is likely to be price inelastic if it is: complex to make, raw materials are scarce, the production process is lengthy and if it is in the short run (the time period where the quantity of some factors of production are fixed). Supply is price elastic when: the good is quick and easy to make and if it is the long run (the time period where all factors of production are variable).

e In the short run it is difficult to adjust production, making supply inelastic. This is because some factors of production are fixed. However, in the long run, all factors can be adjusted so firms can increase production in response to price increases, making supply more elastic.

1.2.6 Price determination

a Students are required to know how equilibrium price and quantity are determined.

b Where demand (D) and supply (S) intersect is the market clearing price (P). If the price is above the equilibrium price P, supply is greater than demand and there is excess supply, a surplus or glut. If the price is below the equilibrium price P, demand is greater than supply causing excess demand or a shortage. Students are required to illustrate both excess demand and excess supply diagrammatically and explain how the market will clear in terms of price adjustment.

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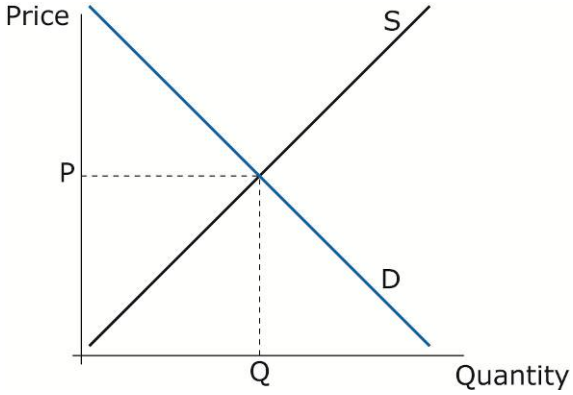

c If there is excess supply, market forces will result in a contraction in supply and an extension in demand, so causing a fall in price to its market clearing level, P.

If there is excess demand, market forces will result in an extension in supply and a contraction in demand, causing a rise in price to its market clearing level, P.

To support students in understanding excess supply and excess demand it is worth giving illustrations; for example, a flower seller who set prices too high resulting in unsold flowers at the end of the day.

d Students are required to examine real world markets and consider what is causing prices to change. Supply and demand diagrams should be used to demonstrate how shifts in the demand or supply curve cause changes in the equilibrium price and quantity. Price rises are caused by increasing demand (shifting to the right) or decreased supply (shifting to the left). Price falls are caused by decreasing demand (shifting to the left) or increased supply (shifting to the right). It is useful for students to consider commodity markets and look at what causes such volatile price changes. For example, demand is highly price inelastic for oil and supply is also price inelastic as it takes so long to discover new supply. Any changes in the supply of oil or demand for oil will have a large impact on its price.

1.2.7 Price mechanism

a Students are required to consider the functions of the price mechanism to allocate resources:

- Rationing – due to scarcity, not everyone is able to buy everything they want; when demand is greater than supply, prices will rise so that the good/service is rationed out only to those who can afford to pay for the items.
- Incentive – when the price of a product rises it creates an incentive for firms to shift production towards those products that help generate higher profits. Likewise falling prices may create an incentive for firms to move away from the production of a product.
- Signalling – when the price of a product rises it signals to producers that the demand for that product is probably high and firms should increase production. Prices are helping to determine where and how resources should be allocated.

b The price mechanism should be considered in the context of different types of markets, including local, national and global.

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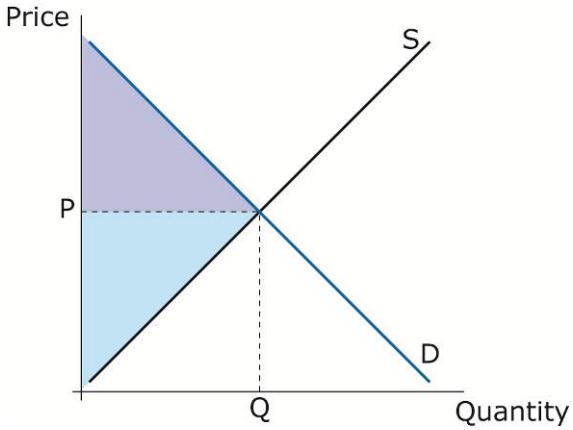
1.2.8 Consumer and producer surplus

a Consumer surplus is the difference between the amount consumers are willing to pay and the price they actually pay, whereas producer surplus is the difference between the amount producers are willing to sell a good for and the price they actually receive.

b Students are required to illustrate consumer and producer surplus on a diagram. Consumer surplus is illustrated by the difference between the demand curve (the amount they are willing to pay) and the market equilibrium price (the amount they actually pay) – the darker shaded area on the diagram. Producer surplus is shown by the difference between the supply curve (the amount they are willing to sell for) and the market equilibrium price (the amount they sell for) – the lighter shaded area on the diagram.

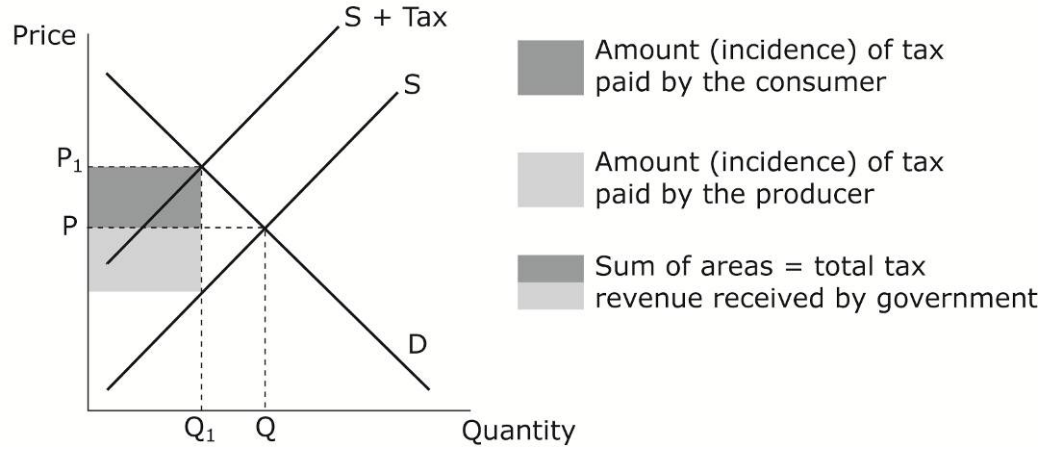


c Students should consider how changes in supply and demand will affect the size of the consumer and producer surplus, and identify the original, new and change in both the consumer and producer surplus.

1.2.9 Indirect taxes and subsidies

a In the diagram there is a specific tax imposed which causes supply to shift to the left from S to S+ Tax. This causes the quantity to fall from Q to Q1 and the price to rise from P to P1. The incidence of the tax paid by the consumer is in dark grey and represents the fact consumers are now paying more. The incidence of the tax paid by the producer is given by the lighter grey and represents the fact they earn less revenue per item. The sum of the two incidences represents the tax revenue earned by the government from this tax.

The Incidence of Taxation



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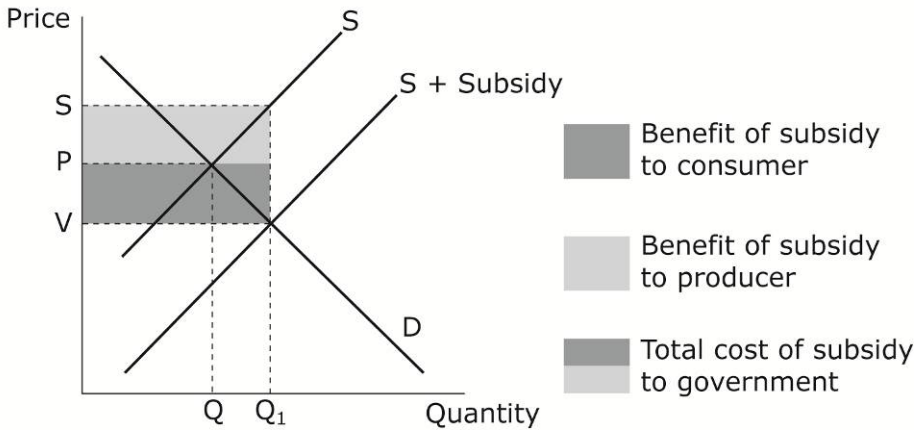
Students should consider how the elasticity will affect the incidence of the tax. When demand is more inelastic the incidence of the tax paid by the consumer will be bigger and the incidence of the tax on the producer will be smaller. When demand is elastic then the incidence will be greater for the producer than the consumer. Taxes should be linked to negative externalities. Governments impose taxes on goods such as cigarettes and alcohol to reduce the consumption of the good and to raise tax revenue in order to fund education and health.

In the diagram there is a subsidy introduced which causes supply to shift to the right from S to S+Subsidy. This causes the quantity to rise from Q to Q1 and the price to fall from P to V. The benefit of the subsidy to the consumer is in dark grey and represents the fact consumers are now paying less. The benefit of the subsidy to the producer is given by the lighter grey area and represents the fact they earn more revenue per item. The total cost of the subsidy to the government will be the sum of the benefits to both the consumer and producer.

Incidence of a Subsidy



Subsidies should be linked to goods which exhibit positive externalities.

1.2.10 Alternative views of consumer behaviour

a Some behavioural economists have used psychology and conducted experiments to suggest that consumers do not always make rational choices and that economic theory should not assume rationality. For example, behavioural economists have tried to demonstrate that consumer decisions are often influenced by the opinions of others which might not lead to utility maximisation. It is useful in this section to use real markets – such as bank accounts and energy suppliers – to explore why consumers may not act rationally. For example, consumers may be influenced by habit, inertia or the need to feel valued.

1.3 Market failure

This section considers how markets can fail to deliver the socially optimal level of output and explores externalities, public goods and information gaps. Students should be able to apply the concepts to real world markets.

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1.3.1 Types of market failure

a Market failure is where too much or too little of a good is being produced and/or consumed compared with the socially optimal level of output, or when the price mechanism leads to an inefficient allocation of resources.

b Students should be introduced to examples of the different types of market failure, including externalities, public goods and information gaps.

1.3.2 Externalities

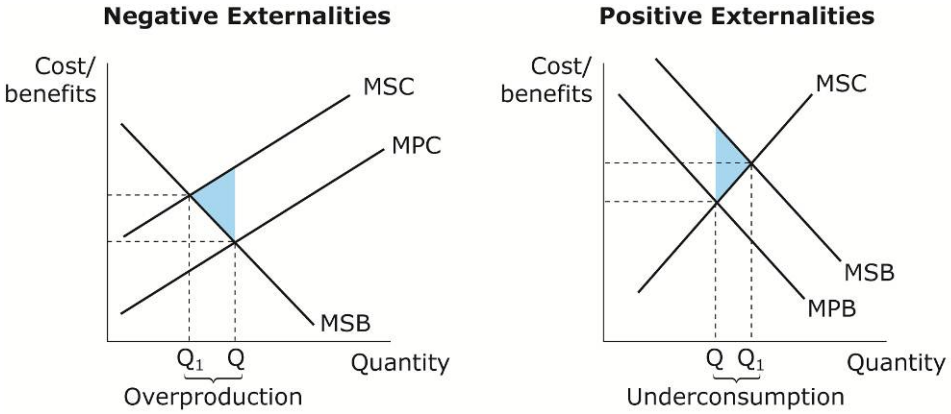
a External costs (negative externalities) exist when the social costs of an economic action are greater than the private costs. For example, a chemical manufacturer located on the banks of a river will incur a number of private costs of production (for example, raw materials, labour and running machinery) but may also impose costs on third parties, such as noise from delivery lorries, an ugly factory affecting the quality of life of local residents and pollution in the form of chemicals being pumped into the river.

Social costs = private costs + external costs

b External benefits (positive externalities) exist when the social benefits of an economic action are greater than the private benefits. For example, the education received by a child means that he or she can get a job that pays a reasonable income (i.e. there is a private benefit to education); however, that child's education may also benefit wider society if he or she becomes a doctor and is able to treat people so that they can return to work (i.e. there is also an external benefit).

Social benefits = private benefits + external benefits

c (c and d) Students should draw the relevant diagrams accurately and it is important to pay particular attention to labelling the market equilibrium, social optimum and welfare loss.



MSB= Marginal social benefit
MSC= Marginal social cost
MPC= Marginal private cost
Q= Market equilibrium quantity
Q_1= Social optimum quantity
Shaded area= welfare loss triangle from over consumption (negative externalities) and welfare loss from under consumption (positive externalities)

e Many students find this topic challenging as it is abstract. Use as many practical examples as possible and get students to identify private and external costs/benefits. Examples could include: transport, extraction, mining and forestry, energy generation, chemical manufacturing, health and education.

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1.3.3 Public goods

a Students can usually identify that public goods exhibit non-rivalry and non-excludability but can find it difficult to explain what each is. Giving examples to support their understanding will be useful.

Goods that are both non-rival and non-excludable are called public goods. Non-rival means that the consumption of a product by one person does not prevent another person from also consuming that product. For example, a radio or TV programme demonstrates non-rivalry because one person listening to the programme does not prevent others from listening to it. However, a radio or TV is a rival good. Non-excludable means that once a good is provided it is impossible to stop people from using it. For example, once a lighthouse is provided, ships at sea cannot be prevented from benefiting from it. However, a car manufacturer can exclude someone from purchasing its cars if that person cannot afford it, which is why cars are classified as private goods.

b Public goods have to be provided by governments, because people cannot be prevented from using them and firms have no incentive to provide them as they cannot make a profit. The problem the private sector faces is the *free rider problem*, where consumers will benefit from the product without paying for it.

1.3.4 Information gaps

a Perfect and symmetric information held by buyers and sellers means that consumers and producers have the same level of knowledge about the products and they know everything there is to know about them. In many cases information is asymmetric and producers know more than consumers or the information is incomplete or imperfect.

b Examples of imperfect information include over-consumption of tobacco or alcohol and under-consumption of healthcare or education. Other examples include the financial sector, pensions, insurance and the used car market.

1.4 Government intervention

Market failure is a justification for a government role in creating a more efficient social optimal outcome. This topic considers ways in which governments can intervene in markets and the impact of these interventions. Students will also consider how government intervention can lead to net welfare loss.

1.4.1 Government intervention in markets

a Taxation reduces supply, leading to an increase in price. This acts to discourage production/consumption of a good with negative externalities.

An *ad valorem* tax is a percentage, such as VAT. With an *ad valorem* tax the supply curve becomes steeper – in the diagram below the supply curve has pivoted from supply to supply + tax. The buyer pays a proportion of the tax and the supplier the rest.

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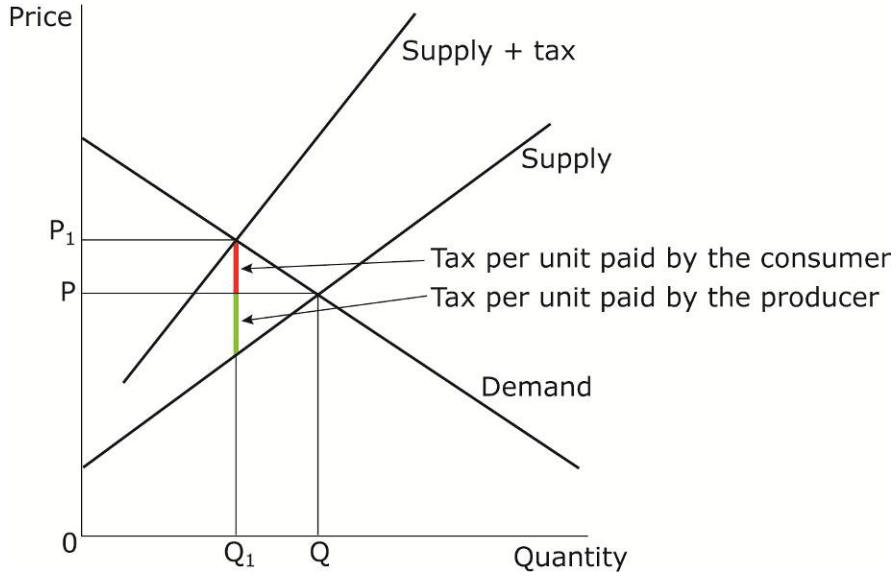
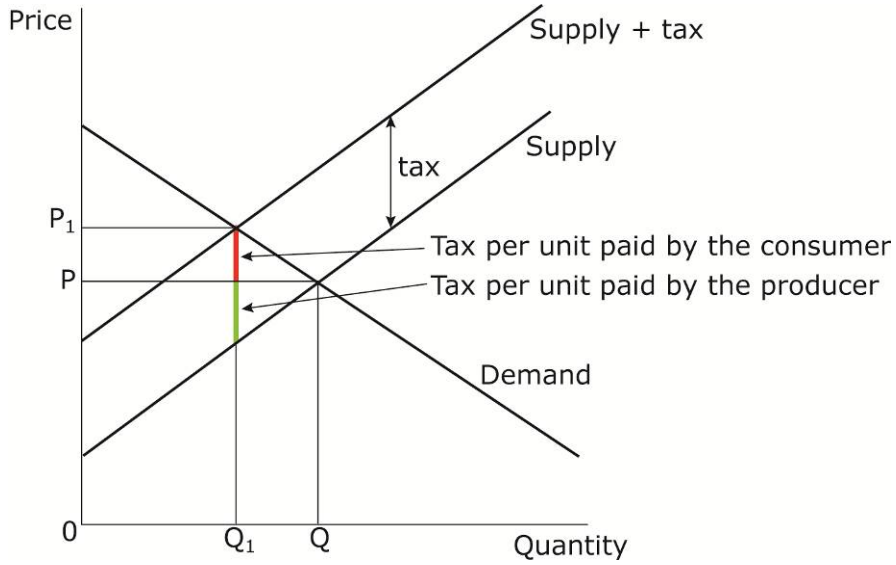


A specific tax is where the tax is a specific amount; for example, a 5p tax on chocolate that is paid whatever the price of chocolate. The supply curve shifts left from supply to supply + tax. The buyer pays part of the tax because of the higher price and the supplier pays part because they now make less revenue.



Subsidies increase supply, leading to a reduced price which encourages production/consumption of a good with positive externalities.

Governments could introduce a minimum price, where goods cannot be sold at a price below this. A minimum price may be set by a government to discourage consumption of a particular good. Pmin is the minimum price and is set above the market price. Qd is the quantity demanded by consumers and Qs is the quantity supplied. Compared to the market equilibrium, firms have extended supply due to the higher prices but the consumers contracted demand. Qs-Qd gives an excess supply/surplus/glut. Scotland's attempts to introduce a minimum price for alcohol might be an interesting case study to use.

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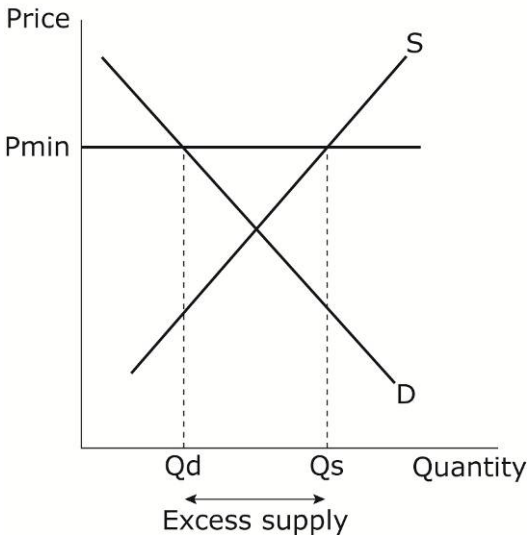
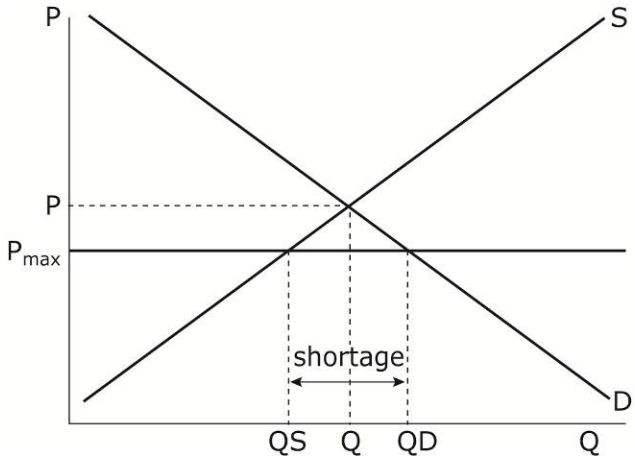
Minimum Price



Governments could introduce a maximum price, where goods cannot be sold at a price above this. A maximum price may be set by a government to encourage consumption of a particular good. Pmax is the maximum price and is set below the market price, P. Qd is the quantity demanded by consumers and Qs is the quantity supplied. Compared to the market equilibrium firms have contracted supply due to the lower prices but consumers have extended demand. Qd-Qs gives an excess demand/shortage. An example of this is Cyprus introducing a maximum price on milk.



b Other methods of government intervention are as follows:

- Trade pollution permits – to tackle negative externalities. The government decides the desired level of pollution and releases a number of permits. These permits can be traded by firms so that low polluters can sell to high polluters for profit.
- State provision of public goods – the government provides a good or service, using tax revenue to fund it. These goods are not provided by the private sector due to the free rider problem.
- Provision of information – the government provides information to consumers to correct any problem of information gaps.

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- Regulation – to tackle negative externalities. The government imposes rules regarding the production or consumption of goods or services. This is usually backed up legally by fines/prison sentences, etc.

1.4.2 Government failure

a Government failure exists when the government intervenes to correct a market failure, but the result is a more inefficient allocation of resources and there is a net welfare loss.

b Students need to be aware of causes of government failure. These include how the government can cause the distortion of price signals, unintended consequences such as smuggling and illicit production, excessive administrative costs and information gaps.

c Examples of markets include: agricultural sector (Cyprus milk maximum price), transport policies (Mexico City and car emissions), housing policies (rent controls), and tobacco and alcohol policies (taxing tobacco and alcohol, leading to smuggling).

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Theme 2: The UK economy – performance and policies

This section provides ideas and suggestions for teaching approaches for Theme 2 and is not intended to be prescriptive. The specification must be referred to as the authoritative source of information.

2.1 Measures of economic performance

This topic includes ideas that students and teachers will return to throughout the course. It introduces the main measures of economic performance used in assessing the UK economy: economic growth, inflation, unemployment and the balance of payments. Students should be familiar with both the theory covered here and its application to the UK economy over the last ten years.

2.1.1 Economic growth

a Gross Domestic Product (GDP) is a very important economic variable. Students should understand what GDP is, both so as to understand the meaning of economic growth figures, but also to be able to appreciate the differences between GDP, Gross National Product (GNP) and GNI (Gross National Income), and the limitations of using GDP to compare living standards.

GDP is the value of all goods and services produced in a country in one year and can be measured by adding up all of an economy's incomes (wages, interest, profits and rents) or expenditures (consumption, investment, government spending and net exports). Both results should be the same because one person's expenditure is always another person's income.

b Students need to understand the various adjustments that can be made to national statistics in order to make them more meaningful. At a more basic level, this includes the distinction between real (adjusted for inflation) and nominal figures, total and per capita figures, and value versus volume.

c Economists refer to several measures of total economic production for individual countries, including Gross Domestic Product (GDP) and Gross National Product (GNP). Another measure seen increasingly is Gross National Income (GNI), essentially an augmented version of GDP.

Gross domestic product (GDP) is the total market value of all goods and services produced in the country in a given year. GDP does not include earnings by its residents while outside of the country.

Gross National Income (GNI) is GDP plus income paid into the country by other countries for such things as interest and dividends.

Gross National Product (GNP) is the total market value of all goods and services produced by domestic residents (GDP) plus income that residents have received from abroad, minus income claimed by non-residents.

d Students should be comfortable using economic growth data to compare and contrast different countries' economic performance, and to draw conclusions about a single country's economic performance over time. Students should also have an appreciation of the assumptions made in such a process, and any other weaknesses. This may link to an understanding of the role of real data, Purchasing Power Parity (PPP) adjustments and per capita adjustments. It is important that economic growth is measured accurately, one reason being that growth is an indicator of the success of current economic policies and a guide to future ones.

e Students need to understand PPPs and have a basic understanding that PPP figures are adjusted for differences in the cost of living between countries.

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f The standard of living does not just refer to income but also to the quality of life and economic welfare.

There are many problems with using GDP figures to compare living standards over time and between countries. For example:

- GDP does not take into account the improving quality of (in particular) technological goods.
- GDP does not include unofficial or unpaid work. The value of goods and services that are consumed by the producers, rather than traded, is also not included. This is a particular issue in developing countries with higher levels of subsistence agriculture.
- Increases in real GDP may not be shared equally among an economy's population: GDP per capita shows average income per person, but the averaging process may mask huge inequalities.
- There may be increases in other problems alongside economic growth. There may be more pollution, congestion, number of hours worked, stress levels – all these can contribute to worsening living standards even for those whose incomes are rising.

g In response to these issues, there has been a move towards measuring National Happiness, rather than just focusing on economic variables. In the UK, the ONS measures National Well-being. Within the area of happiness economics there has been much debate about the 'Easterlin paradox', the idea that happiness does rise with average incomes, but only up to a point. Beyond this, the marginal gains in happiness fall, perhaps because people care about relative as well as absolute incomes.

2.1.2 Inflation

a Students are required to distinguish between inflation, deflation and disinflation when presented with data in written, graphical, tabular and numerical forms.

b (b to d) The use of indices is intended to make comparisons easier over time and between countries, and a base year is chosen to make effective comparisons. Students should be confident working with indices.

Students should understand that the UK calculates both the CPI and the RPI on a monthly basis. Both measures use a 'shopping basket' of approximately 700 goods and services. The prices of most of these items are collected from around 150 different locations each month. The indices are weighted to reflect the importance of the various items. The weights for the RPI are mainly derived from the ONS's Living Costs and Food Survey. Both the contents of the baskets and the weights are updated annually.

e Inflationary pressures may come from different sources. Students should understand that increases in aggregate demand (AD), or decreases in (short-run or long-run) aggregate supply (AS) in an economy may cause the average price level to rise. This can be illustrated on an AD/AS diagram.

Students should also be aware that growth of the money supply will cause increased inflationary pressures, as individuals and firms may spend their excess money on goods and services, raising aggregate demand. In addition, the increase in the demand for labour resulting from higher demands for goods and services will cause a rise in wages and costs of production.

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f Students should be able to explain the effects of inflation on consumers, firms, the government and workers. These may include effects on:

- UK international competitiveness
- uncertainty and business planning and investment
- the real value of savings
- the purchasing power of those on fixed incomes
- economic growth and unemployment (the short run Phillips curve).

A rapid rate of inflation might cause a wage-price spiral and an increase in menu costs and shoe leather costs.

2.1.3 Employment and unemployment

a In the UK, unemployment is measured by both the claimant count and the International Labour Organisation (ILO) measure.

In times of economic prosperity the claimant count and the ILO measures tend to move apart, with the ILO measure higher than the claimant count, and the opposite in an economic slowdown. The study of the reasons for these changes gives a deeper understanding of how the measures are made.

b The idea of under-employment became particularly important in the aftermath of the 2008 Global Financial Crisis. The number of under-employed workers was fairly stable over the period before the onset of the economic downturn in 2008, but between 2008 and 2012 it increased by 47%. In the UK, the ONS defines an under-employed worker as someone who is currently in employment, but wants to work more hours.

c Employment and unemployment are not the opposite sides of the same issue – in fact the number of people in work in the UK is often increasing at the same time that unemployment rises. This might be caused by increased immigration, for example, so there are more people in the labour market, some of whom get jobs and some who do not or replace others already working. Alternatively, it could be because the number of people who are inactive is falling. Economically inactive people are those aged between 16 and 64 who are not available for work, or not looking for work. This includes full-time students, homemakers, those who are too sick or disabled to work long term, those who have taken early retirement and 'discouraged' workers.

d There are various names for different types of unemployment. For example, cyclical or demand deficient – the idea that unemployment levels might be related to the business cycle – and classical or real-wage – that unemployment might be positively related to wage pressures, especially when wages are deliberately maintained above equilibrium level. The relative importance of some types might be considered, for example, that structural unemployment might have long-term detrimental effects, whereas frictional unemployment might not. Other types should also be considered: for example, seasonal. Each type of unemployment has different implications for government policy.

e Students should be aware that a lack (or abundance) of skills in an economy is likely to impact on the occupational mobility of labour and the rates of employment and unemployment. This is likely to be linked to the concept of structural unemployment. Students should also have a basic understanding of the effects of net inward or outward migration on an economy's employment and unemployment rates, and how the skill levels of migrants might affect this.

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f Unemployment has predominantly negative effects on the individuals involved, firms, the government and the whole of society, such as: lower standard of living for consumers; falling sales, revenues and profits for firms; lower tax revenues for the government combined with higher expenditure on benefits; and opportunity cost – the goods and services which could have been produced by the unemployed.

2.1.4 Balance of payments

a The four elements of the current account of the balance of payments (trade in goods, trade in services, investment income and international transfers) should be understood, and their relative importance to the UK economy appreciated, although the focus is on trade in goods and services. Time series data should be used to show the context of an imbalance.

b Students should understand what is meant by an economy having either a current account deficit or a current account surplus, and be able to analyse some factors which might lead to either of these. See section 2.2.5 for more detail here.

c Changes in the balance of payments on the current account should also be understood, from the viewpoint of their effect on an economy, particularly in relation to achievement of the government's other macroeconomic objectives. It would be beneficial to consider whether the costs of trying to correct a trade/current account imbalance are worthwhile in terms of the damage they may cause to other economic variables.

d Students should understand that one country's exports are another country's imports. In this way, the sum of all countries' trade balances will theoretically be zero. Economic conditions in one country might impact on economic conditions in another country through their impact on demand for imports; for example, through their impact on demand for imports.

2.2 Aggregate demand (AD)

This topic introduces AD and its components. Students need to understand the main factors which influence each of the components and how changes in these factors would affect AD.

2.2.1 The characteristics of aggregate demand (AD)

a (a and b) Students should have an appreciation of the relative importance of the components of AD for the UK economy: household consumption (C) makes up approximately 60% of AD, government spending (G) accounts for approximately 25% of AD, investment (I) is around 15% of AD, and net exports (X-M) around 1% of AD. Therefore a 1% increase in consumption would have a much greater effect on the UK economy than a 1% increase in any of the other components of AD.

c Aggregate demand is drawn as downward sloping for several reasons. First, the real balance effect; for example, an increase in the average price level reduces the purchasing power of households, businesses, government and the foreign sector, so reducing the quantity of real output demanded.

Another reason for drawing a downward sloping AD are that, at higher average prices, an economy is less likely to export, more likely to import (decreasing the X component and increasing the M component of AD, and therefore decreasing AD overall) – the international competitiveness argument.

A third reason why the AD curve slopes downwards is that, at higher average prices, the interest rate is likely to be higher, meaning that investment (a component of AD) is lower. Households and firms might also save more.

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d Students should be aware that a change in the average price level in an economy will cause a movement along the AD curve, while a change in the value of the components of AD will cause a shift of the curve.

2.2.2 Consumption (C)

a Disposable income is the income that an individual receives after having paid any direct taxes and received any transfer payments/benefits. We expect there to be a positive relationship between disposable income and consumption.

b Generally, as consumers save more, they spend less, and vice versa. The (household) savings ratio gives an idea of the average extent of saving for all households in the economy. It is calculated as the percentage of disposable income that is saved.

c The interest rate is a major influence on consumer spending. As interest rates rise, consumers have more incentive to save, as the return on saving rises, so tend to substitute saving for spending. In addition, the cost of buying on credit rises and interest payments on any variable rate loans/mortgages already taken out will rise, reducing consumers' discretionary income. Rises in the interest rate may also lead to a fall in average house prices (as demand for houses falls because of the increased cost of taking out a mortgage), creating a negative wealth effect in the economy.

The amount that consumers spend is largely influenced by the confidence of the consumer; for example, are they worried about losing a job, confident that shares and house prices are growing, or saving because of worries about a small pension?

Actual changes in the economy (such as rises in the FTSE or in average house prices) can cause real spending increases if people decide to trade in their increased wealth or may simply increase confidence in spending. In contrast, falling share prices or falling house prices might cause people to reduce spending.

2.2.3 Investment (I)

a Students should understand that net investment accounts for the depreciation of capital, while gross investment is before depreciation is taken into account.

b Students should understand the range of factors which might influence the level of investment in the UK economy. The interest rate, as the cost of borrowing, is likely to have an inverse relationship with the amount of investment – only a few projects will be viable if the cost of credit is high.

Increasingly, business confidence is regarded as a particularly significant influence on a firm's decisions to invest. The use of the term 'animal spirits' by Keynes referred to a particular sort of confidence; 'naive optimism', where entrepreneurs, encouraged by a rising market, tended to take too many risks.

In contrast, Keynes thought that if there was great uncertainty, only a manic, strong-willed entrepreneur would put capital at risk. When animal spirits are strong, investment is sufficient to maintain aggregate demand; when they are weak aggregate demand falls, and the economy lapses into depression.

Examples of these contrasting situations could be explored.

Following on from the 'credit crunch', students should also have an appreciation that banks may not be willing to lend to firms even if firms do wish to borrow.

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2.2.4 Government expenditure (G)

a Government spending is by central and local government on goods and services. See section 2.5.3 for details of what students need to know about the trade cycle.

Students should understand how government spending on means-tested benefits rises as the trade cycle enters the slowdown and recession phases and falls as economic growth picks up.

In addition, the government may choose to change the level of government expenditure as part of its fiscal policy. It is useful to analyse the annual UK Budget and Autumn Statement in terms of students seeing what fiscal policy changes the government is making, and tracing through their likely effect on UK AD.

2.2.5 Net trade (X-M)

a Students should be able to analyse some factors which might affect the UK's (net) trade balance. Imports into the UK are usually normal goods. Therefore, an increase in real incomes in the UK will lead to an increase in demand for imports, *ceteris paribus*, worsening the UK's net trade balance.

If the exchange rate strengthens (i.e. the pound gets stronger) then exports will become relatively expensive and imports relatively cheap. This would worsen the UK's trade balance. However, if the competition is based on quality rather than price, then the changes in demand might not be significant and the trade balance might not suffer at all.

Students also need to understand how the economic performance of other economies affects the trade balance of the UK; for example, how slow growth in the Eurozone in 2012 to 2014 affected the UK's export sales.

Students need to understand that protectionism (i.e. restrictions on free trade such as tariffs) will have an impact on the UK's net trade balance.

2.3 Aggregate supply (AS)

This topic introduces aggregate supply (AS) and distinguishes between the short-run and long-run AS curves. Students need to understand the main factors which influence each of these. This topic also introduces students to the debate between the Keynesian and classical schools of economic thought as to the shape of the long-run AS curve.

2.3.1 The characteristics of AS

a (a to c) The short-run AS curve might be shown as either a straight, upward sloping line or a static backward-bending L-shape (Keynesian). The positive gradient might be explained either because all the industry supply curves that are added together to form the SRAS curve are upward sloping or because, if real output is to increase in the short run, firms will have to pay overtime or more money for the quick delivery of raw materials, etc. As such, as real output rises, costs per unit to the firms and industries are likely to rise. These increased costs will tend to be passed on to the consumer through higher prices, so the increase in real output has resulted in a rise in the average price level.

Movements along the AS curve occur when there is a shift in AD, as a new equilibrium point is established. Shifts of the AS curve occur when there is a change in the conditions of supply in the macroeconomy.

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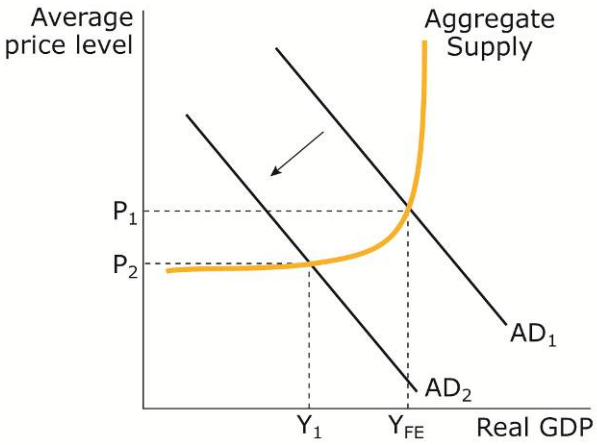
2.3.2 Short-run AS

a Short-run AS will be influenced by firms' costs of production; for example, a change in the price of oil or another major commodity/raw material. If the UK imports a raw material, then its cost will also be affected by the exchange rate.

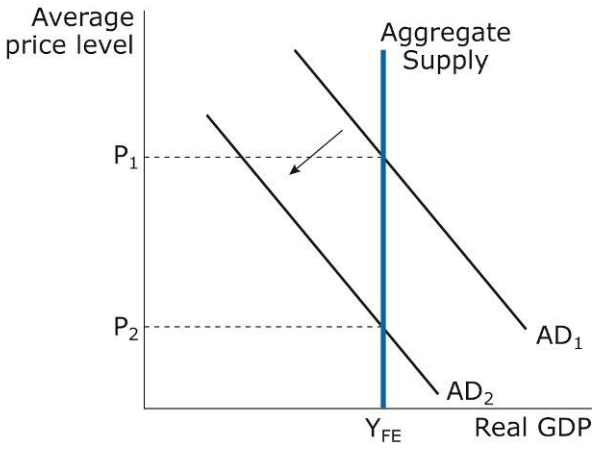
2.3.3 Long-run AS

a Students should understand that the classical LRAS curve is perfectly inelastic. Classical economists believe that in the long run all markets will clear, meaning that there can be no output gap in the long run, and instead the economy will always return to producing at its maximum potential level of output.

Conversely, Keynesian economists believe that it is possible to have a long-run equilibrium where markets do not clear and so there can be spare capacity in an economy in the long run. The shape of the Keynesian LRAS curve shows that when there is lots of spare capacity in the economy, it is possible to increase the level of real output with no resulting increase in the average price level. As spare capacity begins to be used up, a rise in real national output will cause the costs of the factors of production to rise, so the price level rises with output. Eventually, the economy will reach full employment, where output cannot be increased since all the factors of production are being utilised. This final section of the Keynesian LRAS curve is the same as the classical LRAS curve.



Keynesian LRAS curve



Classical LRAS curve

b Long-run AS in an economy will be affected by factors that change the quantity or quality of the factors of production; for example, improved education will (in time) increase the quality of labour in the economy and increase LRAS, while an increase in immigration would increase the quantity (ignoring any effects on the average quality) of labour in the economy, also leading to an increase in LRAS.

2.4 National income

This topic introduces some important concepts: the circular flow of income model and the multiplier. Students need to understand these ideas in and of themselves, but also their impact on other topics covered; for example, the significance of the multiplier to shifts in AD and hence to the use of AD/AS diagrams to show how events in the economy cause changes in the equilibrium price level and real national output.

Detail has been included on calculating the value of the multiplier and students need to be confident in analysing the effects of the multiplier in a quantitative, as well as a qualitative, manner.

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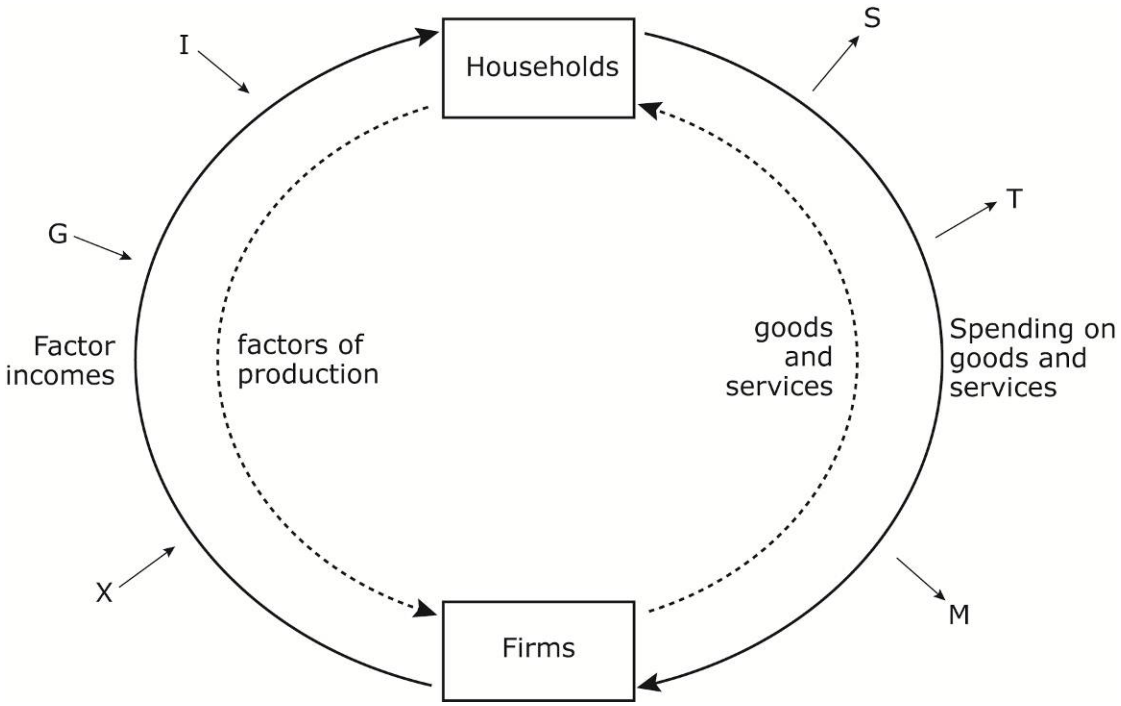
2.4.1 National income

a A simple diagram of the circular flow of income could be used in this section:



The purpose of the diagram is to stress the concept of money flows, which are changed, with multiplied effects, when there is a change in injections or withdrawals.

b Students should understand the difference between income as a 'flow' concept, and wealth as a 'stock' and should be able to give some examples of both. They should also appreciate that if income increases are going to have a direct impact on wealth then a decision must be made to forego current consumption in order to enjoy increased welfare in the future – that is, the opportunity cost of the increased future welfare is current consumption.

2.4.2 Injections and withdrawals

a Students should understand that government spending (G), investment (I) and exports (X) are injections into the circular flow of income, and taxation (T), savings (S) and imports (M) are withdrawals (or leakages) out of the circular flow.

When injections are greater than withdrawals the amount of money in the circular flow increases, representing economic growth. When injections are less than withdrawals the amount of money in the circular flow decreases, representing a fall in real GDP.

Students should be able to analyse changes in the economy in terms of their impact on the circular flow; for example, a rise in the interest rate would be expected to increase saving, a withdrawal, and decrease investment, an injection, reducing the amount of money in the circular flow of income, *ceteris paribus.*

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2.4.3 Equilibrium levels of real national output

a Equilibrium income or equilibrium real national output occurs where planned AD equals planned AS.

b Students are required to draw AD/AS diagrams to show the effects of changes in AD, SRAS and LRAS (Keynesian and classical) on the equilibrium price level and the equilibrium real national output level.

2.4.4 The multiplier

a The multiplier ratio is the ratio of a change in equilibrium real income to the autonomous change (the injection) that brought it about. For example, if a £1m injection into the circular flow results in a £2m increase in national income, the value of the multiplier is 2.

b (b, c and f) An injection into the circular flow of income, such as the sale of exports, means that there is an immediate increase in AD. However, the extra income raised by selling goods and services abroad will increase the incomes of those making the goods and services and at least some of this income will be spent in the economy. Whatever is not withdrawn from the circular flow will cause second round increases in AD, which lead to further rounds of income and spending. These knock-on effects are the multiplier effects of injections. When injections decrease, the process works in reverse – i.e. there will be a downward multiplier effect.

Students should understand that the most important factor in determining the size of the multiplier is the size of the withdrawals from the circular flow – what proportion of the additional income is saved by households, what proportion is spent on imported goods and what proportion is paid to the government in the form of taxation.

d (d and e) The multiplier is inversely proportional to the marginal propensity to withdraw (MPW) – the proportion of one unit of additional national income which is withdrawn from the circular flow, or the sum of the marginal propensities to save, tax and import (MPS + MPT + MPM). Students will be expected to know the stated formulae and to perform simple calculations involving them.

2.5 Economic growth

This topic brings together several different aspects of economic growth. Students are asked to consider the difference between actual and potential growth, the possible causes of growth, and its positive and negative consequences. Periods of growth are placed in context by looking at the trade cycle model, and in particular the likely characteristics of periods of high growth (booms) and periods of negative growth (recessions). The concept of the output gap is also introduced and linked to ideas of recession and boom.

2.5.1 Causes of growth

a Economic growth can be achieved by increases in the components of aggregate demand; for example, an increase in investment. The size of this growth depends on the size of the multiplier and also on the shape of the AS curve drawn.

Growth can also be achieved by increases in the quantity or improvements in the quality of any of the factors of production; for example, productivity growth or immigration. The effect is to shift the AS curve to the right.

It is important to be able to compare and contrast the causes of growth and to be able to illustrate them with an AD/AS diagram.

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b Actual growth is measured as an increase in real GDP and potential growth is an increase in the capacity of the economy.

c Some countries (for example, China) have generated economic growth through huge increases in the value of their exports – export-led growth.

2.5.2 Output gaps

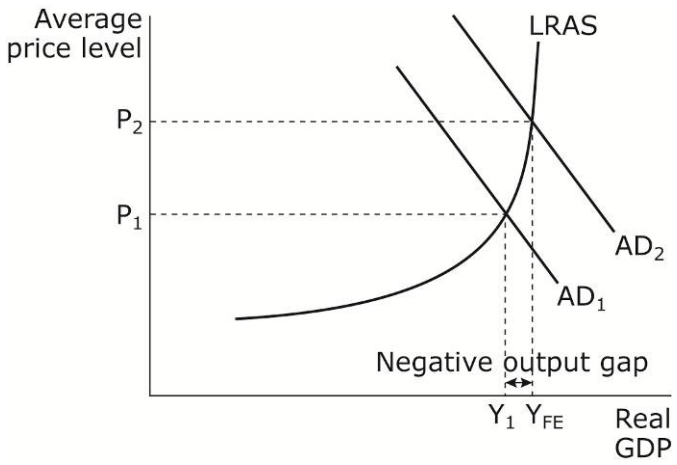
a Trends in the growth rate are shown by changes in real GDP over time; these may be compared with changes in capacity over time or compared with the trend or sustainable rate of growth.

b The difference between actual real GDP and maximum potential real GDP is the output gap. If actual real GDP is less than potential real GDP, then there is a negative output gap. This signifies that the economy is operating with spare capacity and unemployment is likely to be relatively high. In the short run, it may be possible for actual real GDP to be greater than potential real GDP: a positive output gap. In this case, the economy is operating at over-capacity and inflationary pressures are likely to be increasing.

It is very difficult to estimate the size of the output gap for an economy, as it involves estimating the economy's maximum potential output level.

c An AD/AS diagram can be used to show the size of the negative output gap in an economy and students should be able to analyse how changes in the economy that affect AD and AS also affect the likely size of the output gap.

Keynesian economists believe that a negative output gap can exist in the long run as well as the short run:



Classical economists believe that negative and positive output gaps can only exist in the short run:

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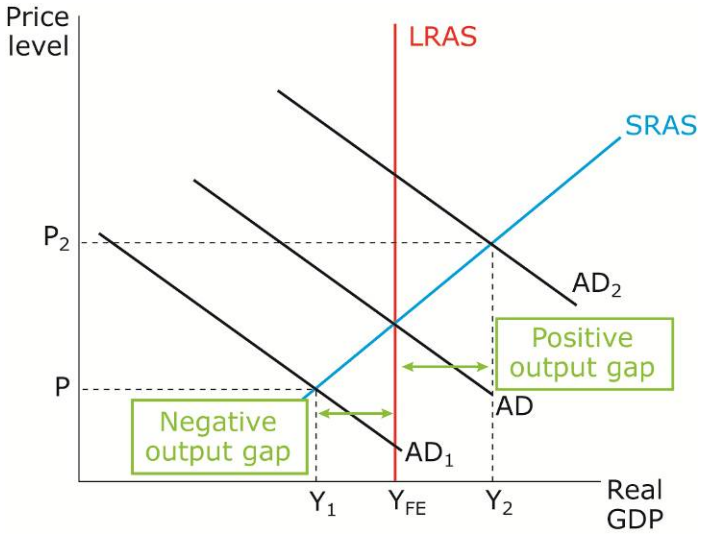
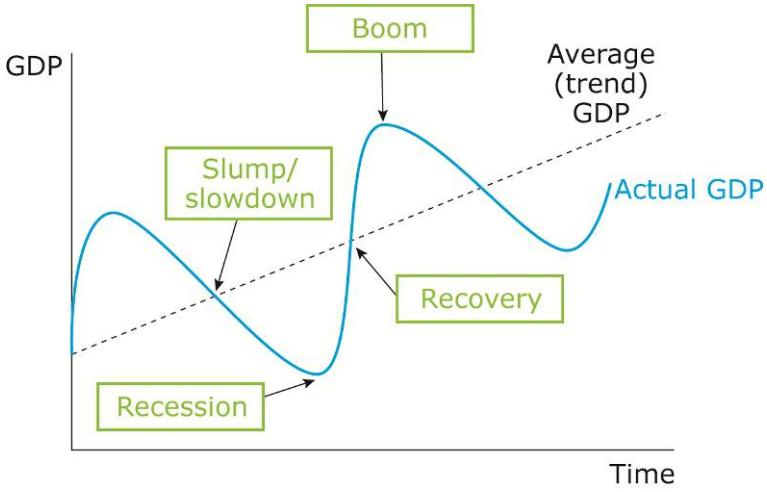


2.5.3 Trade (business) cycle

a The trade or business cycle describes how the economy tends to exhibit recurring trends in economic growth rates. Booms tend to be followed by economic slumps or slowdowns, which tend to be followed by recession, before the economy moves into the recovery phase, and then back into a boom.



b In a boom period there tends to be:

- high rates of economic growth
- low rates of unemployment (low levels of spare capacity or perhaps even a positive output gap)
- demand-pull inflationary pressures
- high consumer and business confidence
- improving government budget balance (as tax revenue rises, and government expenditure on benefits falls).

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c In the UK, a recession is defined as a period of two or more consecutive quarters of negative economic growth. In a recession there tends to be:

- negative rates of economic growth
- high rates of unemployment – particularly demand-deficient unemployment (high levels of spare capacity and a large negative output gap)
- low rate of inflation
- low business and consumer confidence
- a worsening government budget balance.

2.5.4 The impact of economic growth

a Students should explore the benefits of economic growth, such as:

- higher standards of living, as average incomes rise and more goods and services are available for consumption
- increased revenues and profits for firms
- increased employment opportunities
- an improvement in the government budget balance
- a decrease in absolute poverty rates
- increased consumer and business confidence, leading to more investment
- improvement in the environment as more efficient, cleaner technology is developed.

The costs of economic growth include factors such as:

- a negative impact on the environment as non-renewable resources are used up and negative production externalities are created
- the opportunity cost of growth – in order to produce more capital goods today, we have to forego the production of consumer goods
- an increase in relative poverty/income inequality
- a worsening of the trade balance as consumers purchase more imports with their increased average incomes and increased inflationary pressures reduce the competitiveness of exports
- macroeconomic instability as high inflation leads to boom and bust cycles
- the social effects of increased production – more stress, less leisure time.

Students may create links with 2.1.1 by considering whether an increase in income necessarily increases living standards. Students could also consider whether economic growth is beneficial and what factors determine whether the benefits of economic growth outweigh the costs (or vice versa).

2.6 Macroeconomic objectives and policies

This topic introduces the different possible macroeconomic objectives of governments and how they might conflict. This is an important topic as it also includes the types, effects and evaluation of demand-side (fiscal and monetary) and supply-side policies. In addition to their general knowledge of the UK economy over the past ten years, students should apply their knowledge of demand-side policy to analyse the likely effects and effectiveness of US and UK policy responses to both the Great Depression and the Global Financial Crisis.

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2.6.1 Possible macroeconomic objectives

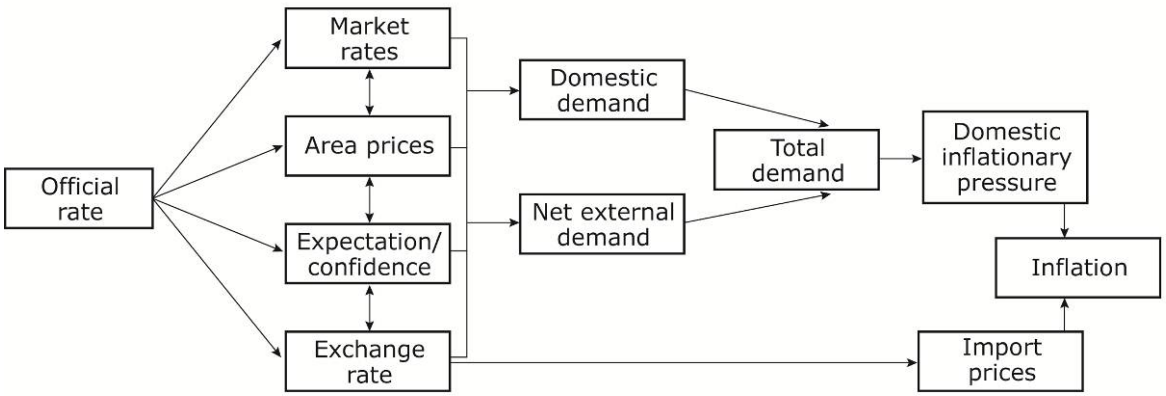
a (a to g) Students should have a sense of the trends in macroeconomic measures over the past ten years and the stage at which governments might become concerned about them. The side effects of macroeconomic problems could be considered and the changing importance of objectives might be used as ways of weighing up which objectives are the most important to a government; for example, the more recent focus on reducing the government budget deficit.

2.6.2 Demand-side policies

a Students should understand that monetary policy involves using interest rates and the money supply to affect AD, while fiscal policy involves government spending and taxation. In the UK, monetary policy is currently conducted by the Bank of England, while fiscal policy is conducted by the Government.

b The diagram below illustrates the transmission mechanisms involved with changes in the Bank Rate in the UK:

The transmission mechanisms of monetary policy



Note: for simplicity this figure does not show all interactions between variables, but these can be important.

Students should also have a basic knowledge of how quantitative easing has been used in the UK and how increases in the money supply would be expected to affect aggregate demand.

c The two instruments of fiscal policy are government spending and taxation. The operation of fiscal policy involves the government changing the levels of these two variables so as to affect the economy.

d Students should be able to define, and understand what is meant by, a budget (fiscal) deficit and a budget (fiscal) surplus.

e A direct tax is a tax on income, such as income tax, corporation tax or capital gains tax. An indirect tax is a tax on expenditure on goods and services, such as VAT, excise duty or stamp duty.

f Students should be able to use AD/AS analysis to explain and illustrate the effects of demand-side policies.

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g The Bank of England's Monetary Policy Committee (MPC) meet on at least a monthly basis to set the Bank Rate and, if applicable, the level of the asset purchase facility (quantitative easing). Students should explore the different factors and data that the MPC consider in coming to their decision. In May 2014, the UK inflation target was 2% CPI; in assessments the data chosen will make use of the target currently in use by the body in charge of monetary policy. These factors may change and it is important that students have a good working knowledge of contemporary monetary instruments, operations and targets.

h Students do not need to know about the likely causes of the Great Depression or the Global Financial Crisis of 2008; neither do they need to know about the gold standard, other than that it sets a rate of conversion for a currency into gold. Rather, these are two contexts in which students can apply their knowledge of demand-side policies – an ability to analyse the likely effects of the policies is more important than recall of the precise details of the policies.

Demand-side policies in the Great Depression:

Fiscal policy

In the US, Roosevelt's New Deal involved a huge fiscal stimulus package, as the US government increased its spending massively. The money was spent on building public infrastructure, and employing people in both conservation and construction. There is debate surrounding the extent to which the New Deal helped to end the Great Depression or whether it was really the huge government spending on fighting the Second World War that did so.

In addition, the US government introduced protectionist policies like the Smoot–Hawley Tariff Act in 1930. (Knowledge of the details of the Act is not required.)

In the UK, focus was more on efforts to balance the government budget. In 1931, an Emergency Budget cut public sector wages and unemployment pay by 10% and raised income tax from 22.5% to 25%. These measures were deflationary and reduced purchasing power in the economy, worsening the situation.

In 1932, the UK government introduced tariffs at a rate of 10% on all imports except those from the countries of the British Empire.

Monetary policy

Economists disagree as to the effect of monetary policy on the course of the Great Depression in the US. Some blame tight monetary policies for the start and the length of the Depression, while others disagree even that monetary policy was tight. In February 1930, the Federal Reserve cut the interest rate from 6% to 4%, although in late 1930 it raised it again to help to preserve the value of the dollar after substantial amounts of dollars were converted into gold, weakening the currency. Critics argue that these increases in the interest rate further restricted the availability of credit for businesses, causing more bankruptcies.

The US government acted to increase the money supply from April to June 1930, but economists are divided over the effectiveness of this.

In the UK, in September 1931 the government was finally forced to abandon the gold standard. Immediately the exchange rate of the pound fell by 25%, which improved the international competitiveness of the UK. Following this, interest rates were also reduced from 6% to 2%, adding to the economic recovery.

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Demand-side policies in the Global Financial Crisis:

Fiscal policy

In 2008, the US government instituted the Economic Stimulus Act of 2008, a $152 billion fiscal stimulus package. This was followed by the American Recovery and Reinvestment Act of 2009, a $787 billion bill which involved government spending over a period of several years.

In the UK, a number of fiscal measures were introduced throughout 2008, including a tax cut for basic rate tax payers, a temporary 2.5 percentage point cut in the VAT rate, £3 billion worth of investment spending brought forward from 2010 and a variety of other measures such as a £20 billion Small Enterprise Loan Guarantee Scheme. Further measures were unveiled in the 2009 Budget, including training help for the young unemployed and a 'car scrappage' scheme. However, from 2010 focus moved to measures to reduce the budget deficit.

Monetary policy

In the US, the Federal Reserve cut the interest rate from 5.25% to 4.25% over the final three months of 2007, and then cut it a further seven times over the course of 2008, to go to a rate of 0–0.25%.

In addition, the US used three rounds of quantitative easing (QE) in order to boost the money supply – QE1 in 2008–2009, QE2 in 2010 and QE3 in 2012. These led to the Federal Reserve increasing the value of the assets it held from less than $1 trillion in 2007 to more than $4 trillion in January 2014. Despite the size of this increase, economists are still debating how effective QE has been.

In the UK, the MPC cut the Bank Rate from 5.75% to 5.5% in December 2007. Over the course of 2008 it was cut a further five times, to take it to 2.0% by the end of the year. Three further cuts in the first three months of 2009 took it to a historic low of 0.5% in March 2009.

Between March and November 2009, the MPC authorised the purchase of £200 billion worth of assets, mostly UK government debt or 'gilts'. The MPC voted to begin further purchases of £75 billion in October 2011 and, subsequently, at its meeting in February 2012 the Committee decided to buy an additional £50 billion. In July the MPC announced the purchase of a further £50 billion to bring total assets purchases to £375 billion.

i Students should be able to use AD/AS analysis to explain and illustrate the effects of demand-side policies and to discuss their likely strengths and weaknesses. When doing so, they should be careful to relate their analysis to the achievement of the stated aim of the policy.

2.6.3 Supply-side policies

a A supply-side policy is a government scheme to promote market forces, cut costs and to raise the full employment level of output.

Students should be able to distinguish between market-based and interventionist supply-side policies. Market-based policies focus on the power of the free market, or allowing the forces of supply and demand to eliminate equilibria imbalances. The role of the government in market-based policies is limited since it tends to interfere with the market mechanism. Conversely, interventionist policies focus on the need for the government to intervene in markets to achieve a goal.

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b Market-based supply-side policies include:

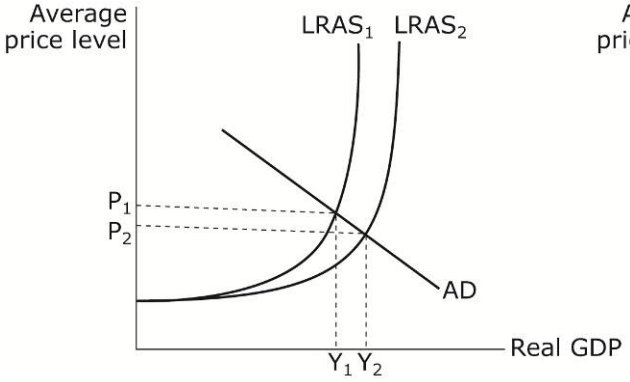
- reducing income and/or corporation tax rates
- deregulating and/or privatising the public sector
- reducing or abolishing the national minimum wage and trade union power
- reforming the benefits system to encourage workers to take available jobs
- encouraging free trade.

Interventionist supply-side policies include:

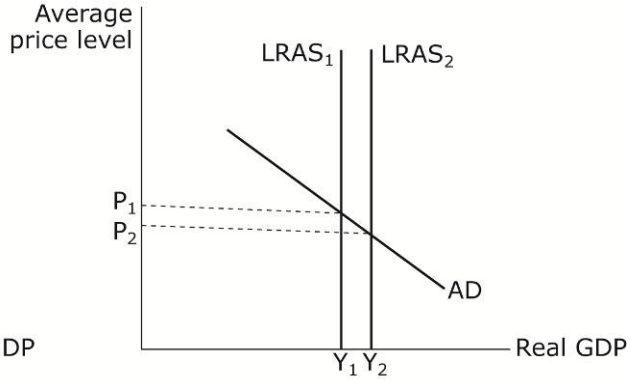
- increased government spending on education and training
- increased government spending on healthcare
- increased government spending on infrastructure
- stricter government competition policy
- policies to reduce the geographical immobility of labour, such as improving information on job vacancies and subsidising worker relocation.

Now that many UK firms have been privatised, the standard argument that a government can sell off state-owned businesses is losing its potency. It is stronger to argue that competition between firms can be improved, with descriptions and examples of how this might be achieved. Similarly, in relation to reducing trade union power in the UK, students should focus on additional measures that might be undertaken, rather than what has already been done.

c Students are required to show the likely impact of successful supply-side policies using either a Keynesian or a classical long-run aggregate supply curve on an AD/AS diagram:



Keynesian long-run AS curve



Classical long-run AS curve

d Students should be able to discuss the likely strengths and weaknesses of supply-side policies. When doing so, they should be careful to relate their analysis to the achievement of the stated aim of the policy.

2.6.4 Conflicts and trade-offs between objectives and policies

a (a to c) The Phillips curve, an empirical observation in 1958, comments that a shortage of labour might set off an increase in wages. The implication is that there might be a trade-off between reductions in unemployment and increases in inflation. This is set against the classical view that there is only unemployment if wages are too high – that is, if the supply of labour is greater than the demand for labour – in which case if more people are allowed to become unemployed the pressure on wages will fall. Knowledge of the short-run Phillips curve only is required.

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Another trade-off that may be considered is between economic growth and the current account of the balance of payments. If an economy is growing quickly, as in India, it is likely to suck in many imports and exporters have a reduced incentive to export if the output can be sold at home. However, if the growth is export-led, as in China, economic growth may improve the current account. (Note that country-specific data is not required.)

Growth may damage the environment if it involves increased manufacturing but if service based it may not. Indeed, the increased incomes from growth might enable a country to convert to cleaner or renewable fuels or tighten environmental legislation.

There is some overlap with 2.5.4 here, as students may also consider the possible conflicts between achieving economic growth and reducing income inequality, and between achieving economic growth and controlling inflation.

There are many more potential conflicts between objectives and in particular students should be confident in using AD/AS analysis to explain, illustrate and evaluate these.

Students should also have an awareness of possible policy conflicts and trade-offs that may arise. For example, an increase in government spending (part of fiscal policy) is likely to have a direct, positive impact on the supply-side of the economy through improved standards of healthcare or education, or through the impact of changes in taxes and benefits. However, the increased spending might cause problems in supply in the short run, leading to increased demand-pull inflationary pressures in the economy.

Alternatively, increasing interest rates (monetary policy) in order to control inflation is often seen as being damaging to the supply-side of the economy. If higher interest rates reduce investment in the economy, then this may lead to increased cost-push inflationary pressures, while reducing demand-pull inflationary pressures.

Other policy conflicts also exist, and students should be able to analyse these and use them to evaluate the effectiveness of a suggested macroeconomic policy.

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Theme 3: Business behaviour and the labour market

This section provides ideas and suggestions for teaching approaches for Theme 3 and is not intended to be prescriptive. The specification must be referred to as the authoritative source of information.

3.1 Business growth

In this topic students will explore business size, why some remain small and why others might grow, and how they do this. When looking at how businesses grow students will consider the advantages and disadvantages of each method. Students will also explore reasons for, and the impact of, demergers.

3.1.1 Sizes and types of firm

a A starting point could be to explore why firms grow and how the following might make a firm seek growth:

- Profits – to generate more profits to give shareholders a better return.
- Costs – to benefit from economies of scale, resulting in lower unit costs of production.
- Market power – to become a more dominant force in their market; if a firm dominates the market it can increase its prices.
- Reducing risk – firms might want to diversify so that if sales drop in one market they have another market to generate sales.
- Managerial motives – senior managers may wish to grow in order to control a larger business.

This can be contrasted with why some firms remain small. Possible reasons include: lack of finance for expansion; avoiding diseconomies of scale; providing niche products which have a low PED or high YED; offering a more personal service as they get to know customers and their needs; acting as suppliers; and acting as local monopolies at specific times.

b Students need to consider the significance of the divorce of ownership from control. Shareholders own the business and appoint directors and managers to run it on their behalf. Shareholders want to maximise profits to maximise their dividends, whereas managers might have different motives, such as wanting to increase sales and revenue at the expense of profits. This divorce of ownership creates the principal-agent problem. The principal is the shareholder and the agent is the manager and their divergent aims. This may lead to the business growing larger than a firm aiming to maximise profit.

c Students are required to know and understand the difference between public and private sector organisations.

d Students are required to know and understand the difference between profit and not-for-profit organisations.

3.1.2 Business growth

a Examples should be used to support understanding of how businesses grow:

- Organic growth is where a business grows internally by reinvesting profits or borrowing from banks. Reasons for internal growth include: to increase market share; the development of new innovative products, finding new markets to sell its existing products, getting existing customers to buy more products through advertising or investing in new capital or technologies to expand production. Examples include Subway, Wasabi, Poundland and Hotel Chocolat.

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- Forward and backward vertical integration is where two businesses at different stages of production, but in the same industry, join together. Forward vertical is where one firm integrates with a firm in a stage of production closer to the customer, such as a brewer buying pub chain. Backwards vertical is where a firm integrates with another in the stage of production further away from the customer, such as a car manufacturer buying a tyre manufacturer.
- Horizontal integration is where two businesses at the same stage of production in the same industry join together, such as a merger between two banks or two chocolate manufacturers. Examples include Virgin Money and Northern Rock, and Amazon and LoveFilm.
- Conglomerate integration is where two businesses in different industries merge. For example, Tata's acquisitions in different sectors including Jaguar Land Rover, Corus, Ritz-Carlton hotels, British Salt, Citigroup and Tetley.

b Students should consider the advantages and disadvantages of each. Examples include the following:

- Vertical integration – advantages include greater control over the supply chain resulting in reducing costs and improving quality, and better access to raw materials; disadvantages include different cultures in businesses and diseconomies of scale.
- Horizontal integration – advantages include economies of scale, spreading risk, allowing rationalisation and reducing competition; disadvantages include different cultures in businesses and diseconomies of scale.
- Conglomerate integration – advantages include reducing risk by operating in different markets and benefiting from knowledge from the other market; disadvantages include the requirement for different skills, not necessarily benefiting from economies of scale and cultural difference.

c Students need to consider constraints on business growth, including the size of the market, limited access to finance, owner objectives and regulation.

3.1.3 Demergers

a A demerger is when a business sells off one or more of the businesses that it owns into a separate company. Reasons for demergers include: cultural differences, creating more focused firms, protecting the value of the firm, reducing the risk of diseconomies of scale, raising money from asset sales and return to shareholders to meet requirements of competition authority regulators. Examples include the Foster's Group demerging its wine and beer divisions and Lloyds TSB Banking Group demerging to create two separate banks – TSB and Lloyds Bank.

b Students should be able to consider the impact of demergers on businesses, workers and consumers, such as:

- businesses – allowing focus on the core business, raising funds from selling part of the business, removing loss-making parts of the business
- workers – increased job security if loss-making parts of the business are demerged, reduced conflict between cultures, increased focus on the business to enable it to be more profitable
- consumers – greater competition leads to lower prices, more focused businesses are able to better meet consumer needs.

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3.2 Business objectives

This section introduces students to the key goals of businesses. Profit maximisation can be connected with rational decision making and the assumption of profit maximising should be challenged. Students should consider that people running businesses are likely to have different goals and therefore may revenue and sales maximise. Understanding what satisficing is and why it is likely to occur is useful here. This topic requires diagrams and students should be able to produce diagrams and use formulae to illustrate different business objectives.

3.2.1 Business objectives

a Students should consider what motivates a firm and the main participants and influencers of firms, including owners, directors and managers, workers and consumers.

The assumption of rationality means that shareholders will seek to maximise their utility by maximising profits. Profit maximisation occurs where Marginal Revenue is equal to Marginal Costs (MR=MC).

As shareholders will be motivated by maximising their dividend to maximise their profits from the company, it is assumed that the firm will want to maximise its profits. However, when pricing according to MR=MC firms may find they are loss-making.

Keynesian economists believe that firms will try to maximise their long-run rather than short-run profits. This is based on firms using cost-plus pricing where firms calculate the average cost and add a mark-up. Firms will adjust price and output in response to changes in market conditions. However, rapid price changes may affect a firm's position in the market. Consumers dislike rapid price changes, and may see price reductions as signs of a firm's desperation and distress. So rather than adjusting prices rapidly they will continue to charge the current price and may make a loss in the short term but will adjust the price to the profit maximising point in the long term.

Like shareholders, managers will also seek to maximise their utility. Managers are often paid a salary that is linked to the amount of sales they achieve. So to maximise their own utility they will seek to maximise sales so they achieve a higher salary. Sales maximisation is where the business makes the maximum sales possible while still breaking even. This occurs where Average Revenue = Average Cost (AR=AC).

Similarly, some managers will want to maximise their utility by making as much revenue as possible. Revenue maximisation is where the business makes the maximum revenue and occurs where Marginal Revenue = 0 (zero).

Managers may be motivated by high salaries, the number of people under their control and the availability of fringe benefits. They may, therefore, pursue policies other than profit maximisation. However, if they ignore profit shareholders can revolt, and may vote out the managers. So often managers will profit satisfice where they satisfy the demands of shareholders. Once those demands have been met, managers would be free to maximise their own rewards from the company – they will do just enough to satisfy the shareholders and avoid being dismissed. This means they are likely to give an outcome somewhere between profit maximisation and sales maximisation.

b Students are required to show diagrammatically the positions of profit, revenue and sales maximisation. The monopoly diagram below illustrates the three positions. Students are required to identify the condition for each; for example, MR=MC, MR=0 and AR=AC.

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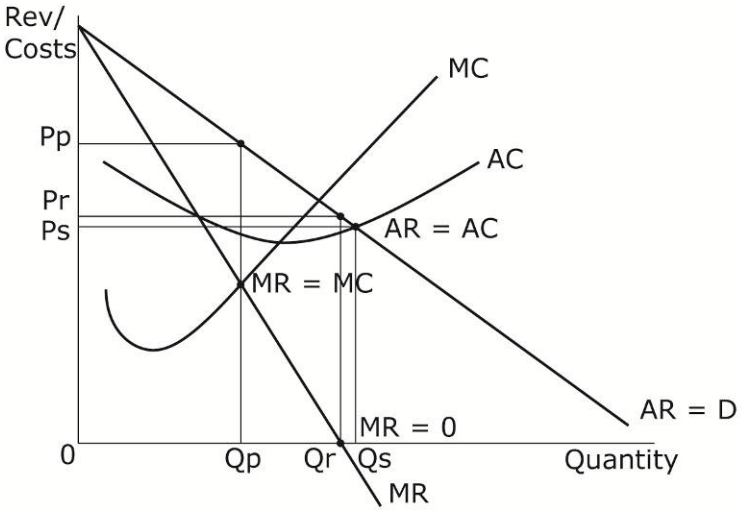

Profit maximisation- where MR = MC, this gives you the price Pp and quantity Qp.
Revenue maximisation- where MR = 0, this gives you the price Pr and quantity Qr.
Sales maximisation- where AR = AC, this gives you the price Ps and quantity Qs.

3.3 Revenues, costs and profits

This section will support students in exploring theories of the firm. Students are required to understand the relationships between total, average and marginal revenue. They should understand how PED relates to revenues. Similarly students will need to calculate and understand the relationships between different costs. An appreciation of the short and long run is essential here. Economies and diseconomies of scale should be covered. When looking at profit, students should explore supernormal and normal profit, and understand the short- and long-run shut-down points.

3.3.1 Revenue

a Students are required to know the formulae for each of the following:

Total revenue = price x quantity

Average revenue = total revenue ÷ quantity

Marginal revenue = change in revenue ÷ change in quantity

Students will need to understand the relationship between the revenues. It would be useful for them to see the relationships numerically and diagrammatically. Students could also consider what happens if a business cannot adjust the price and the relationship between the different revenues. This will support the study of perfect competition.

b Students should consider PED along a demand/average revenue curve and how this relates to total revenue. Students might find it useful to show the relationship diagrammatically and should remember that:

- when demand is elastic, increasing price will reduce total revenue and decreasing price will increase total revenue
- when demand is inelastic, increasing price will increase total revenue and decreasing price will decrease total revenue.

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3.3.2 Costs

a Students are required to know the formulae for each of the following:

Total cost = total fixed cost + total variable cost

Total variable costs = variable cost x quantity

Average (total) cost = total cost ÷ quantity

Average fixed cost = total fixed cost ÷ quantity

Average variable cost = total variable cost ÷ quantity

Marginal cost = change in cost ÷ change in quantity

Students should understand the relationship between the different costs. It would be useful for them to see the relationships numerically and diagrammatically. You could provide students with price and quantity data and ask them to calculate the revenue curves. Students could construct graphs based on the information provided.

b Students should understand that, in the short run, some factors of production are fixed. From this, they need to understand the assumption of diminishing marginal productivity. Cost curves are needed here.

c Students should also appreciate the relationship between short-run and long-run average cost curves.

3.3.3 Economies and diseconomies of scale

a Students are required to understand types of economies and diseconomies of scale – for example, financial, technical, managerial, marketing, purchasing and risk-bearing – and be able to explain these using examples. Students should be able to understand these as a long-run concept.

b An understanding of the minimum efficient scale is also required. Students should draw long-run average cost curves to show economies and diseconomies of scale as well as being able to identify the minimum efficient scale.

c Students should consider the distinction between internal and external economies of scale. Students could consider examples of where businesses benefit from economies of scale; for example, explaining the possible external economies of scale AstraZeneca would benefit from in its move to Cambridge.

3.3.4 Normal profits, supernormal profits and losses

a Profit maximisation occurs where MR=MC.

b Students need to know what is meant by normal profits. Fundamental here is the idea of opportunity costs. It is useful to explain that this forms part of the costs. Students should also make the distinction between normal and supernormal profits. Being able to identify profits and losses will be useful when considering market structures in 3.4.

c The short-run shut-down point occurs when average variable costs equal average revenue (AVC=AR). If AR>AVC then each additional unit sold will reduce the size of any losses and go towards covering fixed costs. The firm will be better off continuing to operate as they will be reducing the size of their losses. Firms will shut down when AVC>AR because every additional unit sold will add to losses.

The long-run shut-down point occurs when average (total) costs equal average revenue (ATC=AR). If AR>ATC then each additional unit sold will add to profits. The firm will be better off continuing to operate. Firms will shut down when ATC>AR because every additional unit sold will add to losses.

In this diagram the firm will profit maximise where MR=MC and the price charged is P and quantity Q. In the short run they will continue to operate as AR>AVC. In the long run ATC>AR so this firm will shut down.

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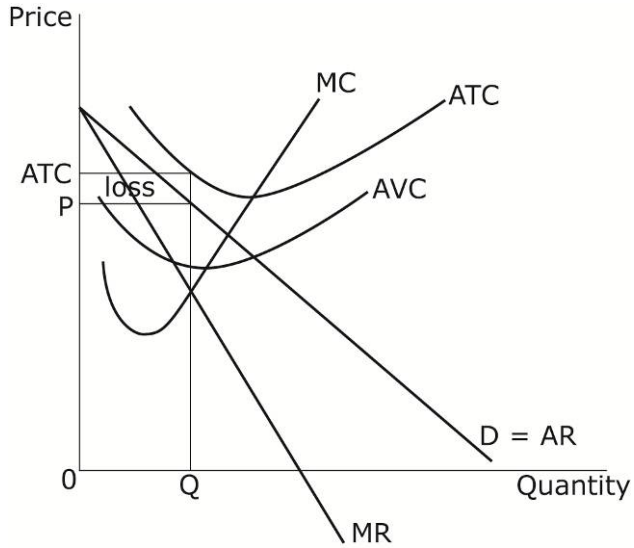
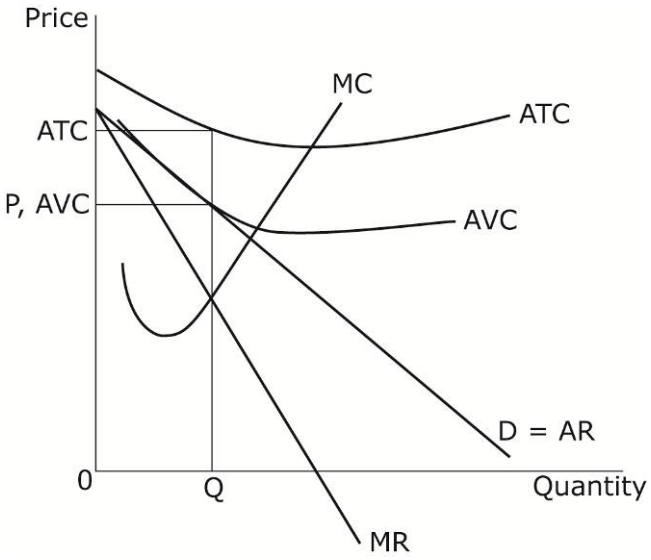


When profit maximising the price charged is P and quantity Q. In the short run AR=AVC, so the firm is at the shut-down point. In the long run ATC>AR so this firm will shut down.



3.4 Market structures

This topic was introduced in 3.3. Students will consider efficiency and the following market structures: perfect competition, monopoly, monopolistic competition and oligopoly. Students will also explore monopsonists and contestability. It is useful to look at real world examples to support understanding of market structures.

3.4.1 Efficiency

a Students need to understand that allocative efficiency is where price equals marginal costs.

b Productive efficiency is where average costs are at their lowest point.

c Allocative and productive efficiencies are static in the short term. Dynamic efficiency looks at how, over the long term, new technology and productive techniques can increase the productive potential of firms.

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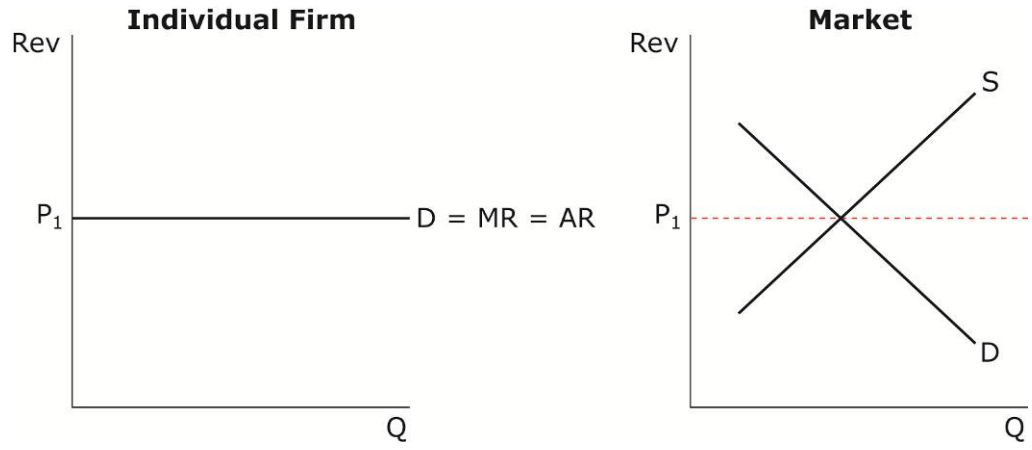
d X-inefficiency is where firms find themselves with average costs that are higher than they could be. Students should be able to identify causes of such efficiencies.

e Students should consider the efficiencies and inefficiencies in the different market structures they explore in this section.

3.4.2 Perfect competition

a Perfect competition exists in a market where there is a high degree of competition. A perfectly competitive market must possess four characteristics: there are many buyers and sellers, none of whom is large enough to influence price; there are no barriers to entry and exit from the industry; buyers and sellers possess perfect knowledge of prices; the products are homogenous. There are few industries that meet all of these characteristics – an example is the foreign exchange market.

b (b and c) Perfect competition has a large number of suppliers in the market. A firm can expand or reduce output without influencing price. The price is determined by the market because the individual firm is too small to influence price and is a price-taker. Students need to explain and show diagrammatically the relationship between the market and the firm. The horizontal demand curve is also the firm's average and marginal revenue curves. If a firm sells all its output at the market price, then this price must be the average price or revenue. In addition, each extra item sold will receive the same price for each additional unit and, therefore, marginal revenue will be the same as average revenue. The perfectly competitive firm's demand curve:



In a perfectly competitive market, the supply curve for a firm is the marginal cost curve above the average variable cost in the short run, and the average total cost in the long run. The marginal cost of production – the change in total cost resulting from the sale of one more unit – represents the additional cost of supplying one more unit of output.

In perfect competition, we assume firms are profit maximisers and produce where marginal cost is equal to marginal revenue (MC=MR). Perfectly competitive firms can make supernormal profits in the short run. In this diagram the horizontal demand/average revenue curve is shown to be above the average total cost at the point where MC=MR (point A). At Q1 the firm charges P1, but faces only average costs of P2. The firm will make supernormal profits shown by the shaded area (P1P2AB).

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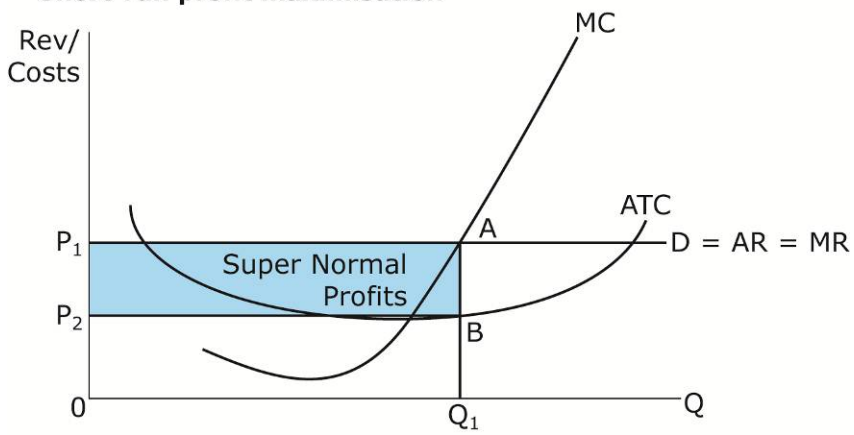
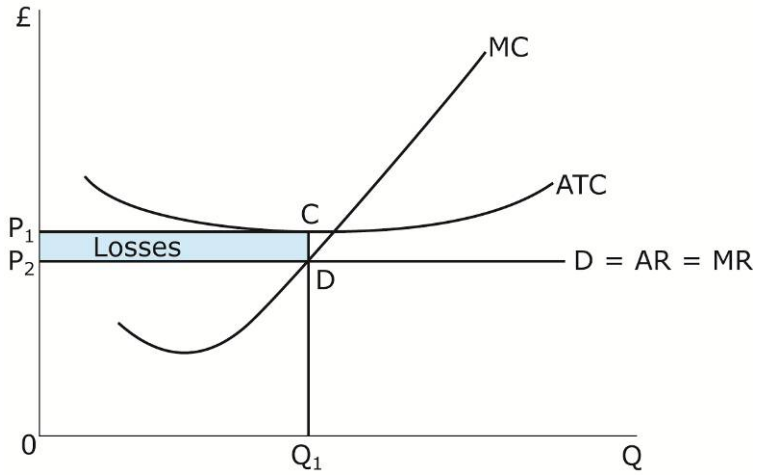
Short-run profit maximisation



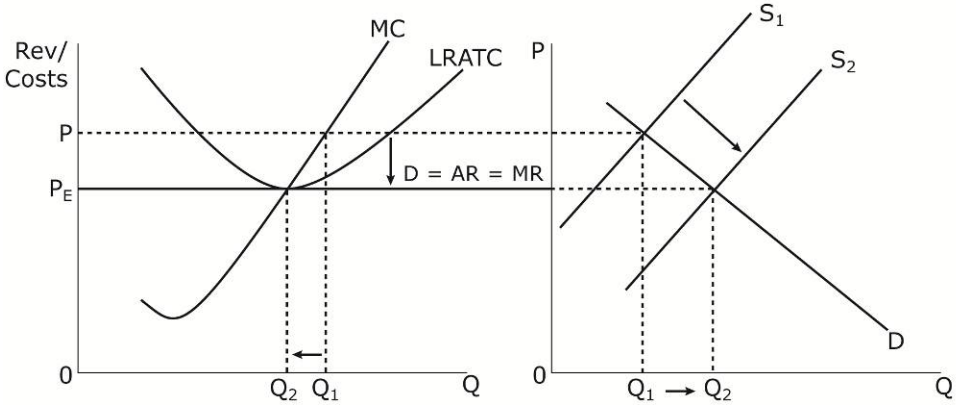
The diagram below shows short-run firm-making losses. The firm is profit maximising where MR=MC. The price charged is P2 and average costs P1. This brings about losses equal to P1P2CD.

Short-run firm making losses



If a firm makes supernormal profits in the short run, other firms would have the incentive to enter the market (and could do so owing to lack of barriers to entry in perfect competition). The entry of new firms stimulates an increase in supply from S1 to S2, with the demand curve for the firm shifting down and the price shifting down to PE. The firm is now making normal (not supernormal) profit.

Long-run equilibrium position of a firm in an industry facing short-term super normal profits



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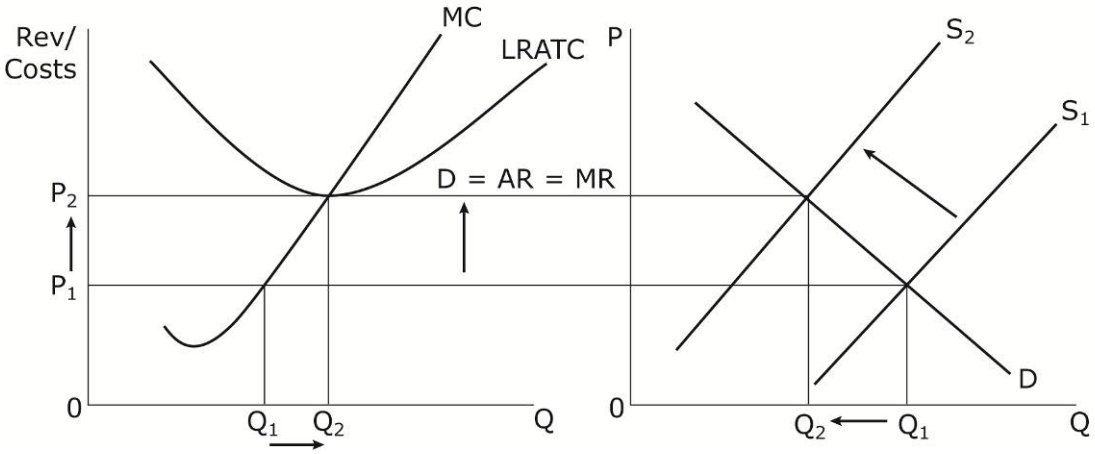
If a firm is making losses in the long run, some firms would leave the industry as there are no barriers to exit. As a result, total supply falls from S1 to S2. At S1, the firm makes a loss. At S2, the demand shifts upwards as firms leave the markets leading to normal profits.

Long-run equilibrium position of a firm in an industry facing short-term losses

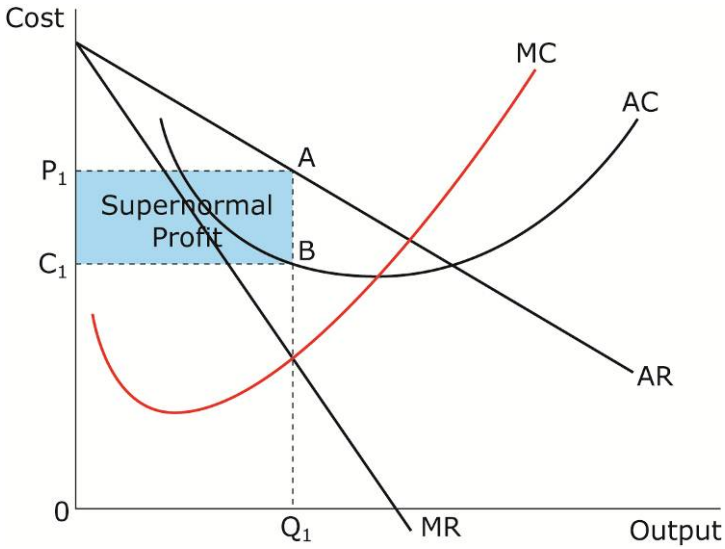


In the long run, competition ensures that equilibrium occurs where firms make neither supernormal profits nor losses. Average costs will equal average revenue and the firms make normal profit.

3.4.3 Monopolistic competition

a The assumptions for monopolistic competition are that: there are a large number of small firms; there are low barriers to entry and exit; and firms produce similar but differentiated products.

b (b and c) Product differentiation means there is a downward sloping curve because firms have some market power. They can change price and will not lose all customers. The firm will profit maximise and produce where MC=MR so will produce at an output level of Q1 and charge price P1.



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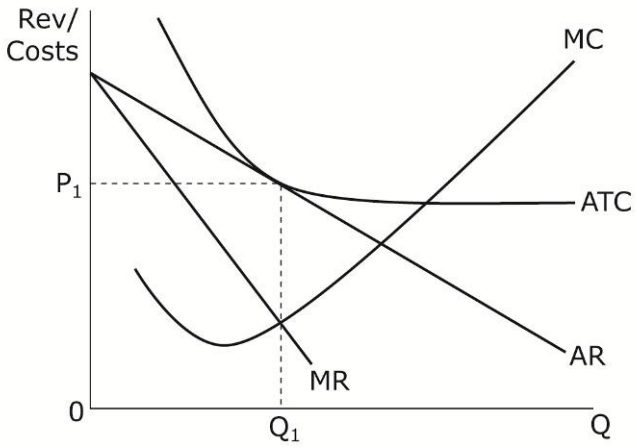
In the long run, supernormal profits will be eroded because new firms will enter the market owing to lack of barriers to entry. The entry of new firms will increase supply, shifting the average revenue curve downwards to the point where AR=AC, as in the diagram. If the firm was making a loss, it would leave the industry, reducing supply and shifting the AR curve upwards again to a point where AR=AC. Therefore, in the long run, a monopolistically competitive firm can make neither supernormal profits nor losses.

The monopolistically competitive firm in long-run equilibrium



3.4.4 Oligopoly

a Firms operating in oligopolistic markets tend to keep prices stable. The actions of one firm will impact on other firms in the industry – they are interdependent.

b Students should be able to calculate concentration ratios and be able to identify the likely market structure and the significance.

c Oligopoly firms have an incentive to work together through collusive agreements.

d Students should consider why firms might collude tacitly or overtly, or engage in non-price competition.

e Game theory can be used to predict how firms might behave. It is used to explain why firms may collude and why collusive agreements may break down. The prisoner's dilemma can explain the way that game theory can be used by firms.

f Students should explore types of price competition. If one firm increases its price, competitors will not follow as they can attract the firm's customers by having a lower price. If a firm lowered their prices, then other firms would follow suit, resulting in a price war with lower prices – no firm would gain from this. Other types of price competition should be considered; for example, predatory pricing and limit pricing.

g Non-price competition can take the form of advertising, issuing of loyalty cards, branding, packaging and other measures to reduce the closeness of substitutes.

3.4.5 Monopoly

a A monopoly is assumed to: be the only firm in the industry; have high barriers to entry, preventing new firms from entering the market; and be a short-run profit maximiser.

b (b and c) A monopoly firm is the same as the industry as it is the only firm in the market. Monopolies have a downward sloping demand curve and can set the level of price or output.

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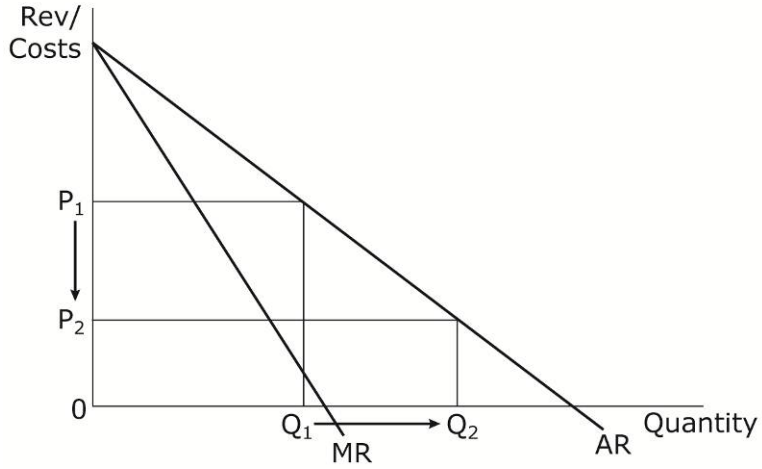
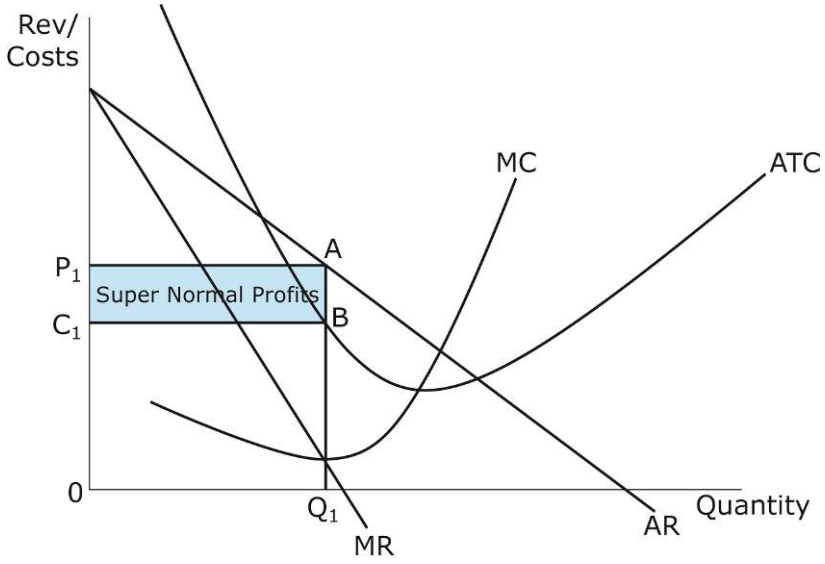
The monopolist's average revenue and marginal revenue curves



A monopolist profit maximises where MC=MR. The diagram shows the equilibrium profit maximising level of output at Q1, with a price of P1. Supernormal profits are equal to P1C1BA.

Profit-maximising monopolist



d Third degree price discrimination is when a business charges different groups of customer different prices for the same product. For example, discounted rail fares for students. For price discrimination to be possible 3 conditions apply:

- market power – price discrimination can only take place when the firm has the ability to vary the price (such as a monopoly)
- information – it must be possible to distinguish between different customers' willingness to pay
- limited ability to resell – consumers cannot resell the product

The assumption is that there are two markets – one with inelastic demand and the other with elastic demand. The 'total firm' diagram on page 59 shows that a profit maximising firm will have price Pt and earn supernormal profit equal to the area old profit. Where MR=MC in the inelastic demand market this is profit maximising and gives price Pa and profit marked by the blue shaded area. The elastic demand market sees price Pb and profit marked by the blue area.

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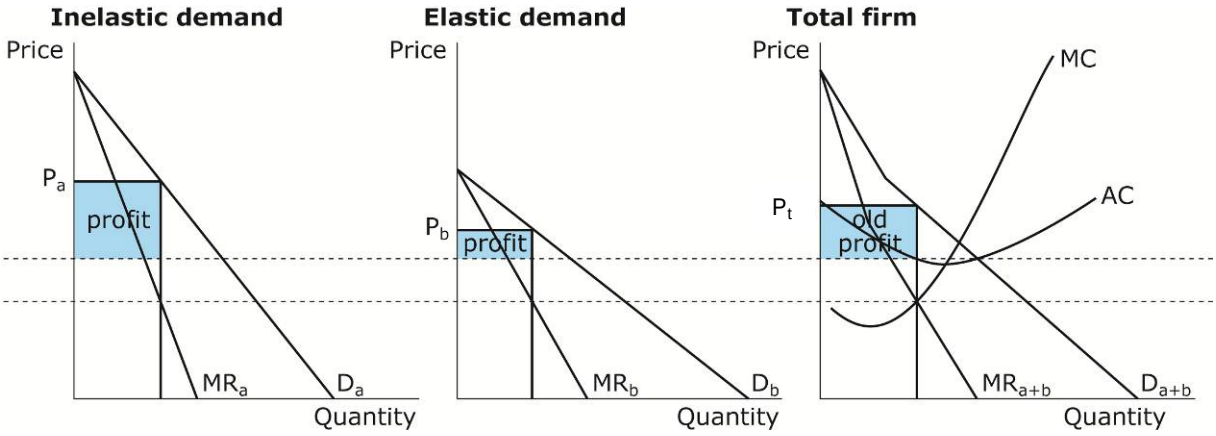
Combining these two profits should generate more profit for the firm than profit maximising without price discriminating.



e Students should explore the costs and benefits of monopoly to firms, consumers, employees and suppliers. For example:

Advantages of monopoly power	**Disadvantages of monopoly power**
Abnormal profit means: • finance for investment to maintain competitive edge • reserves to overcome short-term difficulties and provide funds for research and development.	Abnormal profit means: • less incentive to be efficient and to develop new products • efforts are directed to protect market dominance.
Monopoly power means powers to match global companies.	Monopoly power means higher prices and lower output for domestic consumers.
Cross-subsidisation may lead to an increased range of goods or services available to the consumer.	Monopolies may waste resources by undertaking cross-subsidisation, using profits from one sector to finance losses in another sector.
Price discrimination may raise total revenue to a point that allows survival of a product or service. It is often said that economy-class flights are funded by those flying business and first class.	Monopolists may undertake price discrimination to raise producer surplus and reduce consumer surplus.
	Monopolists do not produce at the most efficient point of output (i.e. at the lowest point of the average cost curve).

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Monopolists can take advantage of economies of scale, which means that average costs may still be lower than the most efficient average of a small competitive firm.	There are few permanent monopolies. Supernormal profits act as an incentive to break down the monopoly through a process of creative destruction, i.e. undermining the monopoly through product development and innovation. Monopolists can be complacent and develop inefficiencies.
Monopolists avoid undesirable duplication of services and therefore a misallocation of resources.	Monopolies lead to a misallocation of resources by setting prices above marginal cost, so that price is above the opportunity cost of providing the good.

f In the UK, water supply and the railway track are all monopolies. These industries are often referred to as natural monopolies because economies of scale are so large, new entrants would find it impossible to match the costs and prices of the established firm. Some monopolies, such as the water companies, have considerable monopoly power because there are no good substitutes for their product. A local monopoly describes the only supplier in an area; for example, the only village shop or petrol station. A monopoly maintains its position as the sole supplier because of barriers to entry, including: legal barriers such as patents; marketing barriers such as advertising; restrictive practices; and access to specific technology or raw materials.

3.4.6 Monopsony

a A monopsony exists when there is one buyer in the market. There are few pure monopsonists; for example, the government dominates the market for hiring teachers. Monopsonists are profit maximisers – they aim to minimise costs by paying suppliers the lowest possible price. Monopsonists will pay lower prices to suppliers than if the market was competitive but suppliers will also supply less to the market.

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b Students should consider costs and benefits of a monopsony to firms, consumers, employees and suppliers. For example:

	Benefits	Costs
Firms	Lower costs – cost minimisation supports firms in making more profits.	The relationship with the supplier may worsen, the monopsonist may drive their supplier out of business.
Consumers	Lower prices – the monopsonist pays the minimum it can.	The supplier may have to cut corners or lower quality to lower its costs to remain profitable.
Employees	In minimising costs of raw materials it leaves more funds to pay its staff.	May question the ethics of the way their firm is acting.
Suppliers	When the supplier has market power as a monopolist it can counteract the monopsonist.	The buyer minimises costs leading to a reduced price paid to the supplier. The monopsonist may exploit its market power by paying less or later. Suppliers may be driven out of the market due to lower profitability.

3.4.7 Contestability

a Contestable markets:

- must have no barriers to entry or exit
- have no sunk costs – a firm's start-up costs that they cannot recover if they exit the market
- new firms must have no competitive disadvantage compared to the incumbent
- must have access to the same technology.

Incumbents cannot set a price above AC – if they do and earn supernormal profits others will enter and compete the profits away.

b If businesses make supernormal profits:

- this would make them vulnerable to a 'hit and run' entry by a new firm
- they would come into the market, take some profits and then exit again.

To avoid this, the incumbent firm may charge where P=AC where there are no supernormal profits and no incentive for entry to the market. Alternatively the incumbent firm(s) may charge a limit price, i.e. one below the profit maximising price and low enough to deter new entrants.

c Barriers to entry are obstacles that limit a firm's ability to enter, set up or extend into new markets. Barriers to exit are factors that prevent firms leaving a market or, when a firm is making a loss, make it more unprofitable to leave. Examples of this include sunk costs – costs that are irretrievable – such as advertising.

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Barriers include:

- illegal anti-competitive practices by incumbents, including predatory and limit pricing
- the nature of the business causing barriers to exist, such as economies of scale
- legally imposed barriers –patents, state-owned franchises such as train operating companies and legislation that allows firms to operate such as postal services and 4G licenses.

d Sunk costs are costs that are irretrievable; for example, advertising costs. When sunk costs are high in a market it will make entry to and exist from that market less attractive and therefore make the market less contestable.

3.5 Labour market

This topic gives students the opportunity to explore a specific type of market in detail by focusing on the labour market. It is important to emphasise that when looking at the labour market, students are exploring specific markets: for example, the labour market for Maths teachers or unskilled agricultural workers. Students should explore labour demand and labour supply, appreciating factors influencing each of these. Students should also consider occupational and geographical immobility and how they affect the labour market, and policies that can be used to reduce immobility. Minimum and maximum wages should also be explored.

3.5.1 Demand for labour

a (a and b) In a particular labour market, the supply of labour comes from people in households and the demand for labour comes from businesses. The demand for labour is known as a derived demand, which means the demand for labour is dependent on demand for the final goods and services that they produce. If there is a high demand for the final goods and services they produce businesses will demand more labour; for example, in times of economic boom. When demand for a final good falls the demand for labour will fall.

Demand for labour also increases when workers become more productive; for example, because they have better skills. Firms can choose to use capital or labour so if capital becomes more expensive then firms will demand more labour.

3.5.2 Supply of labour

a The supply of labour is dependent on a number of factors, including: changes in migration, income tax, benefits, presence of trade unions, social trends, and required skills and qualifications.

b Market failure can result from the inability of workers to easily move between jobs. There are a number of reasons for this:

- Geographical immobility refers to workers being unable to move to different places to seek and find work. This may be due to social reasons, such as not wanting to move away from family. It may also be due to the cost of travel or cost of accommodation.
- Occupational immobility refers to workers being unable to move between jobs as they lack the appropriate skills or training. As an economy shifts from having a manufacturing base to a service-sector base, many manufacturing workers find it difficult to transfer to jobs in the service sector as they lack the required skills.

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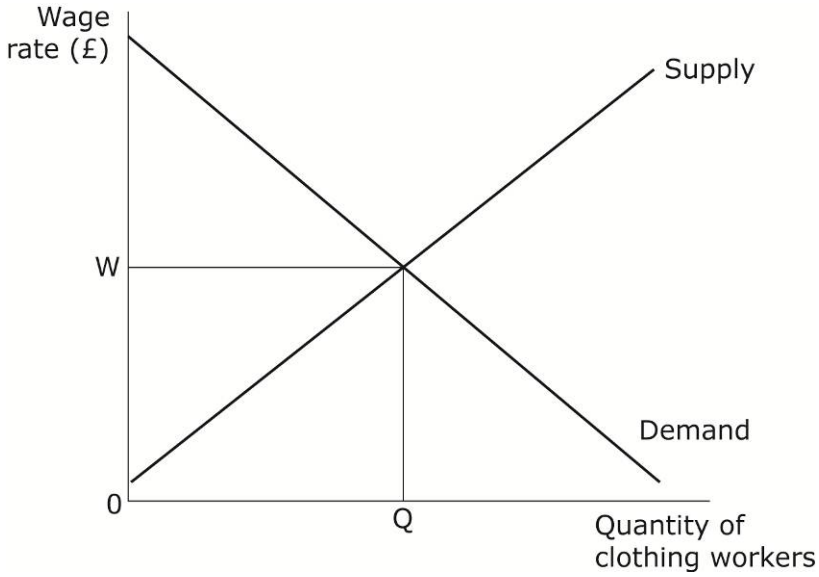
3.5.3 Wage determination in competitive and non-competitive markets

a The price of labour is the wage rate. If wages are too high, labour supply will be high but labour demand will be low – there is excess supply leading to unemployment. In a competitive market, workers will have to accept lower wages or go without a job, meaning the wage rate will tend to fall to the market clearing wage rate.

If wages are too low, labour demand will be high but supply will be low – there is excess demand and therefore there will be a labour shortage. Workers will not work if they are not paid enough to do so. Firms will have to pay workers more to convince them to work, and so the wage rate will rise towards the market clearing wage.

Students are required to draw, annotate and interpret labour market diagrams.



Students should also consider the importance of the participation rate in the labour force, and recognise the concepts of unemployment and under-employment.

b Students should have an understanding of current labour market issues. These might include: skills shortages; young people in the labour market – such as problems accessing the labour market and youth unemployment; changes to retirement ages; schooling ages; and temporary, flexible and zero-hour contracts/working.

c The minimum wage is the minimum firms are legally allowed to pay their workers. Students should consider the impact of an introduction or change in minimum wages.

The minimum wage, set at W1, will result in a wage above the market equilibrium wage, We. The higher wage will result in an extension of the supply of labour to Q but firms will contract demand to Q1. This leads to excess supply and Q-Q1 will be unemployed.

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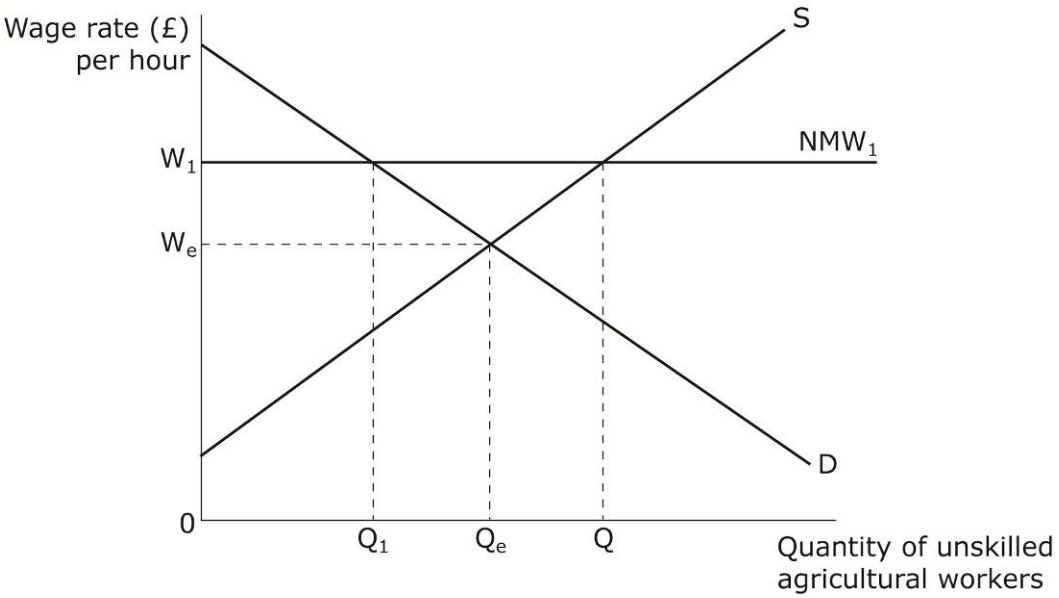

Students should consider the impact (benefits and drawbacks) of the introduction or increase in both a minimum and maximum wage.

Students should also explore how, through public sector wage setting, the government can impact the labour market, as well as the policies to tackle labour market immobility. These include training programmes and relocation subsidies.

d Elasticity of demand for labour refers to how responsive the demand for labour will be to changes in wages. If demand for labour is elastic, businesses cut back aggressively on employment if wage rates increase and will expand rapidly when labour becomes cheaper relative to other factor inputs. When the elasticity of demand for labour is inelastic the response to changes in wages will be smaller.

The wage elasticity of demand for labour depends on a number of factors: the proportion of labour costs in the total costs of a business, the ease and cost of factor substitution, the price elasticity of demand for the final output produced by a business and the time period under consideration.

The elasticity of labour supply to an occupation measures the responsiveness of labour supply to a change in the wage rate. In low-skilled occupations, labour supply is elastic because a pool of labour is available to take the job. Where jobs require specific skills, training or qualifications, the labour supply will be more inelastic because it is hard to expand the workforce in a short period of time when demand for workers has increased.

3.6 Government intervention

Throughout this theme, areas have been identified where there is a role for the government to bring about better outcomes; for example, in limiting mergers that would create firms with market power, limiting exploitation by monopolies and promoting competition, and protecting suppliers against monopsonists. In this topic students will explore the impact and limits of government intervention.

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3.6.1 Government intervention

a (a to d) Students should consider competition authorities and the actions the government takes to control mergers and monopolies, promote competition and protect suppliers and employees. In each case it is important to consider why the action is needed. It could be useful to look at the European Competition Commission and the Competition and Markets Authority (CMA) in the UK (which took over the powers of the Competition Commission and certain functions of the OFT in April 2014). Another example is the Antitrust Commission in the US.

3.6.2 The impact of government intervention

a When exploring government intervention it is important to consider what the government aims to achieve in terms of: prices, profit, efficiency, quality and choice.

b Government intervention may fail to bring about the social optimal position; for example, through regulatory capture. It is also important to consider how asymmetric information could make it difficult for the authorities to investigate and discover anti-competitive practices.

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Theme 4: A global perspective

This section provides ideas and suggestions for teaching approaches for Theme 4 and is not intended to be prescriptive. The specification must be referred to as the authoritative source of information.

4.1 International economics

This section introduces economics in a global context by considering globalisation: its causes and consequences; the basis of free trade; protectionism; the balance of payments; exchange rates; and international competitiveness.

4.1.1 Globalisation

a According to Peter Jay, globalisation is defined as: 'The ability to produce any goods (or service) anywhere in the world, using raw materials, components, capital and technology from anywhere, sell the resulting output anywhere, and place the profits anywhere.'

Globalisation refers to the increasing international interdependence of economic agents (producers, consumers, governments, entrepreneurs). Key phrases include global branding and global sourcing, although it is not just about the activity of global (transnational) companies (TNCs). Globalisation is characterised by increasing foreign ownership of companies, increases in trade in both goods and services, de-industrialisation in developed countries and increasing global media presence.

b Factors contributing to globalisation in the last 50 years include:

- improvements in transport infrastructure and operations
- improvements in communications technology and IT (especially the internet, allowing a global media presence)
- trade liberalisation resulting from agreements reached by the World Trade Organisation (WTO)
- increasing number and influence of global (transnational) companies
- the end of the Cold War, which led to the opening up of formerly closed economies in communist countries and a subsequent increase in global labour supply
- the development of international financial markets.

c The impacts of globalisation and global companies on individual countries, governments, producers and consumers, workers and the environment include:

- increasing living standards resulting from increased specialisation and trade (through the law of comparative advantage – see section 4.2.1)
- increased interdependence of economies
- de-industrialisation in developed countries, combined with a global search for new sources of energy (especially oil/gas reserves) and the growth of economies such as China and India has left many 'Western' countries concerned about their future and their power in the global economy
- increase in the number of 'footloose' companies which can cause unemployment as they move from country to country; global sourcing should be considered in the light of activity by TNCs
- greater consumer choice
- lower prices, through specialisation according to comparative advantage
- workers may be exploited by large global (transnational) companies

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- increasing environmental destruction and other negative externalities – students should be aware of environmental problems caused by globalisation; for example, rising greenhouse gases from increased transportation of goods associated with the increase in international trade.

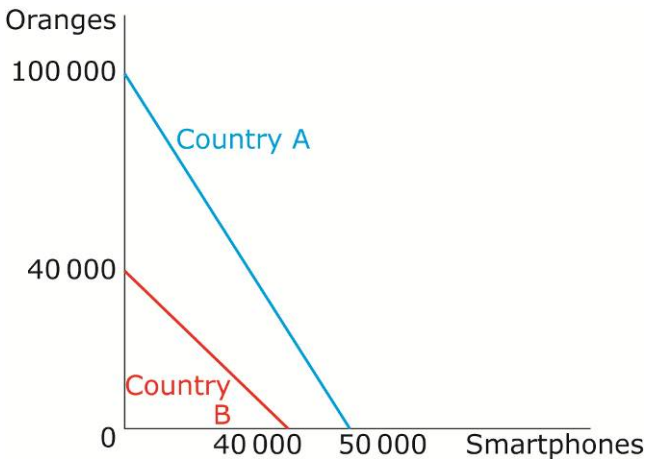
Students should also be introduced to the idea that globalisation is not a new phenomenon and that there has been a continual process of globalisation since the time of the first humans.

4.1.2 Specialisation and trade

The primary reason for trade is that countries are not able to produce everything they want in today's society. This is associated with economic development and increases in income. Trade allows countries to specialise in producing the goods/ services that can be produced efficiently. Goods are imported because of their availability, price and product differentiation.

a Students are required to use numerical and diagrammatic examples to illustrate absolute and comparative advantage. Assume a world with two countries (A and B) and two products (oranges and smartphones). Country A has an absolute advantage because it can produce more of both goods.

To produce one smartphone, Country A must give up production of 2 oranges, whereas Country B must give up production of 1 orange. Because Country B gives up fewer oranges to make more smartphones, it has a comparative advantage in smartphones (similarly Country A for oranges).



Country A's PPF is shown in blue. Country B's PPF is shown in red. The opportunity cost of producing a smartphone in Country A is 2 oranges; the opportunity cost of producing a smartphone in Country B is 1 orange. The opportunity cost of producing an orange in Country A is 0.5 of a smartphone whereas the opportunity cost of producing an orange in Country B is 1 smartphone Country A should specialise in producing oranges. Country B should specialise in producing smartphones.

The theory of comparative advantage assumes: constant costs of production (ignoring economies of scale); that transport cost are zero; there is perfect knowledge; and that factors of production can easily be switched from producing one good to producing another. Limitations include that the external costs of production (such as environmental degradation) are ignored.

b The advantages of specialisation and trade include:

- lower prices and more choice for consumers
- larger markets and economies of scale for firms

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- higher economic growth and living standards (based on the law of comparative advantage).

Disadvantages of specialisation and trade include:

- a deficit on the trade in goods and services balance could arise if a country's goods and services are uncompetitive
- danger of dumping by foreign firms, i.e. selling at below average cost
- increased unemployment resulting from the above
- increased economic integration might result in increased exposure to external shocks
- unbalanced development – international specialisation based on free trade means that only those industries in which the country has a comparative advantage will be developed while others remain undeveloped; in other words there will be a sectoral imbalance which may restrict the overall rate of economic growth
- global monopolies as global (transnational) companies become larger
- developing and emerging economies may face particular problems; for example, infant industries may be unable to compete and go out of business; the monopsony power of global companies may mean that low prices are paid for commodities from developing countries.

4.1.3 Patterns of trade

a The G7 share of world trade in manufacturing has fallen significantly over the past century. In global terms, trade flows with emerging economies have increased significantly. Trade within trading blocs, such as the EU, has also significantly increased (trade creation), but at the expense of trade with more traditional trading partners, such as between the UK and the Commonwealth countries (trade diversion). Students should be encouraged to look at how patterns of trade have changed and the reasons for these changing patterns, particularly with reference to the growing importance of trading blocs and the growth of emerging economies.

4.1.4 Terms of trade

The relative prices of imports and exports may have an important impact on competitiveness and on a country's living standards. These are captured in a country's terms of trade.

a Students are required to calculate terms of trade:

$$\text{Terms of trade} = \frac{\text{Index of export prices}}{\text{Index of import prices}} \times 100$$

b Factors influencing a country's terms of trade include: relative inflation rates, relative productivity rates and changes in exchange rates.

c Changes in a country's terms of trade impact on living standards and on the competitiveness of a country's goods and services, with implications for the balance of payments on current account, output and employment. For example, an improvement (increase in) a country's terms of trade implies an increase in its living standards because less has to be exported to buy a given quantity of imports. However, it could mean that the country's goods and services are less competitive and so result in a deterioration in the current account, lower output and higher unemployment.

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4.1.5 Trading blocs and the World Trade Organisation (WTO)

a Students should consider the characteristics of the various types of trading bloc and understand the idea of trade creation and trade diversion (which links to the conflict between blocs and the WTO).

- Free trade areas – these are blocs in which groups of countries agree to abolish trade restrictions between themselves but maintain their own restrictions with other countries.
- Customs unions – these have free trade internally and a common set of protectionist measures. Examples include the EU, the North American Free Trade Agreement (NAFTA) and the Association of Southeast Asian Nations (ASEAN).
- Common markets – these have the same characteristics as customs unions but also allow the free movement of factors of production.
- Monetary unions – these are customs unions which adopt a single currency.

b The costs of regional trade agreements, which are monetary unions, include: transition costs (costs of changing price lists, slot machines, etc.), loss of independent monetary policy and loss of exchange rate flexibility. Benefits include: elimination of transaction costs, price transparency, reduction in exchange rate uncertainty and increased attractiveness for foreign direct investment (FDI).

c The WTO promotes free trade between member countries through a series of trade negotiations. It is also responsible for resolving trade disputes between member countries.

d Trade within regional trade agreements has also significantly increased (trade creation) as a result of their emphasis on free trade. However, this is at the expense of trade with non-members (trade diversion) who may be subject to trade barriers. This is in conflict with the primary aim of the WTO.

4.1.6 Restrictions on free trade

a Students should consider the reasons for, and types of, restrictions on free trade as well as their impact on an economy. A country may restrict trade to:

- protect infant industries and sunset industries
- protect employment
- retain self-sufficiency
- correct imbalances on the current account of the balance of payments
- retaliate against restrictions imposed by another country
- prevent dumping
- reduce competition from countries with cheap labour and poor labour/environmental laws
- protect strategic industries, such as defence, essential foodstuffs and energy.

Students should be aware of current examples of protectionist measures and consequent retaliation. Able students could be introduced to the ideas of David Ricardo regarding the benefits of free trade versus protectionism, as well as criticisms of these ideas from economists such as Ha-Joon Chang.

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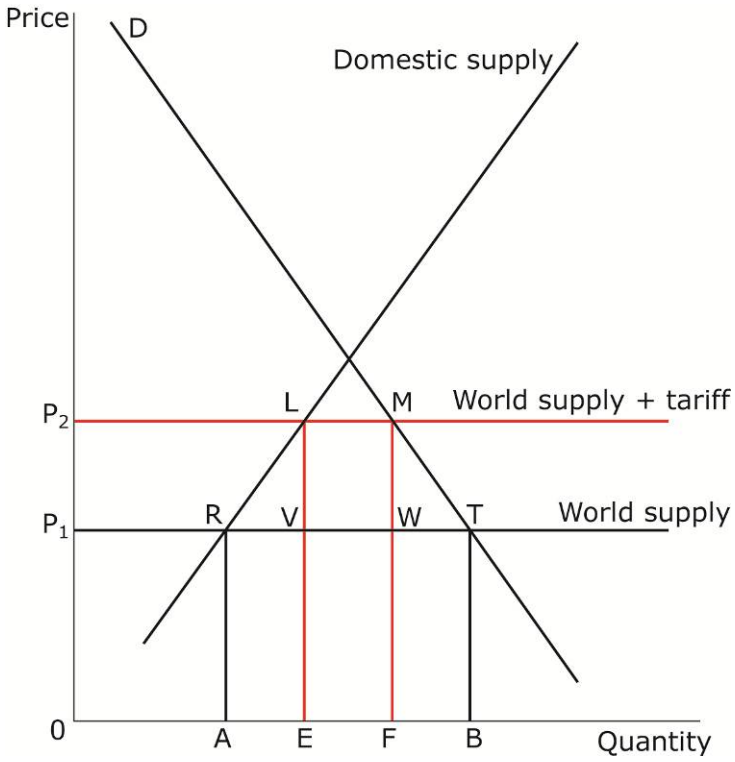
b Students should explore types of trade barrier. Tariffs are taxes on imported goods. They are also known as import or customs duties. Taxes raise prices to consumers with the aim of restricting imports. The following diagram illustrates the impact of a tariff:



- Before tariff – domestic suppliers supply 0A, total demand is 0B, so imports are AB.
- After tariff – domestic suppliers supply 0E, total demand is 0F, so imports are EF.
- Tariff revenue raised by government is LMWV.
- Additional domestic producer surplus is P_1P_2LR.
- The deadweight welfare loss areas are RLV and WMT.

Quotas are a physical limit on the quantity of imports. They have a similar effect to tariffs but no tax revenue is raised and shortages are created.

Subsidies to domestic producers are grants given to domestic producers to enable them to lower production costs, therefore lowering prices, which should make the country's products more competitive internationally. Unlike tariffs and quotas, subsidies incur a cost to the public finances.

Non-tariff barriers are protectionist measures which might include: product specifications, health and safety regulations, environmental regulations and labelling of products.

c Students should consider the impact of protectionist policies on consumers, producers, governments, living standards and equality.

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4.1.7 Balance of payments

a The balance of payments is a record of all a country's financial dealings with the rest of the world over the course of a year. It has four parts: the current account, the capital account, financial account and the international investment position. Students should have a clear understanding of these elements and examine factors which cause current account imbalances and measures which can reduce such imbalances.

The current account comprises the following:

- Balance of trade – this refers to the difference between the value of goods and services exported and the value of goods and services imported. Exports appear as a positive entry into the balance of payments because they bring money into the country. Imports appear as a negative entry into the balance of payments because money leaves the country. The balance of trade itself comprises two elements: the trade in goods balance and the trade in services balance.
- Income – this comprises income earned by domestic citizens who own assets overseas minus income earned by foreign citizens who own assets in this country. It includes profits, dividends on investments abroad and interest.
- Current transfers – these are usually money transfers between central governments (who lend and borrow money from each other) or grants, such as those that the UK receives as part of the CAP from the EU.

If a country has a current account deficit, the value of money leaving the country exceeds the value of money entering the country. If a country has a current account surplus, then the value of money entering the country exceeds the value of money leaving the country.

The capital account refers to transactions in fixed assets and is relatively small.

The financial account comprises transactions associated with changes of ownership of the UK's foreign financial assets and liabilities. It includes the following:

- Direct investment – this relates to capital provided to or received from an enterprise, by an investor in another country.
- Portfolio investment – this relates to investments in equities and debt securities.
- Financial derivatives – these include any financial instrument the price of which is based upon the value of an underlying asset (typically another financial asset). Financial derivatives include options (on currencies, interest rates, commodities, indices), traded financial futures, warrants and currency and interest swaps.
- Reserve assets – these refer to those foreign financial assets that are available to, and controlled by, the monetary authorities such as the Bank of England for financing or regulating payments imbalances. Reserve assets comprise: monetary gold, Special Drawing Rights, reserve position in the IMF and foreign exchange held by the Bank.

Students should focus especially on flows of FDI between countries.

The international investment position is in the balance sheet of the stock of external assets and liabilities.

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b The balance of payments must always balance. If a country has a current account deficit, it must have a surplus on the other elements of the balance of payments. This is because it has to pay for everything it consumes and funds in some way – to fund a current account deficit, a country must be selling assets to foreign investors. It is debatable whether this is sustainable in the long run since, if people invest in a country, at some point they will require a return on their investment, and this will cause a deficit on the financial account.

In addition, because the data is never completely accurate, the accounts also incorporate a 'net errors and omissions' item, which makes sure that everything will balance.

Students should understand the components within the current account, and should be aware of which components record deficits or surpluses. Students should consider the size of deficits or surpluses on the current account in a global context, and examine the implications of large imbalances between countries.

Causes of current account deficits include:

- relatively low productivity
- relatively high value of the country's currency
- relatively high rate of inflation
- rapid economic growth resulting in increased imports
- non-price factors such as poor quality and design.

Current account surpluses may arise from the reverse of these points.

c Measures to correct a deficit on the current account include expenditure reducing, expenditure switching and supply-side policies; each of these should be evaluated, and students should be encouraged to reach their own conclusions as to the most appropriate measure. Students should consider the option of doing nothing, in light of theory on floating exchange rates.

Expenditure-reducing policies relate to measures designed to reduce aggregate demand, such as deflationary fiscal policy. As a result people spend less on imports. However, a side-effect of this is that spending on domestic goods also decreases, causing unemployment and a fall in the rate of economic growth.

Expenditure-switching policies involve the use of protectionist measures such as tariffs or quotas, or a devaluation of the currency under a fixed exchange rate regime. Such measures encourage people to buy domestic goods rather than imports. However, they may lead to retaliation, causing exports to also fall so that the current account deficit may not be corrected.

Supply-side policies, such as spending on education and training in order to improve the quality and therefore competitiveness of exports, aim to boost export demand. While they can incur an opportunity cost, they contribute positively to economic growth and can be anti-inflationary in the long run.

d Some argue that, since a country's balance of payments must always balance, any global imbalances are insignificant. However, the Global Financial Crisis of 2008 suggests that persistently large current account deficits may be unsustainable in the long run. Large and persistent deficits can be a problem because there is a need to finance the increasing expenditure on imports, usually through loans from abroad. In contrast, large and persistent surpluses can be a problem because resources are focused on producing to meet export demand rather than domestic demand, so consumer choice and resulting living standards could actually be low. Further, such imbalances may lead to large currency fluctuations which can have a destabilising impact of world trade.

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4.1.8 Exchange rates

Students should understand the different exchange rate systems, the factors influencing exchange rates and the impact of changes in exchange rates.

a Exchange rates are the price of one currency in terms of another. Under a system of floating exchange rates, demand and supply determine the rate at which one currency exchanges for another.

In a system of fixed exchange rates, the country's exchange rate is fixed in relation to, say the US dollar. It can only be changed by the central bank in agreement with other countries usually mediated through the IMF.

Managed exchange rates imply that the monetary authorities control the exchange rate through the buying and selling of the country's currency on the foreign exchange market and through changes in interest rates.

b (b and c) Appreciation and depreciation are the terms used under a system floating exchange rates to describe increases and decreases in the value of a country's currency in relation to other currencies. Revaluation and devaluation are the terms used under a system fixed exchange rates to describe increases and decreases in the value of a country's currency in relation to other currencies determined by the country's central bank.

Appreciation/revaluation means that the value of the pound, in terms of other currencies, has increased. For example, if the value changes from £1 = $1.50 to £1 = $1.70 then more dollars are required to buy £1. With an appreciation/revaluation, even though a good may still be priced at £10, it now costs Americans $17 instead of $15, therefore reducing demand for UK exports.

Depreciation/devaluation means that the value of the pound, in terms of other currencies, has decreased. For example, if the value changes from £1 = $1.50 to £1 = $1.40 then fewer dollars are required to buy £1. With a depreciation/devaluation, even though a good may still be priced at £10, it now costs Americans only $14 instead of $15, therefore increasing demand for UK exports.

d Essentially, the exchange rate will be determined by the supply of, and demand for, the currency. In turn, these will depend on factors such as:

- relative interest rates
- relative inflation rates (purchasing power parity theory)
- the current account of the balance of payments – UK exports create a demand for sterling whereas imports into the UK create a supply of sterling on the foreign exchange market; therefore, an increasing trade surplus would cause an increase in the value of sterling
- net investment into the UK – FDI into the UK creates a demand for sterling whereas UK investment abroad creates a supply of sterling; therefore, an increase in FDI from abroad would cause the value of sterling to rise
- speculation
- quantitative easing – since QE has the effect of increasing money supply, it is likely that this will cause a depreciation in the country's exchange rate.

e Attempts to manage the exchange rate may be achieved by:

- changing interest rates – if the central bank wishes to increase the value of the country's currency, it would raise interest rates, so making it more attractive for foreigners to place cash balances in the country's banks
- intervention on the foreign exchange market – if the central bank wishes to increase the value of the country's currency then it would buy its own currency.

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f Some countries try to gain competitive advantage by taking measures to lower the value of their currencies. However, if several countries do this then any advantage would disappear quickly. Consequently, there might be a decline in world trade if countries pursued such a policy – as happened in the 1930s.

g Impact of changes in exchange rates include:

- The current account of the balance of payments: a depreciation or devaluation will increase the competitiveness of a country's goods and services by causing a fall in the foreign currency price of its exports and an increase in the domestic price of its imports. However, there will only be an improvement in the current account of the balance of payments if the sum of the PEDs for exports and imports is greater than 1. This is called the Marshall-Lerner condition.

  Further, the impact on the current account may be different in the short run than in the long run. In the short run there might be a deterioration in the current account of the balance of payments because the demand for imports might be price inelastic if firms have stocks or if they are tied into contracts; and the demand for exports might be price inelastic because consumers take time to adjust to the new, lower, prices. However, in the long run demand for exports and imports is likely to become more price elastic so the significance of the above factors disappears. This difference in short-run and long-run effects is often referred to as the J curve effect.
- Economic growth and employment/unemployment: an increase in the competitiveness of a country's goods and services following a depreciation/devaluation should result in a decrease in unemployment as demand for the country's goods and services increases.
- Rate of inflation: the price of imported raw materials and manufactured goods will increase following a depreciation/devaluation. This could have inflationary consequences because firms' costs would increase and a wage-price spiral could ensue.
- FDI flows: following a depreciation/devaluation it would be cheaper for global companies to invest in the country so FDI might increase.

An appreciation/revaluation of a country's currency would have the reverse of the above effects.

4.1.9 International competitiveness

a Competitiveness refers to the ability of a country to sell its goods/services abroad. Competitiveness is usually determined by the price and/or quality of the good or service.

b Factors influencing international competitiveness include:

- relative unit labour costs which are heavily dependent on productivity
- wages and non-wage costs relative to those of competitors
- rate of inflation relative to competitors
- regulation relative to that of competitors.

c A country which is internationally competitive is likely to be able to enjoy export-led growth with positive implications for employment and its balance of payments on the current account. The reverse would be true for a country which is internationally uncompetitive. Countries often try to improve their international competitiveness by adopting supply-side policies.

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4.2 Poverty and inequality

The different causes and consequences of poverty and inequality in both developed and developing countries should be considered in this section. It should be noted that, while absolute poverty is decreasing globally, some countries have experienced increases in inequality over the last 25 years. The possible reasons for these changes should be explored.

4.2.1 Absolute and relative poverty

a Absolute poverty exists when a person's continued daily existence is threatened because they have insufficient resources to meet their basic needs.

Relative poverty exists when a person is poor compared with others in their society. Most poverty in developed countries tends to be relative poverty.

b Absolute poverty – in 2008, the World Bank set the poverty line at $1.25 a day at 2005 GDP measured at purchasing power parity. Some economists measure the poverty line at $2 a day.

Relative poverty – this is measured in comparison with other people in the country and will vary between countries. People are considered to be in relative poverty if they are living below a certain income threshold in a particular country. For example, in the EU, people falling below 60% of median income are said to be 'at-risk-of poverty' and are said to be relatively poor.

c Causes of changes in absolute poverty and relative poverty include: changes in the rate of economic growth, economic development, FDI, policies which result in increased trade, government tax and benefits policies, and changes in asset prices.

4.2.2 Inequality

a Students are required to understand the distinction between wealth and income inequality. Wealth relates to differences in people's stock of assets. Income is a flow concept; therefore, income inequality relates to differences in people's income flows from wages, dividends, rents, etc.

b Measures of inequality include the Lorenz curve and the Gini coefficient. Lorenz curves plot cumulative share of income (or wealth) against the cumulative share of the population with that income (or wealth). To determine the degree of inequality, the Gini coefficient may be calculated:

$$G = \frac{A}{A + B}$$

A represents the area between the diagonal line and the Lorenz curve and B represents the area under the Lorenz curve. The Gini coefficient will have a value between 0 and 1, with 0 representing absolute equality (the 45° line) and 1 representing absolute inequality (i.e. the Lorenz curve would lie along the horizontal and vertical axes).

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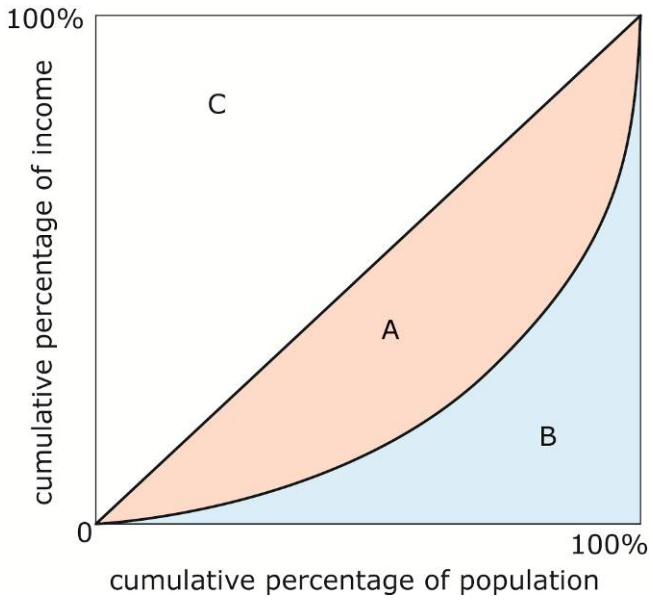

c Causes of income and wealth inequality within and between countries include:

- education, training and skills
- wage rate including minimum wage rates
- strength of trade unions
- degree of employment protection
- social benefits
- the tax system (e.g. how progressive it is)
- pension entitlements
- ownership of assets (e.g. houses and shares) and inheritance.

d It is often observed that, as a country develops and its GDP grows from a subsistence economy, inequality initially increases and then decreases. This observation could be analysed by reference to the Kuznet's curve (although this is not a requirement). Industrialisation results in increased inequality as workers move from the lower productivity and lower paid agricultural sector into the higher productivity manufacturing sector. However, at some point, inequality starts to decrease. This may be because governments have more resources to redistribute income through the tax and benefit system.

e Inequality in a free market economy is inevitable, since people with higher skills and abilities will attract higher wages, whereas those with poor skill levels will earn nothing. Further, private ownership of resources means that some people will acquire considerably more assets than others which, in turn, may generate an income. Some argue that inequality is essential in a capitalist system to provide an incentive for individuals to take risks in the knowledge that they, personally, will benefit from any profits made.

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4.3 Emerging and developing economies

Students should understand the ways in which development may be measured, and the nature and causes of constraints on growth and development. They should understand the nature of different measures to promote growth and development, and be able to evaluate them, remembering that the validity of different measures is dependent on the particular characteristics of the country undergoing development. For all parts of this section, case studies may be particularly useful. For example, it might be helpful to consider at least one Asian country, one African country and one South American country.

4.3.1 Measures of development

a There are three equal weights within the Human Development Index (HDI): education (the mean years of schooling for an adult aged 25 and expected years of schooling for a pre-school child), health (life expectancy at birth) and real GNI per head at PPPs. These are ranked in an index between 0 and 1: the higher the value, the higher the level of development.

b The advantage of HDI is that it combines the effects of increased growth with other quality of life indicators and, in that respect, is a useful measure of development. However, this index does not take account of inequality, poverty or other measures of deprivation and, in that respect, is regarded by some as being of limited value.

c Other measures of development include the following:

- The Inequality-adjusted HDI (IHDI) – this was introduced in 2010. The IHDI is the HDI adjusted for inequalities in the distribution of achievements in each of the three dimensions of the HDI (health, education and income). The IHDI will be equal to the HDI value when there is no inequality, but falls below the HDI value as inequality rises. The difference between the HDI and the IHDI represents the 'loss' in potential human development due to inequality and can be expressed as a percentage.
- The Multi-dimensional Poverty Index (MPI) – this was published for the first time in 2010. It reports and complements money-based measures by considering multiple deprivations and their overlap. The index identifies deprivations across the same three dimensions as the HDI (in health, education and standard of living). It shows the number of people who are multi-dimensionally poor (suffering deprivations in 33% of weighted indicators) and the number of deprivations with which poor households typically contend. It can be deconstructed by region, ethnicity and other groupings as well as by dimension, making it a useful tool for policymakers.

In addition to the above composite measure of development, a variety of other indicators may be used, including:

- the proportion of the male population engaged in agriculture
- energy consumption per person
- the proportion of the population with access to clean water
- the proportion of the population with internet access
- mobile phones per thousand of population.

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4.3.2 Factors influencing growth and development

Economic growth is an increase in real GDP/an increase in the productive potential of a country. Economic development is an increase in welfare or living standards over time. Unlike economic growth, economic development is a subjective concept.

a Students should explore the impact of economic factors in different countries:

- Primary product dependency: primary product dependency may be undesirable for a variety of reasons including: price fluctuations, the low value added of many commodities and demand for primary products is often income inelastic. This means that, as world incomes rise, the country's terms of trade will fall because prices of manufactured goods, whose demand is often income elastic will rise, relative to the prices of primary products. This is referred to as the Prebisch-Singer hypothesis.
- Volatility in commodity prices: the price inelasticity of demand and supply for commodities will often result in price instability. In turn, this will cause the revenue of producers and foreign currency earnings of the country to fluctuate. This uncertainty may deter investment.
- Levels of savings and investment: the Harrod-Domar model suggests that inadequate savings lead to low investment. In turn, this means that capital accumulation will be low, resulting in slow economic growth. However, this model should be evaluated; for example, it focuses on physical investment only and ignores other sources of investment.
- Foreign currency gap: some developing and emerging economies face a shortage of foreign currency. This may be because their earnings from exports are relatively low, or because world oil prices have increased or because they have large international debts on terms that they cannot afford to repay; for example, if interest rates increase.
- Capital flight: another problem is capital flight. The owners of any extra income that could be saved and therefore used for investment often withdraw their money from the country in search of higher returns abroad.
- Demographic factors: many developing and emerging countries are characterised by high birth and death rates which can result in high dependency ratios. A further problem for some countries is that they face ageing populations, sometimes as a result of policies followed in the past; for example, China's one child policy.
- Access to credit and banking: if individuals cannot access credit and banking services then they may not be able to secure loans to start businesses, therefore limiting the scope for growth and development.
- Infrastructure: if infrastructure is inadequate then businesses will find it difficult and costly to trade. Further, poor infrastructure will act as a deterrent to domestic investment and to FDI.
- Education/skills: countries which place an emphasis on education and provide some state funding are more likely to grow and develop. This improves human capital and shifts the PPF outwards.
- Absence of property rights: if property rights are not established then it may be difficult for individuals to secure loans because they will have no collateral.

b Non-economic factors in this section include the impact of: corruption, poor governance, wars, political instability and geography.

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4.3.3 Strategies influencing growth and development

Many of the strategies in this section involve policies which have already been covered. Consequently, much of this section does not involve teaching of new material.

a Market-orientated strategies:

- Trade liberalisation – this relates to measures designed to remove trade barriers. The benefits of free trade are covered in section 4.1.2.
- Promotion of FDI – the impact of increased investment was considered in Theme 2 and the effect of FDI on the balance of payments was mentioned in section 4.1.8.
- Removal of government subsidies – the impact of subsidies was covered in Theme 1. Students should be able to undertake the reverse analysis by considering the effect of the removal of subsidies.
- Floating exchange rate systems – in many cases developing countries have tried to maintain an exchange rate at an artificially high rate. Consequently, floating the exchange rate should result in a depreciation of the currency. Floating exchange rates were covered in section 4.1.8.
- Microfinance schemes – these relate to providing extremely poor people with small loans (microcredit) to help them engage in productive activities or to grow their tiny businesses.
- Privatisation – this was covered in Theme 3.

b Interventionist strategies:

- Development of human capital – this is covered in Theme 2 (section 2.6.3) on supply-side policies.
- Protectionism – see section 4.1.6.
- Managed exchange rates – see section 4.1.8.
- Infrastructure development – see Theme 2 (section 2.6.3) on supply-side policies.
- Promoting joint ventures with global companies – see Theme 3 (section 3.1.2) on the growth of companies.
- Buffer stock schemes – these entail a price ceiling and a price floor. If the price of the commodity drops too low (probably through high supply), then the government or buffer stock authority purchases large quantities of the good and stores it (xy in the diagram below). This will reduce supply sufficiently to ensure that the price does not fall below the floor price. If the price becomes too high, the government or buffer stock authority release the good onto the market from storage, thus increasing supply sufficiently to ensure that the price does not rise above the ceiling price (ab in the diagram below). The problems with buffer stock schemes are that storage is expensive, transport to and from storage is expensive, it is very difficult to equate supply and demand in the long run, and all producers need to be part of the scheme for it to be effective.

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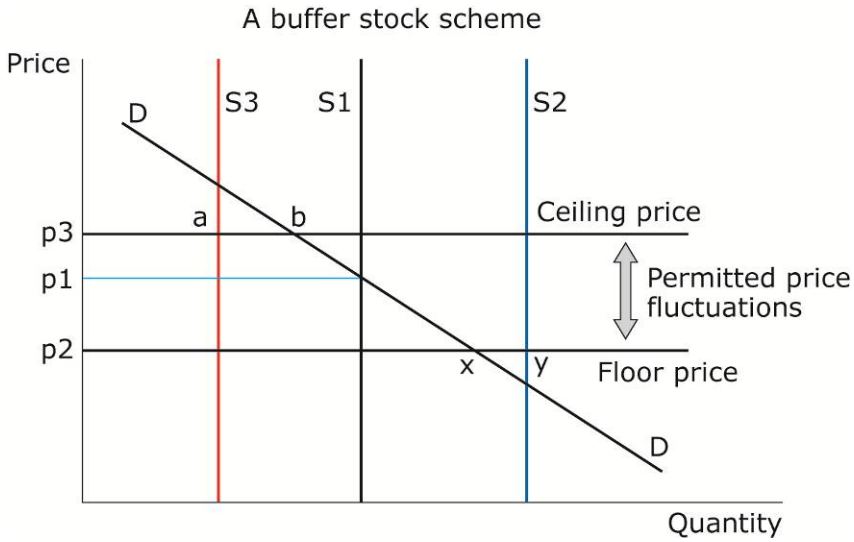

c Other strategies:

- Industrialisation, the Lewis model: this is a structural change model. Lewis argued that growth would be achieved by the migration of workers from the rural primary sector to the modern industrial urban sector – this would occur through higher wage incentives. However, this model may be inappropriate for some emerging economies, where there are often many unemployed in urban areas. This theory also assumes that secondary-sector production would be labour-intensive, whereas it is often capital-intensive.
- Development of tourism: many LDCs are increasingly highly dependent on tourism from the developed world as incomes rise. They may encourage tourism because it allows foreign currency to be earned and it is labour-intensive. However, there may be significant negative externalities resulting from tourism growth; for example, use of clean water for tourists not locals, expansion of airports causing pollution and loss of farmland. The Kingdom of Bhutan, in the Himalayas, aims to tackle this problem by taxing tourists heavily for every night they spend in the country.
- Development of primary industries: some countries have managed to develop on the basis of primary products in which they have a comparative advantage. For example, Chile has benefited from the production of copper (at least, when the price is high) and also on other primary products with a high income elasticity of demand, such as blueberries and papaya.
- Fair trade schemes: the WTO works towards reducing protectionist policies. Many developing and emerging economies are unable to sell their primary-sector products abroad because of protectionism in the developed world or can only do so at relatively low prices because of the monopsony power of large companies in developed countries. The fair trade movement is one way in which farmers in these countries are supposed to benefit, therefore improving development. Such schemes guarantee farmers a certain price for their products, so that they are not subject to monopsony purchasing power from developed countries. However, there are often a significant number of 'middle men' involved, reducing the benefits that fair trade farmers receive. In addition, it is argued that supermarkets in developed countries are the main beneficiaries. Further, fair trade schemes can result in a misallocation of resources: low prices should encourage farmers to reallocate their resources to the production of more profitable goods.

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- Aid: there are different types of aid, ranging from humanitarian aid (such as food and shelter in times of emergency), to grants (sums of money that do not need to be repaid) and soft loans (money that must be repaid but at a concessionary rate of interest). While many in the developed world see aid as a positive thing, critics argue that much of the aid is squandered on projects that will not contribute to development, or diverted into the private bank accounts of government ministers. Other criticisms suggest that aid is channelled into projects which have captured the global media interest and that, in the long run, the provision of aid can reduce the level of development in a developing country.
- Debt relief: many developing countries hit a 'debt crisis' in the 1980s and 1990s, as they could not afford to pay the interest on their large debts to international financial institutions. This was a combination of interest rates rising and the value of the dollar rising (and most loans were agreed in terms of US dollars). Latin American countries and many African countries were among the worst hit – Mexico defaulted on its loans first, and others followed suit. This meant that these countries were then unable to borrow. The massive debts that they had to repay meant that the governments of these countries were unable to invest in human capital or other infrastructure necessary for growth and development.

d Students are not expected to study the role of international institutions and non-government organisations (NGOs) in depth but to have an awareness of their roles.

The main functions of the World Bank include: granting reconstruction loans to war devastated countries; granting developmental loans to underdeveloped countries; providing loans to governments for agriculture, irrigation, power, transport, water supply, education, health, etc.; and encouraging industrial development of underdeveloped countries by promoting economic reforms.

The main functions of the International Monetary Fund (IMF) include: to ensure the stability of the international monetary system – the system of exchange rates and international payments that enables countries (and their citizens) to transact with each other; to maintain stability and prevent crises in the international monetary system by reviewing country policies and national, regional and global economic and financial developments through a formal system known as surveillance; and to provide member countries with finance to correct balance of payments problems.

An NGO is any non-profit, voluntary citizens' group which is organised on a local, national or international level. The work of NGOs has brought community-based development to the forefront of strategies to promote growth and development. The key characteristics of these community-based schemes are: local control of small scale projects, self-reliance, an emphasis on using the skills available and environmental sustainability.

4.4 The financial sector

This topic is designed to give students an introduction to the financial sector of the economy, including the role of financial markets, market failure in the financial markets and the functions of central banks.

4.4.1 Role of financial markets

a (a to e) Students are required to have a basic understanding of financial markets in performing various roles: to facilitate saving; to lend to businesses and individuals; to provide a means by which goods and services can be traded easily; to reduce risks and provide greater certainty by enabling commodities and currencies to be traded in futures markets; and to provide a market in which stocks and shares can be traded.

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4.4.2 Market failure in the financial sector

The examples of market failure in this section are covered in Theme 1 but are related here to the context of the financial sector. For example:

- Asymmetric information – regulators may have insufficient information, relative to the bankers, to ensure the stability of the banking system.
- Externalities – decisions by the financial sector could cause external costs. For example, in 2009, the UK government had to spend over $45bn of taxpayers' money to prevent the collapse of RBS.
- Moral hazard – by rescuing banks from collapse, there is a danger that they will follow inappropriate policies in the future because they know that the government will rescue them.
- Speculation and market bubbles – poor lending decisions by bankers can lead to market bubbles. For example, excessive lending to home buyers who have no deposit and/or poor credit records can result in a housing bubble.
- Market rigging – it has been alleged that some bankers have been involved in rigging key interest rates and exchange rates.

4.4.3 Role of central banks

a The key functions of central banks should be considered:

- Implementation of monetary policy – in a UK context this was covered in Theme 2 (section 2.6.2).
- Banker to the government – central banks perform various banking services such as handling accounts of government departments and making short-term advances to the government.
- Banker to the banks – lender of last resort – if banks run into liquidity problems they may be able to borrow direct from the central bank.
- Role in regulation of the banking industry – one example is that the central bank may increase the reserve requirements that the banks need to have at the central bank and therefore reduce the amount of money in circulation. Following the financial crisis, regulations are being changed and new ones introduced. Students will not be expected to know details of regulations but would be expected to examine the possible consequences of those mentioned in, for example, a data response question.

4.5 Role of the state in the macroeconomy

This section builds on Theme 2 (section 2.6.2) in which the concepts of fiscal policy, taxes as a leakage from the circular flow, and direct and indirect taxes were introduced. Students are now required to consider the macroeconomic effects of changes in taxation more fully; reasons for changes in the size and composition of public expenditure and the significance of its level for the economy; and the significance of the state of public finances.

4.5.1 Public expenditure

This section relates to public (government expenditure), beginning with its different types. Students should be able to suggest possible reasons for changes in the level of public expenditure and its composition as well as demonstrating the ability to analyse and evaluate the impact of changes in these levels.

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a Capital expenditure refers to long-term investment expenditure on capital projects such as Crossrail or new hospitals by the government.

Current expenditure relates to the government's day-to-day expenditure on goods and services. Examples include wages and salaries of civil servants, and drugs used by the NHS.

Transfer payments are those made by the state to individuals without there being any exchange of goods or services – there is no production in return for these payments. Typically, transfer payments are used as a means of redistributing income. UK examples include Employment and Support Allowance for ill and disabled people and child benefit.

b Key factors in the changing size and composition of public expenditure in a global context include:

- changing incomes, such as demand for many state-provided services is income elastic
- changing age distributions – ageing populations in many developed countries result in increased demands on healthcare
- changing expectations – new technology in services such as health and education results in increased expectations
- the financial crisis – this has led to an increased proportion of public expenditure being spent on debt interest in many countries.

c If public expenditure as a proportion of GDP is relatively high then there may be some undesirable outcomes. For example:

- Crowding out – two types may be identified: resource or financial crowding out. Resource crowding out occurs when the economy is operating at full employment and the expansion of the public sector means that there is a shortage of resources in the private sector. Financial crowding out arises when the expansion of the state sector is financed by increased government borrowing. This causes an increased demand for loanable funds which drives up interest rates and crowds out private sector investment.
- Low productivity and a low rate of economic growth – this occurs because the state sector is not motivated by the profit motive and so there may be little incentive to increase efficiency.
- An increase in the national debt – if there were successive years in which there was a budget deficit, this would increase the size of the national debt. In turn, this would result in increased interest payments on the national debt in the future which may mean that less public expenditure is available for spending on public services such as new schools and hospitals.

On the other hand, if there is increased public expenditure on infrastructure, transport, the health service and on education and training then this might help to promote economic growth in the future.

4.5.2 Taxation

This section builds on work covered in Themes 1 and 2. Students should have a clear understanding of the different categories and types of taxes and the impact of changes in these taxes.

a Students should understand the distinction between progressive, proportional and regressive taxes:

- Progressive taxation – as income rises, a larger percentage of income is paid in tax (e.g. UK income tax).
- Proportional taxation – the percentage of income paid in tax is constant, no matter what the level of income.

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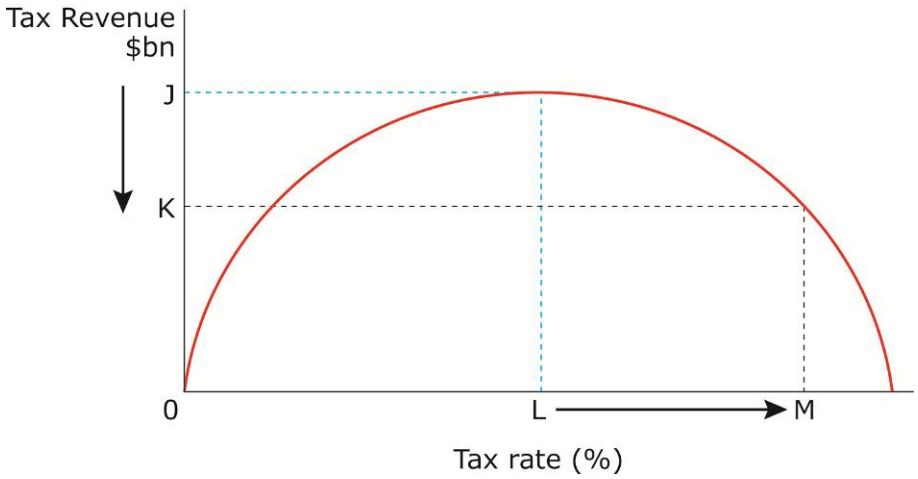
- Regressive taxation – as income rises, a smaller percentage of income is paid in tax (for example, excise duties on tobacco, alcohol and petrol in the UK).

b The economic effects of changes in direct and indirect tax rates on other variables include the following:

- Incentives to work – for example, higher rates of income tax might act as a disincentive for the unemployed to accept jobs or for those in employment to work overtime.
- Tax revenues – reference to the Laffer curve, shown below:



When the tax rate is increased to point L, tax revenues increase. However, a further increase in the tax rate from L to M causes a fall in tax revenue from J to K. This may be explained by the following factors: increased disincentives to work; an increase in tax avoidance and evasion; and a rise in the number of tax exiles.

- Income distribution – a progressive tax, such as income tax, will tend to redistribute income from those on higher incomes to those on lower incomes if the tax revenues raised are used for benefits to the poor.
- Real output and employment – an increase in taxes will reduce aggregate demand because taxes are a leakage from the circular flow of income. In turn, this might reduce real output and cause an increase in unemployment.
- Rate of inflation – an increase in indirect taxes could be inflationary if it causes a wage-price spiral; for example, increased indirect tax causes a rise in prices which, in turn, leads to increased wage demands by workers causing firms' costs to rise and a further rise in prices.
- FDI – a higher rate of corporation tax might deter FDI if rates are lower in other countries.
- The balance of trade – an increase in income tax would reduce disposable income and consumption. In turn, this would reduce demand for imports and so result in an improvement in the balance of trade.

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4.5.3 Public sector finances

a (a to c) A fiscal deficit occurs when government spending exceeds tax revenue, whereas the national debt is the cumulative total of past government borrowing.

A cyclical fiscal deficit occurs during a downturn in the economy because tax revenues will be falling and government expenditure (for example on social benefits) will be increasing. Such a deficit should disappear when the economy returns to its trend growth rate. A structural fiscal deficit remains even when the economy is operating at its full potential. It is, therefore, regarded as a more serious problem than a cyclical deficit.

d Factors influencing the size of fiscal deficits include: the state of the economy, the housing market (which influences revenues from stamp duties), political priorities and unplanned events.

e Factors influencing the size of national debts include the size of fiscal deficits and government policies.

f The size of fiscal deficits and national debts has an impact on: interest rates, debt servicing, inter-generational equity, the rate of inflation, the country's credit rating and FDI.

4.5.4 Macroeconomic policies in a global context

This sub-topic builds on the work on macro policies covered in Theme 2 – students should recap this area as a basis for this part of the specification. Students should be aware of global causes of national macroeconomic problems, and therefore be aware of the limitations of national macroeconomic policies in correcting these problems. This would be a good opportunity to discuss the differences between Keynesian and Monetarist approaches, using LR and SR aggregate supply curves.

a After many years in which fiscal policy was largely passive, the financial crisis of 2008 resulted in the use by many countries of fiscal policy as a Keynesian tool to stimulate the economy. There is an important distinction between automatic stabilisers and discretionary fiscal policy:

- Automatic stabilisers: government spending/taxation vary automatically over the course of the economic cycle (e.g. G rises in a slump owing to increased benefit payments and T falls as fewer people work and spend).
- Discretionary fiscal policy – deliberate alteration of government expenditure and taxation designed to achieve its economic objectives.

Similarly, students should consider the use of monetary policy in a global context and understand the implications of changes in interest rates, inflation targets, quantitative easing and other monetary tools.

Students should understand that control of the money supply itself is extremely difficult, as it is nearly impossible to actually measure the amount of money. Further, control of inflation is becoming more difficult as the influence of globalisation increases. For example, the growth of China has pushed up prices of commodities, including food, causing cost-push inflation. This makes the decisions of policy makers all the more difficult, causing more uncertainty about the future.

Supply-side policies are designed to increase the productive potential of the country and, therefore, increase its long-run aggregate supply. Such policies are often advocated as part of a strategy to increase economic development because they include: improving education so that people acquire appropriate skills required in a modern economy; improving healthcare so that life expectancy increases; teaching entrepreneurship so that more people are able to start their own businesses; and reducing discrimination to encourage increased labour force participation.

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Direct controls are forms of control which work outside the market system. They include: maximum price controls (for example, these might be used in developing countries to control the price of food), minimum guaranteed prices (including national minimum wages) and wage controls.

These policies should be considered with reference to the impact of:

- measures to reduce fiscal deficits and national debts – for example, governments might increase taxes and reduce government expenditure
- measures to reduce poverty and inequality – for example, a government might provide education and healthcare free of charge as means of reducing poverty; or the tax system may be made more progressive and means-tested benefits may be increased
- changes in interest rates and the supply of money – reference should be made to Milton Friedman's (Monetarist) view of inflation, 'inflation is always and everywhere a monetary phenomenon', in contrast with the Keynesian view that changes in money supply perform a more passive role by increasing or decreasing to accommodate changes in the price level
- measures to increase international competitiveness – these may be linked with policies previously considered, such as supply-side measures aimed at increasing productivity; devaluation; or measures to engineer a depreciation of the currency.

b Students could explore the effects of possible external shocks to the global economy, such as a significant change in oil and/or commodity prices; a major financial crisis; or a serious political crisis affecting a country or trading bloc.

c Measures to control the operations of global companies might include a requirement that local factors of production, such as labour and local component suppliers, are used; or a requirement that the global company exports a certain proportion of its output; or requirements to set up joint ventures with technology transfer to the domestic firm.

A particular issue is that of transfer pricing: this refers to the pricing policies adopted by groups of companies for transactions between companies in the group, such as the sale of goods or the provision of services. With corporate tax rates varying considerably from country to country, there is the potential for global companies to reduce their global tax charge by manipulating the prices charged on intra-group transactions. Measures to regulate transfer pricing are more difficult for less powerful countries.

One limit to a government's ability to control global companies is that many are 'footloose', i.e. they may be able to move to another country easily and with little cost. However, international agreements such as TRIMS (Trade Related Investment Measures) introduced by the WTO have, for example, banned the use of local content requirements.

d The problems facing policy makers when applying policies include inaccurate information, risks and uncertainties and the inability to control external shocks.

- Inaccurate information – inaccurate or out-of-date information could include on GDP, unemployment or the balance of payments on current account when setting interest rates.
- Risks and uncertainties – it may be difficult for the authorities to predict the impact of quantitative easing; or the impact of a country leaving the Eurozone. Further uncertainties relate to the future behaviour of consumers or businesses in their spending and investment plans.
- Inability to control external shocks – in an increasingly globalised world in which countries are more closely integrated economically, it becomes more and more difficult for an individual country to isolate itself from external shocks.

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5. Assessment guidance

5.1 Implications of linear assessment

For the AS level qualification, both exams (Paper 1 and Paper 2) must be sat at the end of the course (normally one year).

For the A level qualification, the three exams (Paper 1, Paper 2 and Paper 3) must be sat at the end of the course (normally 2 years).

There will be no January assessment window, and it will not be possible to take assessments in different exam series: all assessments must be completed together at the end of the course.

It will not be possible for students to re-sit individual assessments. Students may re-take the whole AS or A level qualification.

5.2 AS level assessment

The focus at AS level is on building knowledge and understanding of core microeconomic and macroeconomic concepts, with a greater emphasis on breadth rather than depth.

There are two externally assessed papers at AS level. Each paper comprises 80 marks and is 1.5 hours in duration.

Each paper assesses distinct areas of the qualification content, with Paper 1 assessing Theme 1 content and Paper 2 assessing Theme 2 content. In each paper, Section A assesses breadth, with multiple-choice and short-answer questions, and has a greater focus on AO1 and AO2. Section B is based on stimulus material and places greater emphasis on depth (AO3 and AO4), enabling students to demonstrate higher-order skills. The final question assesses students understanding of economic concepts and their ability to make connections in a sustained manner through extended writing.

The structure of the two papers is the same to ensure a consistent approach to assessing the different content areas.

All of the stimulus material is based on real data. This supports students in developing a holistic understanding of how the core concepts and theories relate to the real world in which they live and work. This approach also supports students in genuine application to a range of economic contexts.

At AS level synoptic assessment is achieved through linking topics within themes – students are required to make connections across microeconomic or macroeconomic concepts and understand the linkages across core content areas.

5.3 A level assessment

There are three externally assessed papers at A level. Each comprises 100 marks and is 2 hours in duration.

Paper 1 and Paper 2 assess distinct areas of the qualification content, with Paper 1 assessing Theme 1 and Theme 3 (microeconomic) content and Paper 2 assessing Theme 2 and Theme 4 (macroeconomic) content. In each of these papers, Section A assesses breadth, with multiple-choice and short-answer questions, and has a greater focus on AO1 and AO2. Section B is based on stimulus material and places greater emphasis on depth (AO3 and AO4), enabling students to demonstrate higher-order skills. Section C assesses extended writing skills.

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Paper 3 assesses across the full qualification content, requiring students to draw on knowledge and understanding across all four themes and demonstrate a holistic understanding of the subject content. Both sections have the same structure but require students to apply their knowledge and understanding to two different contexts which have been chosen to reflect the breadth and depth of the subject across all of the Assessment Objectives.

As with the AS level, all of the stimulus material in the A level is based on real data to support students in developing a holistic understanding of how the core concepts and theories relate to the real world in which they live and work. This approach also supports students in genuine application to a range of economic contexts.

Choice has been limited in the A level papers to the extended open-response (25 mark) questions. This supports students in choosing an extended writing question on an issue they want to explore or are more engaged / familiar with. There is no choice of data response question. This allows students to focus on one, broader data response context, which supports comparability across papers and reduces time spent in the exam on processing a second data response context and question that will not contribute to the overall marks.

At A level synoptic assessment is achieved through linking themes across the specification (Theme 1 and Theme 3 in Paper 1, Theme 2 and Theme 4 in Paper 2), linking topics within themes and linking across all four themes (in Paper 3). Students are required to make connections and understand the linkages across the whole specification content at A level.

A key differentiator between the AS and A level assessments is that the A level papers draw on content from across all four themes; unlike the AS, Theme 1 and Theme 2 content is not assessed discretely at A level. Content in Theme 1 and Theme 2 may be assessed at both AS and A level, but the style of questions may be differentiated.

5.4 Question types

A range of question types have been used across the AS and A level assessments. The question types reflect the skills students should demonstrate both in terms of the questions themselves and in the way the associated mark schemes are constructed. The question types reflect not only the content being assessed but also the skills associated with economics.

A taxonomy has also been defined and will be applied consistently throughout the assessments to ensure students are rewarded for demonstrating the necessary skills. Careful consideration has been given to the taxonomies associated to particular question types, to ensure that Assessment Objectives are targeted consistently across questions.

The assessments comprise multiple-choice, short open-response and extended open-response questions.

Multiple-choice questions have been used to predominantly assess both discrete knowledge and technical understanding of economic concepts and issues (AO1) as well as the application of these concepts to a particular stimulus or context (AO2). Questions assessing AO1 will target lower-order cognitive skills and cognitive demand.

Short open-response questions have been used to assess both discrete knowledge and understanding of economic concepts and issues (AO1) as well as the application of these concepts to a particular stimulus or context (AO2). Questions assessing AO1 target lower-order skills. Short open-response questions also allow for the development of student responses, requiring students to make connections and show a logical chain of reasoning and therefore access higher-order cognitive skills and demand (AO3).

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Extended open-response items have been used to assess across the breadth of Assessment Objectives.

5.5 Taxonomy (command words)

Taxonomy relates to the command words used in assessments. A taxonomy for Economics A has been defined and will be applied consistently to ensure students are rewarded for demonstrating the appropriate skills for the subject. Careful consideration has been given to the taxonomies associated with particular question types to ensure that assessment objectives are targeted consistently across questions. The variety of command words used has been reduced to provide clarity and consistency in the skills economics students are expected to display in the assessments.

The skills students are required to demonstrate in **extended responses** with levels based mark schemes are summarised in the table below.

Command / type	Requirements
Assess	Accurate knowledge and understanding; apply to context and/or use relevant examples; use of economic theory applied appropriately; and evaluation which is supported by chains of reasoning, in context and balanced.
Discuss	Accurate knowledge and understanding; apply to context and/or use relevant examples; use of economic theory applied appropriately; logical chains of reasoning; and evaluation which is supported by relevant reasoning, in context and balanced.
To what extent / Evaluate	Accurate knowledge and understanding; apply to context and/or use relevant examples; evidence fully and reliably integrated; use of economic theory applied appropriately; logical and coherent chains of reasoning; and evaluation which is supported by chains of reasoning, in context, with critical awareness and informed judgements.

5.6 Mark schemes

Skills based mark schemes have been developed for extended open response questions. These mark schemes provide a consistent understanding of the skills and connections between these skills for each question type and relate directly to the taxonomies (command words) used in the assessments. The bands within each mark scheme clearly show the progression of these skills from the lower bands to the higher bands. Focusing on the skills students are required to demonstrate within each command word ensures that wording is clear, reduces reliance on subjective statements such as ‘some analysis’ and reflects how teachers and examiners describe the qualities of student work, meaning the expectations are clear for teachers and for markers.

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For example, below is the mark scheme for a 10 mark 'assess' question in the sample assessment materials. The skills outlined in the Assessment Objectives (knowledge and understanding, application, analysis and evaluation) are connected and evidenced throughout the levels.

Level	Mark	Descriptor
	0	A completely inaccurate response
Level 1	1-2	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no link between causes and consequences.
Level 2	3-4	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or the answer may lack balance.
Level 3	5-6	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using relevant and focused examples which are fully integrated. Economic ideas are applied appropriately to the broad elements of the question.

Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1-2	Identification of generic evaluative comments without supporting evidence / reference to context.
Level 2	3-4	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation recognises different viewpoints and / or is critical of the evidence.

The mark schemes focus on the *quality* of student answers rather than the *quantity* of points made and, as such, do not state any number of points students should make in their responses. To guide teachers and markers, the breakdown of marks allocated to each Assessment Objective is given within the levels based mark schemes to identify the emphasis of each Assessment Objective within each question type; the required emphasis is evidenced in the level descriptors.
The application of the new mark schemes will be demonstrated in the exemplar materials (marked student answers to the sample assessment questions with examiner commentary) which will be available on the Edexcel website in spring 2015.

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6. Quantitative skills

6.1 Application of quantitative skills

Students are required to develop and demonstrate competence in the quantitative skills outlined in this section throughout the course of study. It is important for these skills to be applied to relevant economic contexts to ensure students develop a holistic understanding of the application of quantitative skills to economics. Students will already be familiar with most of the skills through their study of GCSE Maths and it is important to demonstrate how these mathematical skills are relevant to the study of economics.

Quantitative skills will be assessed in each exam series, with a minimum of 20% of the total marks across the A level and 15% of total marks across the AS level accounting for the assessment of the quantitative skills outlined in the Annex in the Department for Education's *Subject Content for Economics* document. These skills will be assessed at level 2 mathematical skills applied in an AS or A level Economics context.

Where appropriate, the quantitative skills have been included within the specified content in each theme of the specification. The tables in this section capture the direct references to the quantitative skills within the specification content and make suggestions of where these skills may be further developed through application to economic contexts. These are not exhaustive and there are opportunities for students to develop these skills throughout the specification content – students should be encouraged to practise and apply these skills throughout each theme.

The skills can also be developed through the use of stimulus material and case studies, providing opportunities for students to apply a range of quantitative skills to analyse real economic issues. This stimulus material should take the form of both qualitative and quantitative information.

Further support materials for quantitative skills, covering the possible methods, some suggested themes to use for applying the skills, suggested practice questions and areas of possible confusion for students, are available on the subject pages of the Edexcel website.

Examples of where quantitative skills can be included within the teaching and learning are given in the table below.

Quantitative skill	Application
Calculate, use and understand ratios, averages and fractions	1.2.3 Price, income and cross elasticities of demand 1.2.5 Elasticity of supply 2.4.4 The multiplier 3.3.1 Revenue 3.3.2 Costs 4.1.4 Terms of trade 4.1.8 Exchange rates

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Calculate, use and understand percentages, percentage changes and percentage point changes	1.2.3 Price, income and cross elasticities of demand 1.2.5 Elasticity of supply 2.1.1 Economic growth 2.1.2 Inflation 2.1.3 Employment and unemployment 2.5.2 Output gaps 4.5.1 Public expenditure
Understand and use the terms mean, median and relevant quantiles	2.1.1 Economic growth 4.2.2 Inequality 4.3.1 Measures of development
Construct and interpret a range of standard graphical forms	1.1.4 Production possibility frontiers 1.2.2 Demand 1.2.3 Price, income and cross elasticities of demand 1.2.4 Supply 1.2.5 Elasticity of supply 1.2.6 Price determination 1.2.7 Price mechanism 1.2.8 Consumer and producer surplus 1.2.9 Indirect taxes and subsidies 1.3.1 Types of market failure 1.3.2 Externalities 1.4.1 Government intervention in markets 2.2.1 The characteristics of aggregate demand 2.3.1 The characteristics of aggregate supply 2.4.1 National income 2.4.2 Injections and withdrawals 2.4.3 Equilibrium levels of output 3.3.2 Costs 3.3.3 Economies and diseconomies of scale 3.3.4 Normal profits, supernormal profits and losses 3.4.3 Monopolistic competition 3.4.4 Oligopoly 3.4.5 Monopoly 3.5.1 Demand for labour 3.5.2 Supply of labour 3.5.3 Wage determination in competitive and non-competitive markets 4.2.2 Inequality 4.5.2 Taxation

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	The use of stimulus material throughout the teaching and learning will enable students to interpret a wide range of standard graphical forms.
Calculate and interpret index numbers	2.1.2 Inflation 4.3.1 Measures of development Index numbers can be applied to a range of examples throughout the specification, such as GDP, production, productivity, terms of trade and unit labour costs.
Calculate cost, revenue and profit (marginal, average, totals)	3.3.1 Revenue 3.3.2 Costs 3.3.4 Normal profits, supernormal profits and losses
Make calculations to convert from money to real terms	2.1.1 Economic growth 2.1.2 Inflation
Make calculations of elasticity and interpret the result	1.2.3 Price, income and cross elasticities of demand 1.2.5 Elasticity of supply
Interpret, apply and analyse information in written, graphical, tabular and numerical forms	This skill can be developed throughout all of the sections listed in this table. The use of stimulus material throughout the teaching and learning will enable students to interpret a wide range of information in written, graphical, tabular and numerical forms. Interpreting, analysing and challenging this information will also create opportunities to develop other quantitative skills listed in this table, such as percentage changes and percentage point changes.

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7. Transferable skills

7.1 The need for 21st century skills

Higher education institutions, as well as employers, have consistently highlighted the need for students to develop a range of transferable skills to enable them to respond to the demands of undergraduate study and the world of work with confidence.

The Organisation for Economic Co-operation and Development (OECD) defines skills, or competencies, as 'the bundle of knowledge, attributes and capacities that can be learned and that enable individuals to successfully and consistently perform an activity or task and can be built upon and extended through learning.'[1]

The National Research Council's 21st century skills framework identifies three overarching skills domains: cognitive skills, interpersonal skills and intrapersonal skills. This section maps the new A levels in Economics to these skills, and outlines how transferable skills can be developed through the teaching and learning of business and how these skills are assessed (where applicable) through the relevant Assessment Objectives.

7.2 Cognitive skills

Cognitive skills relate to:

- Non-routine problem-solving: expert thinking, metacognition and creativity
- Systems thinking: decision-making, reasoning skills and critical thinking
- ICT literacy: the ability to access, manage, integrate, evaluate, construct and communicate using IT
- Collaborative problem-solving

	Cognitive skills		
	Assess	**Teach**	**Evidence**
Non-routine problem-solving			
Expert thinking	X	X	Examine information and data, recognise patterns and trends, and use and select the appropriate information and data. Understand the limitations of making recommendations and drawing conclusions. Diagnose/identify issues and make recommendations.

[1] OECD (2012), *Better Skills, Better Jobs, Better Lives (2012): http://skills.oecd.org/documents/OECDSkillsStrategyFINALENG.pdf.*

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Metacognition	X	X	Draw on knowledge and understanding to reflect on whether a strategy is working (or the likelihood of a strategy being effective) and make further recommendations as appropriate. Develop questioning skills and understand that 'there is no right answer'.
Creativity	X	X	Draw on a holistic understanding of economics to integrate available information and data.
Systems thinking			
System thinking	X	X	Develop a holistic understanding of economics in a range of contexts and understand economic influences. Develop a chain of reasoning of causes/consequences/costs/results, considering alternative explanations.
Decision making	X	X	Evaluate the consequences of actions by individuals, firms or governments for the national and global economy. Analyse and evaluate the relative costs and benefits of potential actions and make recommendations as appropriate.
Reasoning skills	X	X	Develop skills in systems analysis and systems evaluation, and abstract reasoning regarding how the different elements of a process interact.
Critical thinking	X	X	Develop a critical understanding of concepts and behaviour through understanding the extent to which economic agents are affected by, and respond to, economic issues, and the variables impacting on causes/consequences/costs/results. To develop the ability to think like an economist by using qualitative and quantitative evidence to make informed judgements, drawing on a toolkit of economic concepts, models and theories.
ICT literacy			
Access		X	Collect and/or retrieve information and data to form an evidence base from which recommendations and judgements can be made.
Manage		X	Develop skills through organising data; the complexity of the data will support higher level thinking.
Integrate		X	Interpret, summarise, compare and contrast information and weigh up qualitative and quantitative evidence. Draw on similar or different forms of representation and media.

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Evaluate		X	Reflect on information and data to make judgements about the quality, relevance, usefulness and efficiency of information. Use ICT to access a broad range of information and develop an understanding of the constraints of sources.
Construct		X	Use ICT to generate new knowledge by adapting, applying, representing and authoring information; for example, using spreadsheets for data manipulation or graphing tools to illustrate trends.
Communicate		X	Convey information and knowledge to various individuals and/or groups; develop skills in communicating through a range of techniques and media.
Collaborative problem solving			
Collaborative problem solving		X	Establish and maintain shared understanding and team organisation and take appropriate action, developed through in-class group work, competitions and economic debates. Understand that there are different economic perspectives.

7.3 Interpersonal skills

Interpersonal skills relate to:

- Communication: active listening, oral communication, written communication, assertive communication and non-verbal communication
- Relationship building: teamwork, trust, intercultural sensitivity, self-presentation, social influence and conflict resolution and negotiation

	Interpersonal skills		
	Assess	**Teach**	**Evidence**
Communication			
Active Listening		X	Engage with the viewpoints of others and understand any ambiguities in order to debate issues, especially with regards to questioning ideas and statements.
Oral communication		X	Develop skills in articulating arguments and debates, questioning concepts and providing answers to justify recommendations through group discussions and peer learning.
Written communication	X	X	Write coherently and structure responses in assessments. Develop skills in how to write for different audiences.
Assertive	X	X	Develop skills in forming and sustaining an argument, how to present an

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communication			argument (i.e. being assertive, not aggressive), presenting facts and opinions and drawing on an evidence base to support a position.
Non-verbal communication		X	Develop skills in reinforcing spoken communication through body language, gestures, tone and artefacts; for example, in-class presentations and group discussions.
Relationship building			
Teamwork		X	Develop an understanding of how to work with others and support team members through group work, joint research projects and debates.
Trust		X	Develop a belief in the integrity and reliability of another person offering a different perspective or behaviour in economics through teamwork and group work.
Intercultural sensitivity	X	X	Develop an understanding of intercultural sensitivity, supported through economic content; for example, understanding the impact of economic factors influencing growth and development in different countries.
Self-presentation		X	Influence the reactions and images people have of individuals and their ideas. Understand that managing these impressions encompass a wide range of behaviours designed to create a positive influence on work colleagues.
Social influence	X	X	Develop an understanding of current issues; for example, how society is changing, understanding different influences and the importance of these for economic agents.
Conflict resolution and negotiation		X	Weigh up arguments and, through doing this, develop an understanding of how to resolve conflicts in groups (different opinions). Synthesise the best ideas from all viewpoints and perspectives, and use these to make recommendations.

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7.4 Intrapersonal skills

Intrapersonal skills relate to:

- Adaptability: the ability and willingness to cope with uncertain, new and rapidly changing conditions, handling work stress and adapting to different personalities, communication styles and cultures
- Self-management and self-development: work remotely in virtual terms, work autonomously, be self-motivating and self-monitoring, and the willingness and ability to acquire new information and skills related to work

	Intrapersonal skills		
	Assess	**Teach**	**Evidence**
Adaptability			
Ability and willingness to cope with uncertain, new and rapidly changing conditions		X	Develop the ability to adapt to changing situations, unexpected events and ambiguity; for example, understanding market failure and responding to current issues.
Handling work stress		X	Develop the ability to analyse the known and unknown as part of a process of making recommendations and coming to judgments. Direct efforts towards constructive solutions/recommendations.
Adapting to different personalities, communication styles and cultures		X	Understand that economics can be studied from a range of perspectives: develop skills in being flexible and listening to the views of others. Understand the importance of tailoring behaviour to persuade, influence and work efficiently; leading groups; adjusting behaviour to show respect for value and customs; and understand the implications of their own behaviour.
Self-management and self-development			
Work remotely, in virtual terms		X	Undertake independent learning and research, read around the subject, keep up-to-date with current issues, using the available tools to achieve this (i.e. range of media channels) and seek sources of help as appropriate (e.g. social media for peer support).
Work autonomously		X	Develop own way of working and manage homework and revision tasks with little or no supervision.

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Be self-motivating and self-monitoring		X	Through the course content A level students develop an understanding of setting goals/targets, devising plans, the importance of motivation and performance strategies.
Willingness and ability to acquire new information and skills related to work		X	Undertake wider reading and independent research skills to keep up-to-date with economic issues and thinking. Be proactive in developing relevant skills by drawing on and applying subject knowledge to competitions and related courses, or the Extended Project Qualification.

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8. Economics and the EPQ

The Extended Project Qualification (EPQ) is a standalone qualification that can be taken alongside an A level. The EPQ supports the development of independent learning skills such as research, critical thinking, extended writing and project management. Students identify and agree a topic of their choice which may or may not be related to an A level subject they are already studying.

Economics students may wish to choose a topic of interest from within the Economics A specification content to explore for their EPQ. For example, they may be interested in exploring a controversial economic issue such as High Speed rail (HS2), UK membership of the EU or taxing wealth, or investigate an aspect of economics, such as a study of the impact of unemployment on the local community.

Students are not permitted to use work which has been or will be submitted for another qualification for their EPQ. Centres should refer to the EPQ specifications for further guidance and contact the relevant awarding organisation if there are any questions regarding choice of topic for the EPQ.

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