

A LEVEL

Delivery Guide

H460

ECONOMICS

Theme: Aggregate demand and aggregate supply

June 2015



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Introduction

Delivery guides are designed to represent a body of knowledge about teaching a particular topic and contain:

- Content: a clear outline of the content covered by the delivery guide;
- Thinking Conceptually: expert guidance on the key concepts involved, common difficulties students may have, approaches to teaching that can help students understand these concepts and how this topic links conceptually to other areas of the subject;
- Thinking Contextually: a range of suggested teaching activities using a variety of themes so that different activities can be selected that best suit particular classes, learning styles or teaching approaches.

If you have any feedback on this Delivery Guide or suggestions for other resources you would like OCR to develop, please email resources.feedback@ocr.org.uk.

KEY



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A Level content only



Curriculum Content Circular flow of income

Macroeconomics: Aggregate demand and aggregate supply > Circular flow of income

- explain the income, output and expenditure methods of measuring national income
- explain what is meant by the circular flow of income
- explain what is meant by injections and leakages within the circular flow
- distinguish between physical and monetary flows
- explain what is meant by the average and marginal propensities to consume and save
- explain what is meant by the marginal propensity to withdraw (marginal propensity to save, marginal rate of tax, marginal propensity to import)
- calculate average and marginal propensities to consume, save and withdraw.



Thinking Conceptually Circular flow of income

The circular flow of income underpins the consequences of both demand and supply-side policies. Students should be encouraged to refer to it whenever they're discussing expansionary or contractionary fiscal or monetary policy.

This is obviously a macroeconomic concept that has microeconomic connections, such as factors of production and their rewards.

Approaches to teaching the content

This can be taught either through a diagram of the entire circular flow, with a teacher explanation, or you could add pieces of the circular flow as you build up the explanation. The circular flow of income is best shown as a diagram initially so students can visualize how it works. Because they won't be asked to recreate the circular flow as a diagram, they won't need to memorise it, they do need to be able to explain what is meant by the circular flow of income and elements of it, and therefore the understanding of what it is should be the main objective.

A more interactive method could be to ask students to help you draw the circular flow – see below for ideas.

Teaching the circular flow of income enables students to get an overarching picture of how an economy can operate but also offers the opportunity for debate regarding the propensity to withdraw, what influences this and the consequences for the multiplier and impact of subsequent government policy.

Common misconceptions or difficulties students may have

The output, expenditure and income methods of measuring national income can be a little difficult at first.

Injections and leakages can be muddled.

Why taxation is a leakage as it funds government expenditure can also sometimes be tricky.

Calculation of average and marginal propensities of consume, save and withdraw can be hard.

Conceptual links to other areas of the specification – useful ways to approach this topic to set students up for topics later in the course

The circular flow of income links to a number of topics, particularly in the macroeconomic section of the specification, such as 'Economic policy objectives'; 'Economic growth'; 'Aggregate demand and aggregate supply'; 'national income multiplier' (A Level only); 'Monetary policy'; 'Fiscal policy'.

A Level
only



Thinking Contextually Circular flow of income

The average and marginal propensities to consume, save and withdraw can be related to sub-groups of the population to discuss how they'd react differently with respect to their consumption or saving patterns. For example, different income groups and different age groups will have different marginal propensities to consume and marginal propensities to save.

Activities	Resources
<p>Circular flow of income: speed sorting</p> <p>The aim is to introduce the circular flow of income, leakages and injections.</p> <p>Details:</p> <ol style="list-style-type: none">1) Give students a grid with all the key elements of the circular flow of income. Also give them a sheet with arrows drawn but no entries added.2) Now give students 60 seconds to try to assemble them. Check and add notes. This can also be done with a giant-sized version.3) Repeat for injections and leakages. <p>Duration: 15+ minutes, depending on time given for explanation and notes.</p>	
<p>Introduction to the circular flow of income</p> <p>Use the video below to introduce the circular flow of income.</p> <p>https://www.khanacademy.org/economics-finance-domain/macroeconomics/gdp-topic/circular-econ-gdp-tutorial/v/circular-flow-of-income-and-expenditures</p> <p>Once students have watched the video, ask them to complete either a diagram or fill in the missing words of a paragraph on the circular flow.</p> <p>Duration: the video lasts just over 8 minutes. The consolidation exercise could take another 10 minutes.</p>	<p> Click here</p>



Thinking Contextually Circular flow of income

Activities	Resources
<p>Circular flow of income put it into context</p> <p>Starter: Put students in pairs. Give them two different articles, one each. Once they've read their article they share it with their partner. The article should relate to the circular flow of income, but at this point they shouldn't have any prior knowledge of the circular flow. Shared ideas on the articles are written on the whiteboard.</p> <p>Teach the circular flow of income.</p> <p>Plenary: Students return to the articles and share how they relate to the circular flow of income.</p> <p>Feedback to the class using terms such as: leakage, injection, factor of production, reward/rent etc.</p> <p>Possible articles: http://www.theguardian.com/money/2012/oct/04/savings-rates-fall-static-base-rate http://www.theguardian.com/business/2014/jul/10/uk-trade-deficit-imports-exports</p> <p>Duration: 1 lesson</p>	<p></p> <p></p>
<p>Consolidation of circular flow of income</p> <p>Give students a worksheet with two columns. The first has a series of scenarios, the second options to circle (XIGSTM). Students should identify which injection or leakage the scenario is referring to. Differentiation can be achieved through difficulty of the scenario. For example: government increases corporation tax (very easy), fall in consumer confidence (moderate), people expect direct taxation to rise in the near future (tricky).</p> <p>To make it more interesting, you could add a third column that asks students to identify (or even sketch) the impact on aggregate demand and real GDP.</p> <p>Finally, ask them to write a summary of their findings. This will help to consolidate any patterns or factors affecting leakages/injections that they've noticed.</p> <p>Duration: 20–30 minutes – depending on how many scenarios you use.</p>	



Thinking Contextually Circular flow of income

Activities	Resources
<p>Propensity to consume, save, withdraw</p> <p>In this activity students learn how calculate the average and marginal propensities to consume, save and withdraw.</p> <p>Demonstrate the difference between the average and marginal propensities. Numerical examples with simple numbers (in units of 10) will make this easier to grasp. Model how they are calculated. To consolidate, give a worksheet with a series of scenarios of different levels of national income and consumption, and/or changes in these, and ask students to calculate the average and marginal propensities to consume.</p> <p>These types of topics are good opportunities for students to practice multiple-choice questions. So, as a plenary or starter activity for the next lesson, the students' understanding of the difference between the average and the marginal propensity and the relationship between consumption and saving could be tested. Could be conducted using mini whiteboards, students show their answer.</p> <p>Duration: 1 lesson</p>	
<p>Additional useful links:</p> <p>http://www.economicshelp.org/blog/388/economics/circular-flow-of-income-diagram/</p> <p>http://www.economicsonline.co.uk/Managing_the_economy/The_circular_flow_of_income.html</p> <p>http://www.preservearticles.com/201106188225/what-is-the-difference-between-the-average-propensity-and-marginal-propensity-to-consume.html</p>	<p> Click here</p> <p> Click here</p> <p> Click here</p>



Curriculum Content Aggregate demand

Macroeconomics: Aggregate demand and aggregate supply > Aggregate demand

- explain what is meant by aggregate demand
- explain the determinants of the components of aggregate demand
- evaluate the relationship between changes in income and consumption
- evaluate how the accelerator theory can be used to explain the level of investment (A Level only)
- explain the relationship between aggregate demand and the price level
- explain why the aggregate demand curve may shift.

A Level
only



Thinking Conceptually Aggregate demand

This topic is crucial if students are to understand the consequences of a change in government policy or of the causes and consequences of a change in the key performance indicators. This topic provides a good opportunity to reiterate the concept of the circular flow of income and the average and marginal propensities to consume, save and withdraw. Use the multiplier formula to reinforce the idea of $MPC + MPS = 1$.

Approaches to teaching the content

Initially, the delivery may be didactic to get across the main concept of aggregate demand (AD) and the negative correlation between the price level and real GDP. Although if demand and supply has already been taught, aggregating this shouldn't be too great a leap for students.

Once the idea of AD has been taught, break it down into its separate component parts. Teach the internal/domestic components of AD first (C, I and G) and then the external components (X – M).

Spend at least a lesson on each component, explaining what it is, what factors affect it and how it influences AD. You'll find you naturally bring in both monetary and fiscal policy measures, but that can help students to gain a deeper understanding of these topics and the synoptic nature of economics.

Common misconceptions or difficulties students may have

Make sure students appreciate the macroeconomic labelling for the AD curve – they can easily mix up macro and micro economic labels. They should also be sure to label **real** GDP/ national income/output and price **level**.

If students have already studied demand in microeconomics, they should be clear on the difference between a shift and a movement along the AD curve, but it is worth being aware that this can be confused.

Shifts to the right and to the left should be practiced to ensure this is clear. The accelerator theory can be problematic, particularly that the **level** of investment is influenced by the **rate of change** in national income.

Conceptual links to other areas of the specification – useful ways to approach this topic to set students up for topics later in the course

Aggregate demand links to the following areas of the specification: 'Circular flow of income', and the marginal propensity to consume when looking at the relationship between changes in income and consumption.

AD/AS analysis is a fundamental part of any macroeconomic analysis. Encourage students to include an AD/AS diagram whenever analysing or discussing a macroeconomic policy measure or a change in economic activity.

It connects to demand side policy measures directly, and supply side indirectly, through job creation initiatives.

It also connects with the macroeconomic objectives and KPIs, such as economic growth, inflation rate, employment and unemployment, and the balance of payments.



Thinking Contextually Aggregate demand

This topic can open up a lot of discussion about different economic systems and economic growth models. Comparisons could be made between the UK, which relies significantly on consumption driven growth, and a country such as China, which historically has been more reliant on international trade and export driven growth. Give students mini case studies, or even just news headlines, and ask them to think about the connection with AD. Again, a chance to remind them of the all-important causes and consequences.

Activities	Resources
<p>Economics bingo: aggregate demand This aims to introduce students to the components of AD.</p> <p>Details:</p> <ol style="list-style-type: none">1) Hand out sheets of a 'bingo grid' with the components of AD.2) Call out possible scenarios that may or may not affect one of the components.3) Students note the scenario under the component if they think it has been 'called'. The first student who thinks all the components have been covered, calls 'full house' but then has to explain why... this could be the whole group at once! <p>Duration: 10–15 minutes, but this can vary depending on how quickly you call out scenarios to fit every different component.</p>	
<p>Introduction to AD Project the headline from a news story about economic growth (this could be from any newspaper or from any country). Ask students to discuss in pairs what could have (a) caused that growth and (b) what the consequences could be for economic agents. Reveal more of the article and compare student responses to the actual cause and/or consequences. Discuss these as an introduction to the aggregate demand and its components.</p> <p>Duration: 10–15 minutes</p>	



Thinking Contextually Aggregate demand

Activities	Resources
<p>Components of AD</p> <p>This activity helps students to understand and memorise the components of aggregate demand.</p> <p>Details: Down the side of an A4 sheet of paper (in the margin), students write the AD function. This should be large enough that (a) they can write about each component and (b) this exercise covers an A4 sheet.</p> <p>Ask them to answer the following questions about each component (consumption/investment/government expenditure/net exports):</p> <ul style="list-style-type: none">• What is meant by the term?• Give an example of this in the UK economy.• What three factors influence this component?• Why would an increase in this component affect aggregate demand? <p>Duration: 1 lesson</p>	
<p>Determinants of the components of AD</p> <p>As students enter the room, give them a piece of paper that has one of the components written on it. Students then go into groups according to their allocated component. They discuss in their group what could influence that component and feedback to the whole group.</p> <p>Duration: 10 minutes, if used as a starter activity to refresh their memories from a previous lesson.</p>	
<p>Introduce the accelerator theory</p> <p>Show students two charts, one with investment (gross fixed capital formation) data and one (over the same time series) with national income data. Ask them to identify a relationship between the two. Can they recognise similarities in the data? Why might that pattern occur?</p> <p>http://www.tradingeconomics.com/united-kingdom/gross-fixed-capital-formation</p> <p>http://www.tradingeconomics.com/united-kingdom/gdp-growth</p> <p>Duration: 10 minutes, as a starter activity.</p>	<p>A Level only</p> <p>▶ Click here</p> <p>▶ Click here</p>



Thinking Contextually Aggregate demand

Activities	Resources
<p>Evaluation of the accelerator theory</p> <p>The aim is evaluate how the accelerator theory can be used to explain the level of investment. This may be didactic but sometimes concepts are best taught with a clear teacher explanation first. To help you, there is a very useful section in <i>A2 OCR Economics</i> by Bamford/Grant/Walton published by Heinemann, pages 211 and 212 or alternatively the new <i>OCR A Level Economics</i> by Peter Smith, published by Hodder Education, page 241.</p> <p>Duration: 1 lesson</p>	<p>A Level only</p>
<p>Recap</p> <p>To revise how the components of AD affect the AD curve, find images and/or headlines that relate to the components of aggregate demand (for example, an increase in trade or January sales/black Friday/cyber Monday). Place these in a hat. Students pick these from the hat and have to describe how their image/headline will affect aggregate demand.</p> <p>Record these on the whiteboard to get an overall picture of how various scenarios affect AD.</p> <p>Students either take a picture or record in their notes.</p> <p>Duration: Depending on the number of images/headlines used, this can be a plenary or an entire lesson.</p>	



Curriculum Content Aggregate supply

Macroeconomics: Aggregate demand and aggregate supply > Aggregate supply

- explain what is meant by aggregate supply
- distinguish between the Keynesian and neo-classical approaches to aggregate supply (A Level only)
- explain the relationship between aggregate supply and the price level in both the short run and the long run (A Level only)
- explain why the aggregate supply curve may shift in both the short run and the long run.

A Level
only



Thinking Conceptually Aggregate supply

The aggregate supply model demonstrates the relationship between the overall price level of a country and the quantity of goods and services produced by the suppliers of that country. In the short run, aggregate supply can be affected by factor prices and levels of tax and subsidies. In the long run, aggregate supply is determined by the availability and efficiency of factors of production and supply side policies.

Approaches to teaching the content

It is best to teach aggregate supply after aggregate demand. This builds students up to understanding the macroeconomic equilibrium.

It can be helpful to teach the neo-classical and the Keynesian curves side by side so that comparisons can be more clearly drawn.

If this topic is taught after the production possibility curve, students are more able to appreciate the Keynesian curve as it recognises spare capacity.

Common misconceptions or difficulties students may have

Students can find it hard to recognise the difference between the different approaches to the aggregate supply diagram. They may also be unsure when to use the short run aggregate supply curve (SRAS). It could be easier to use the Keynesian approach to show a change in SRAS; either shifting the elastic section upwards for a decrease in aggregate supply or downwards for an increase in aggregate supply.

Conceptual links to other areas of the specification – useful ways to approach this topic to set students up for topics later in the course

Aggregate supply links to the following areas of the specification: the production possibility frontier, costs of production and the elasticity of supply; 'Economic growth', 'Inflation'; 'Unemployment'; 'Aggregate demand'; 'The economic cycle' (A Level only); 'Fiscal policy'; 'Supply side policy'; 'Labour market' (A Level only).

A Level
only



Thinking Contextually Aggregate supply

Aggregate supply (AS) encapsulates both microeconomics and macroeconomics, this topic provides a great opportunity to highlight the synoptic nature of economics and model to students how they can write synoptically. This is particularly important for the 'Themes in Economics' exam paper.

As always, use real-world examples to put the theory in context and to assess student understanding of the topic. These can be national or international; global comparisons are helpful to deepen understanding.

Activities	Resources
<p>Chain of reasoning: aggregate supply</p> <p>The aim is to develop reasoning skills in relation to factors affecting aggregate supply.</p> <p>Details:</p> <ol style="list-style-type: none">1) Give groups a scenario each with the first step of a factor affecting AS, eg an increase in the cost of raw materials.2) They now have to write links on mini whiteboards that lead to the final effect on AS.3) They also draw a diagram to show the effect. These links and the diagram can then be put up on the board and presented to the rest of the class. <p>Extension – display an incomplete chain of reasoning on the whiteboard. Students need to explain why it doesn't make sense, what is missing. Emphasise the importance of their chain of reasoning, including all the necessary links for full analysis.</p> <p>Duration: 15+ minutes, depending on the number of groups and whether notes are taken.</p>	
<p>Introduction of the Keynesian approach to AS</p> <p>Display the production possibility frontier (PPF) and the Keynesian curve on the board, label the PPF at various points inside, on and outside the curve. Ask students to indicate where the corresponding points would be on the aggregate supply curve. Finally, ask them how could the point outside the PPF be reached, and how would that be modelled using the Keynesian aggregate supply curve.</p> <p>Duration: 15–20 minutes</p>	<p>A Level only</p>



Thinking Contextually Aggregate supply

Activities	Resources
<p>Extension of Keynesian approach to AS</p> <p>Label four corners of the room. Label the Keynesian aggregate supply curve with four points, allowing for varying degrees of spare capacity. Students should move to the corner of the room with the label that represents where they think the UK economy is currently. Ask them why they chose that label/corner. They need to explain their answer referring to key performance indicators. Pre-warn them of this before they make their choice.</p> <p>You could extend this by asking students in other groups to say why they didn't choose a particular corner, which could facilitate discussion/debate and highlight how hard it can be to discern economic performance.</p> <p>Duration: 20 minutes</p>	
<p>AS shifts</p> <p>This activity can help explain why the aggregate supply curve may shift both in the short run and in the long run.</p> <p>Details: Produce a table with three columns. In the left-hand column put real-world scenarios; for example, rise in corporation tax, fall in oil prices, rise in government expenditure on education. In the middle column, students should state whether the scenario would affect short run or long run aggregate supply, and in the final column whether the aggregate supply curve would shift left or right. Underneath the table, put a box for students to summarise their findings.</p> <p>Duration: 30 minutes</p>	
<p>Link between labour productivity and aggregate supply</p> <p>Details: Provide time series data on labour productivity in the UK. Ask students to (a) describe the trend in the data and (b) explain how over time the changes will affect aggregate supply. This exercise could be used for any source of data that will influence aggregate supply, for example oil prices.</p> <p>Useful articles:</p> <p>http://www.bbc.co.uk/news/business-30413565</p> <p>http://www.bbc.co.uk/news/business-30224320</p> <p>http://www.thesundaytimes.co.uk/sto/business/Economy/article1492679.ece</p> <p>http://www.economicsuk.com/blog/002067.html#more</p> <p>Duration: 10 minutes</p>	<p>▶ Click here</p> <p>▶ Click here</p> <p>▶ Click here</p> <p>▶ Click here</p>



Curriculum Content Aggregate demand and supply

Macroeconomics: Aggregate demand and aggregate supply > Aggregate demand and supply

- complete, understand and interpret AD/AS diagrams.



Thinking Conceptually Aggregate demand and supply

This brings together the concepts of aggregate demand and supply to prepare for the study of the macroeconomics equilibrium.

Approaches to teaching the content

This section can be delivered both in the classroom and through independent research. Students could be given case studies to read and then analyse the consequences, using an AD/AS model. Or, they could research their own case and write their analysis using the AD/AS model, which could then be used in class, perhaps through peer marking.

In groups, students could interpret AD/AS diagrams.

This is a great opportunity to highlight the importance of analysis through cause and consequence.

Common misconceptions or difficulties students may have

Students may forget to label the AD/AS diagram correctly, using microeconomic labelling rather than macroeconomic.

They might confuse shift directions.

They can muddle when AD shifts to the left or when it is just a smaller shift to the right.

They can also find it difficult to appreciate why the long run aggregate supply curve shifts inwards.

Conceptual links to other areas of the specification – useful ways to approach this topic to set students up for topics later in the course

The AD/AS model links with the majority of the A Level macroeconomic specification. It is a very useful tool to aid analysis of the causes and consequences of macroeconomic policy measures or external demand or supply side shocks.



Thinking Contextually Aggregate demand and supply

As mentioned above, the AD/AS model is a great opportunity to discuss the causes and consequences of changes in economic policy and events. Therefore, offer lots of opportunity for students to use it, either through short headlines, articles, exam questions (SAMs and past exam papers may be useful here), radio programmes or news clips on the BBC website, FT video clips or YouTube.

Activities	Resources
<p>AD/AS diagrams The aim is to practice shifting the AD/AS diagram and interpret the impact on both real GDP and the price level.</p> <p>In small groups, ask students to read a series of headlines, or brief abstracts of news articles, and draw the AD/AS diagram with the relevant shift. They need to explain why that shift has happened (cause) and the consequences for real GDP and the price level, as well as potential consequences for macroeconomic performance.</p> <p>Duration: 20–40 minutes, depending on how many articles/headlines are used.</p>	
<p>Practice interpreting AD/AS diagrams Give students a series of AD/AS diagrams that are dynamic (show a change in AD and/or AS) and ask them to explain the possible cause and consequence of this change.</p> <p>Duration: 20–40 minutes, depending on how many diagrams are used.</p>	
<p>Plenary for AD/AS diagram interpretation Quick fire round – call out a policy measure and students have to raise the relevant hand to indicate which direction the AD curve would shift.</p> <p>Duration: 5 minutes</p>	
<p>Last person standing This can also be used for a plenary for AD/AS diagram interpretation.</p> <p>Students stand in a circle, one of them has a ball. The ball is thrown to another student, while at the same time calling out AD or AS and shift left or right. The recipient must correctly identify a policy that would have caused this shift in either AD or AS. If they're incorrect they sit down. Continues until there is only one person left standing.</p> <p>Duration: 10 minutes, but depends on the size of the class.</p>	



Thinking Contextually Aggregate demand and supply

Activities	Resources
<p>Masters of Money</p> <p>The aim is to evaluate the Keynesian, neo-classical and Austrian schools of thought on how the macroeconomy works.</p> <p>Details: This overlaps with other areas of the specification but if you haven't covered this yet, there are three great videos entitled: Masters of Money.</p> <p>Stephanie Flanders explains the thinking of John Keynes, Fredrick Hayek and Karl Marx. Students could watch one or more of these videos in preparation for a lesson or as a prep and write up a report that evaluates the difference between neo-classical and Keynesian approaches.</p> <p>Keynes: https://www.youtube.com/watch?v=hEYdS5sUR90</p> <p>Hayek: http://www.dailymotion.com/video/x1jun23_masters-of-money-part-2-friedrich-hayek_tech</p> <p>Marx: http://www.dailymotion.com/video/x1jun42_masters-of-money-part-3-karl-marx_tech</p> <p>Duration: 1 hour each</p>	<p>A Level only</p> <p>▶ Click here</p> <p>▶ Click here</p> <p>▶ Click here</p>
<p>Keynesian vs neo-classical approaches</p> <p>There is a brief, four-minute video on YouTube that explains the difference between the two approaches on how the macroeconomy works.</p> <p>Keynesian and Neo-Classical Theories: https://www.youtube.com/watch?v=q0kSgqt24gA</p> <p>Ask students to watch the video and summarise the difference in one sentence.</p> <p>Follow this up with either a more detailed explanation or a handout that gives students the evaluation points.</p> <p>Duration: 10 minutes</p>	<p>A Level only</p> <p>▶ Click here</p>



Curriculum Content Macroeconomic equilibrium

Macroeconomics: Aggregate demand and aggregate supply > Macroeconomic equilibrium

- explain what is meant by equilibrium in the macroeconomy and how it might change
- evaluate, using an AD/AS diagram, how changes in aggregate demand and aggregate supply may affect macroeconomic performance, including economic growth, unemployment and inflation
- evaluate the Keynesian, neo-classical and Austrian schools of thought on how the macroeconomy operates.



Thinking Conceptually Macroeconomic equilibrium

A Level
only

The macroeconomic equilibrium is a state where aggregate supply equals aggregate demand. It is the point on the AD/AS diagram where the demand and supply curves intersect. When the aggregate supply and aggregate demand shift, so does the point of equilibrium.

The final element of this topic, the different schools of thought, is an opportunity to provide an overview of the different approaches to macroeconomics. Students are not expected to provide a dissertation but be able to compare the schools of thought, and recognise some of the drawbacks in their explanation of how the macroeconomy operates.

Approaches to teaching the content

There are a number of videos and YouTube clips to help deliver the different schools of thought.

Depending on when this section is taught, it could be related to either the autumn statement or the government budget.

This can be quite an interactive and student-led topic as they have the tools of AD and AS and this topic asks them to apply them when evaluating how changes in AD/AS affect macroeconomic performance.

Common misconceptions or difficulties students may have

Students may find the different schools of thought challenging.

Hopefully, students will understand the concept of an equilibrium from their microeconomic studies. However, they may find it difficult to appreciate how the idea of an equilibrium relates to the neo-classical and Keynesian aggregate supply diagrams.

Conceptual links to other areas of the specification – useful ways to approach this topic to set students up for topics later in the course

Links to other areas of the course are: 'Aggregate demand'; 'Aggregate supply'; 'Economic growth'; 'Inflation'; 'Unemployment and employment'; 'Balance of payments'; 'Phillips Curve' (A Level only); 'Fiscal policy'; 'Monetary policy'; 'Supply side policy'; 'Policy conflicts'; 'International trade'; 'Globalisation' (A Level only); 'Exchange rates'.

A Level
only



Thinking Contextually Macroeconomic equilibrium

These activities can help students to understand the causes and effects of changes in AD and AS.

Activities	Resources
<p>Think tank: unemployment, inflation and economic growth</p> <p>The aim is to develop the effects of changes in the macroeconomic equilibrium on unemployment, inflation and economic growth.</p> <p>Details:</p> <ol style="list-style-type: none">1) Split the class into three sets of government advisors: specialising in unemployment, inflation or economic growth.2) Have a list of scenarios that would result in a shift of either AD or AS.3) The groups have to first draw how this will affect the AD/AS diagram.4) They then have to decide what effect it will have on their area.5) After 5 minutes, they have to report back to the class.6) Ideally, they should designate someone to record their answers, so that at the end of the lesson these can all be copied into a booklet to give out to all the students. <p>Duration: 15+ minutes, depending on the number of scenarios given and whether written notes are made.</p>	



Thinking Contextually Macroeconomic equilibrium

Activities	Resources
<p>Schools of thought I (A Level only)</p> <p>Ask students to watch one or some of the YouTube videos below. They should then write a newspaper report or blog on the difference between the three schools of thought. The first link is from the London School of Economics and Political Science (LSE) and is a debate between the Keynesian and the Austrian school of thought, the latter represented by Fredrick Hayek. This video lasts for 1 hour 29 minutes.</p> <p>https://www.youtube.com/watch?v=d0nERTFo-Sk</p> <p>https://www.youtube.com/watch?v=GTQnarzmTOc</p> <p>https://www.youtube.com/watch?v=PLBOKq4On7k</p> <p>https://www.youtube.com/watch?v=15idnfuyqXs</p> <p>https://www.youtube.com/watch?v=Oqhe4K1Jz-8</p> <p>https://www.youtube.com/watch?v=y8l47ilD0ll</p> <p>https://www.youtube.com/watch?v=gU8rQnKN_uo</p> <p>Duration: Depends on the number of videos watched and whether you use class time or homework time.</p>	<p>A Level only</p> <p>▶ Click here</p>



Thinking Contextually Macroeconomic equilibrium

Activities	Resources
<p>Schools of thought II (A Level only) Ask students to read the following articles from the <i>Spectator</i> magazine and write a report describing the different schools of thought.</p> <p>http://www.spectator.co.uk/features/3043216/i-will-always-defend-a-big-spender-like-jm-keynes/</p> <p>http://www.spectator.co.uk/features/2539381/there-is-nothing-magic-about-this-keynesian-fad/</p> <p>http://www.spectator.co.uk/the-week/2327181/keynesianism-isnt-the-answer/</p> <p>Duration: Depends on the number of articles read, and whether you use class time or homework time.</p>	<p>A Level only</p> <p>▶ Click here</p> <p>▶ Click here</p> <p>▶ Click here</p>
<p>Plenary on schools of thought Students carry out independent research on the Keynesian, neo-classical and Austrian schools of thought. Give students one to do in small groups or pairs, and then present their findings to their peers. Give students a check list of what to look for, such as attitude towards government expenditure, should the government intervene or should markets be left free, what does the approach say about the aggregate supply curve and the relationship between the money supply and inflation, is it a direct or indirect relationship, i.e. what causes inflation?</p> <p>Duration: 30 minutes</p>	



Curriculum Content The Phillips Curve

A Level
only

Macroeconomics: Aggregate demand and aggregate supply > The Phillips Curve

- explain what is meant by the Phillips Curve
- explain what is meant by the natural rate of unemployment
- explain why the natural rate of unemployment can be referred to as the non-accelerating inflation rate of unemployment (NAIRU)
- explain why the Phillips Curve may be vertical in the long run, using theories such as the adaptive-expectations hypothesis
- evaluate whether the Phillips Curve accurately explains the relationship between inflation (money wages) and changes in unemployment
- evaluate the usefulness of the Phillips Curve for macroeconomic policymakers.



Thinking Conceptually The Phillips Curve

The Phillips Curve shows the relationship between unemployment and inflation in an economy. Since its 'discovery' by British economist AW Phillips, it has become an essential but also questioned tool to analyse macroeconomic policy. Studying the Phillips Curve provides another opportunity to combine microeconomics and macroeconomics to emphasise the synoptic nature of economics and prepare students for the 'Themes in Economics' exam paper.

Approaches to teaching the content

The initial teaching of the Phillips Curve provides an opportunity for discussion around expectations, and how these influence both people's behaviour with regards to wages and how the natural rate of unemployment (NRU) can be reduced.

It is worth flagging up that the NRU isn't natural, in that unemployment is meant to be at that rate, but that it is the equilibrium rate and if people's expectations could be changed then perhaps the NRU could be lower. The NRU is also known as the non-accelerating inflation rate of unemployment (NAIRU).

The initial teaching of the Phillips Curve may be relatively didactic, through teacher-led delivery of how Phillips first identified the relationship, how it was found to no longer hold true and how it was augmented to incorporate the adaptive expectations hypothesis.

Discussion is more likely when critiquing the model and when assessing how the NRU could be reduced.

Common misconceptions or difficulties students may have

Students can find the expectations augmented Phillips Curve initially challenging because they haven't worked in an environment in which they would consider the nominal or real wage rate, or haven't opted for voluntary unemployment. It may be quite an abstract concept.

Conceptual links to other areas of the specification – useful ways to approach this topic to set students up for topics later in the course

This topic obviously links with the topics of: 'Inflation'; 'Unemployment' and 'Labour market'. It also has links with 'Economic growth', AD/AS, 'Macroeconomic equilibrium', and 'Supply side policy'.



Thinking Contextually The Phillips Curve

The Phillips Curve can be taught in the context of labour markets, and the cause and consequence of a rise in wage rates. There could also be a discussion on how economic agents in the labour market can influence the natural rate of unemployment. For example, there is an opportunity to discuss how the power of trade unions can influence expectations, and also how government attempts to increase the productive potential of any economy and reduce the NRU through interventionist, supply-side policies.

Of course international comparisons are always interesting. If you can access the data (a suitable source could be the World Bank (<http://data.worldbank.org/country>), CIA World Factbook (<https://www.cia.gov/library/publications/the-world-factbook/>) or trading economics (www.tradingeconomics.com). Ask students to look into whether the relationship holds in any countries. This could open up discussion around different economic systems.

It is also a good opportunity to remind students that economics is a social science and that models only represent human behaviour as we understand it so far, models can become invalid through economic shocks, as was seen in the aftermath of the 2008 financial crisis.

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Thinking Contextually The Phillips Curve

Activities	Resources
<p>How long is a piece of string? The aim is to introduce the reasoning behind the Phillips Curve.</p> <p>Details:</p> <ol style="list-style-type: none">1) This activity uses a combination of visual stimulus and storyboarding.2) Give each student a length of red string and a graph with numbered axes.3) Students label the axes 'Inflation (%)' and 'Unemployment (%)'.4) Explain the graph from a suitable starting point, e.g. inflation increases from 0% to 1%, and get students to draw this segment of the curve.5) Keep describing the curve, segment by segment. Then ask students to check their neighbour's curve and compare what they have drawn.6) If they now feel confident, they should glue the piece of string over the top of their sketched segments.7) Display a correct diagram on the board and review the stages for any students who are uncertain.8) The different stages can either be written down by students, or could already be displayed on the graph. <p>Duration: 15+min</p>	
<p>Introduction to Bill Phillips Details: show students the Phillips Curve to introduce the economist behind the idea. Or, show the LSE lecture by Tim Harford on Bill Phillips (second link below).</p> <p>https://www.youtube.com/watch?v=rVOhYROKeu4</p> <p>https://www.youtube.com/watch?v=k7f4L1nkHPI</p> <p>Duration: Depends on the clip, the first is under four minutes, the second about 1 hour long.</p>	<p> Click here</p> <p> Click here</p>



Thinking Contextually The Phillips Curve

Activities	Resources
<p>The natural rate of unemployment</p> <p>Put the following statement on the board for students to consider as they enter the classroom: 'There will always be unemployment!'</p> <p>Students vote true or false. They must be able to justify their position.</p> <p>You may want to quickly revise the causes of unemployment prior to receiving their ideas on this proposition, just to gauge how much they recall about unemployment.</p> <p>The hope is that this facilitates discussion on the natural rate of unemployment, and that in a market-based economic system there will always be some unemployment.</p> <p>Duration: Approximately 15 minutes, but depends on the length of the subsequent discussion.</p>	
<p>Play with the Phillips Curve</p> <p>This activity can help students understand why the Phillips Curve may be vertical in the long run.</p> <p>Give each student a ball of Play-Doh (or similar modelling putty). Display the Phillips Curve axes on the whiteboard and ask students to draw the axes on a piece of A4 paper. Using their Play-Doh, students model the long run Phillips Curve as you demonstrate it on the board. Once you've fully explained it, and their models are correct, students can draw the diagram in their notes.</p> <p>Provide students with a written explanation of the model, which they must summarise into a couple of sentences to consolidate their understanding.</p> <p>Test students the following lesson on both the diagram and the explanation.</p> <p>Duration: 20 minutes</p>	
<p>A little test</p> <p>This is to test the students' understanding of the relationship between inflation and changes in money wages</p> <p>Details: Display an incorrect Phillips Curve on the board. Students must identify what is incorrect and how to correct it.</p> <p>Duration: 5 minutes</p>	



Thinking Contextually The Phillips Curve

Activities	Resources
<p>How useful is the Phillips Curve?</p> <p>The aim is to explore the relationship between inflation and unemployment, and to evaluate the usefulness of the Phillips Curve for macroeconomic policymakers.</p> <p>Details: Using time series data plotting the relationship between inflation and unemployment, ask students to identify periods of time that follow the Phillips Curve relationship, and periods when the relationship doesn't hold. Ask students to research economic events for the latter time periods to discover why the relationship breaks down.</p> <p>This can generate discussion around economic shocks and how different economic approaches came about.</p> <p>Duration: 1 hour</p>	



Curriculum Content The economic cycle

A Level
only

Macroeconomics: Aggregate demand and aggregate supply > The economic cycle

- explain the different stages of the economic cycle
- distinguish between actual and trend rates of growth
- evaluate the factors which determine the trend rate of economic growth
- explain what is meant by the national income multiplier
- explain the factors which determine the size of the national income multiplier
- calculate the size of the national income multiplier
- explain the role and purpose of the multiplier
- explain the concept of the multiplier using the circular flow model
- explain the impact of the multiplier in terms of shifts in the aggregate demand curve
- explain the economic cycle using the multiplier-accelerator model
- explain the concept of output gaps using a diagram of the economic cycle, an AD/AS diagram and a PPF/C diagram
- evaluate the causes of an output gap
- evaluate the consequences of an output gap.



Thinking Conceptually The economic cycle

The economic cycle, also referred to as the 'trade cycle' or 'business cycle', describes the cyclical nature of economic growth, ranging from periods of rapid growth followed by slower growth or in some cases a recession. Some economic cycles are more volatile while others are more stable. The state of an economy within a cycle is determined by, and influences, future economic growth, inflation, employment, interest rates and stock market values. The economic cycle could be used as a centerpiece from which you ask students to annotate how the various stages will affect key performance indicators (KPIs) as well as AD and AS and the response that policymakers may have in terms of monetary and fiscal tools.

Approaches to teaching the content

The economic cycle won't be a totally alien concept to students by this stage of the course. You're more than likely to have mentioned it in discussions about aggregate demand and aggregate supply – even if not in the exact words students will be familiar with – and the idea of recession and short and long run economic growth.

This is a great opportunity to pull everything together that you've covered so far as a summation of this topic area: aggregate demand and aggregate supply.

Common misconceptions or difficulties students may have

Students can confuse an economic slowdown with a recession.

Output gaps can be an area to concentrate on; particularly how inflationary pressure can arise when the actual rate of growth is above the trend rate.

The multiplier formula can appear complicated initially but simple numerical examples can clarify things.

Explanation of the economic cycle using the multiplier-accelerator model could be found hard by some.

Conceptual links to other areas of the specification – useful ways to approach this topic to set students up for topics later in the course.

The economic cycle links to a number of topics, particularly the 'Circular flow of income'; AD/AS – components of AD: MPC/MPS; study of the accelerator (A Level only) and trade balance. It is also linked to the macroeconomic key performance indicators: economic growth, inflation unemployment, balance of payments and macroeconomic policy measures – monetary, fiscal and supply side – as well as 'Globalisation' (A Level only) and 'International trade'.

**A Level
only**



Thinking Contextually The economic cycle

The economic cycle can be used to draw international comparisons of the varying performances of economies. As the aftermath of the 2008 financial crisis is still being felt, and countries such as Japan and various European states struggle to recover, a lot of discussion could be had as to why this stage of the economic cycle has persisted, compared to the relatively strong performance of countries such as China or Australia, and the quicker recovery of the USA or even the UK.

The efficacy of policy measures can be discussed; was quantitative easing effective in stimulating an economic recovery, should more fiscal policy measures have been used, should austerity measures be continued or have they hampered the economic recovery of some countries? This gives students the chance to incorporate their study of various schools of thought (Keynesian, neo-classical or Austrian).

Activities	Resources
<p>Economic cycle corners</p> <p>The aim is to introduce students to the stages of the economic cycle and start to familiarise them with a graph of real data.</p> <p>Details:</p> <ol style="list-style-type: none">1) Give students a worksheet with a simplified, colour graph showing 'boom', 'expansion', 'recession' and 'depression'.2) Put up coloured signs in each corner of the room with these words.3) Using World Bank GDP growth data, select different countries.4) Specify a year and give the group 10–30 seconds to get to the right corner. <p>Duration: 10 min – this is an active and physical illustration and needs time to be carefully managed.</p>	
<p>Trend rate of economic growth</p> <p>Here students learn how to evaluate the factors that determine the trend rate of economic growth.</p> <p>Details: Give students various headlines that describe causes of economic growth. They then categorise these according to whether short term (actual) economic growth or long term (potential) economic growth would be affected directly.</p> <p>Next, students must order these factors under the trend rate of growth, from which would be the most influential to which would be the least. Ask them to record a justification for their decision.</p> <p>Duration: 20 minutes</p>	



Thinking Contextually The economic cycle

Activities	Resources
<p>Explain the national income multiplier</p> <p>At this stage, you may already have covered the national income multiplier but, if not, a simple numerical example can be a very effective method to illustrate it.</p> <p>Give students the following information and ask them to (a) calculate the national income multiplier and (b) assess what the impact would be on AD and real GDP if the government decided to increase expenditure by £100bn.</p> <p>Marginal propensity to tax = 0.2</p> <p>Marginal propensity to save = 0.1</p> <p>Marginal propensity to import = 0.2</p> <p>Duration: 30 minutes</p>	
<p>Multiplier and accelerator model</p> <p>The aim is to explain the economic cycle using the multiplier and accelerator model.</p> <p>Ask students to read the relevant pages in the new textbook <i>OCR A Level Economics</i> by Peter Smith, published by Hodder Education and summarise it in their own words. This could be peer assessed.</p> <p>Duration: 30 minutes</p>	



Thinking Contextually The economic cycle

Activities	Resources
<p>Output gap This is a flipped lesson on the concept of the output gap, its causes and consequences.</p> <p>Tell students that their objective for the following lesson is to be able to explain, illustrate (using the PPF, an AD/AS diagram and the economic cycle) and evaluate the concept of an output gap.</p> <p>Provide them with the following weblinks:</p> <p>http://www.imf.org/external/pubs/ft/fandd/2013/09/basics.htm</p> <p>http://www.economicshelp.org/blog/glossary/output-gap/</p> <p>http://www.bbc.co.uk/news/uk-politics-26629587</p> <p>http://www.economist.com/news/economic-and-financial-indicators/21594309-output-gaps-developing-countries</p> <p>http://ftalphaville.ft.com/tag/output-gap/</p> <p>http://www.bankofengland.co.uk/publications/Documents/inflationreport/2014/ir14nov.pdf – students only need to read pages 5–6 and section 3, pages 26–33.</p> <p>Duration: The subsequent discussion could last for an entire lesson, if you explore all aspects of the output gap.</p>	<p> Click here</p> <p> Click here</p> <p> Click here</p> <p> Click here</p> <p> Click here</p> <p> Click here</p>
<p>Revision of the economic cycle</p> <p>Display the economic cycle diagram on the board. Students have to describe the consequence of each stage on the following macroeconomic variables: GDP, inflation, unemployment, consumption, relative wages, private sector investment, confidence, balance of payments current account (and the financial account if they're able to do so).</p> <p>Alternatively, put students in groups, give them an A3 sheet of paper and ask them to draw the economic cycle. Prior to the lesson, type up economic variables (for example, employment, inflation, confidence, investment, negative/positive output gap) and words, such as high, low, falling, increasing etc. Print out as many copies as there are groups in the class. Cut out the words and put them into an envelope for each group. Once they've drawn the economic cycle, they use the words from their envelope and stick them on their economic cycle, according to the relevant stage, using Blu-Tack (or a similar adhesive).</p> <p>Duration: 1 lesson each</p>	





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