

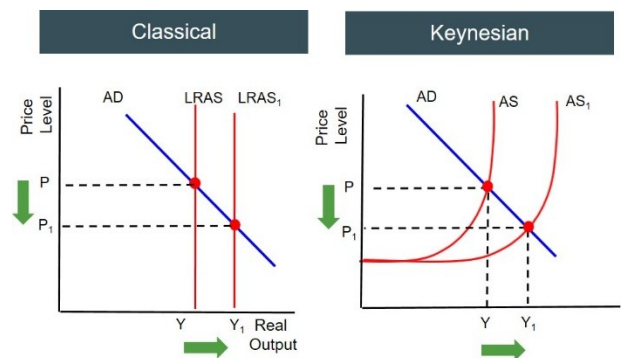
A level Economics

The UK Economy- Performance and Policies

Edexcel

Course companion **6** 2018-19

Classical Supply Supply-side policies



NAME:

TEACHER:

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2.3.2 Short-run Aggregate supply (Classical)

a) Factors influencing short-run aggregate supply:

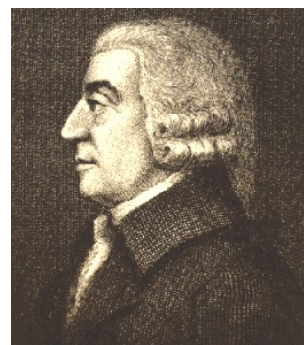
- changes in costs of raw materials and energy
- changes in exchange rates
- changes in tax rates

Long-run aggregate supply (LRAS)

Economists have different views on the shape of the AS curve and the adjustment of the economy to equilibrium. Classical economists make a distinction between the AS curve in the short run and the long run. The Keynesian model does not distinguish between the short run and the long run.

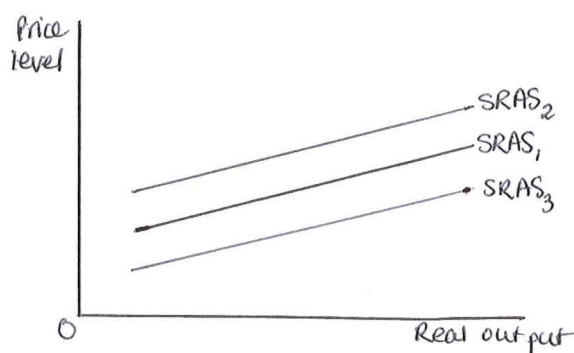
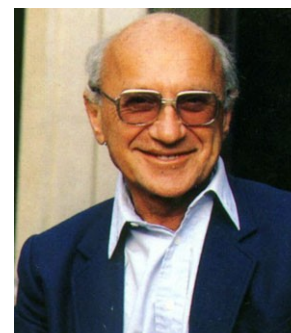
The Classical view

The classical economists were free market economists who believed that markets generally work well and that government intervention is usually harmful. Adam Smith (1723-90) is considered to be the founder of the classical school. Smith was followed by David Ricardo (1772-1823) and Robert Malthus (1766-1834) who further developed the body of theory of classical economics. The Neo-classical school arose in the 1870's with the work of Jevons, Marshall and Walras. Classical economics was revived in the 20th Century by Friedrich Hayek (1899-1992) and Milton Friedman (1912-2006). Hayek and Friedman were contemporaries of Keynes but disagreed with him over the workings of the economy.



The classical short run AS curve

In the short run it is assumed that wage rates and other input costs remain fixed. Therefore firms are able to respond to a rise in AD by producing more with only a slight rise in prices. The additional output is achieved with no significant rise in costs other than paying more overtime for example. This means they do not need to raise their prices by much. This makes the AS curve upward sloping but relatively elastic.



SRAS₁ shows aggregate supply at current wage rates and cost levels. A rise in wage rates or other input costs would shift the aggregate supply curve to SRAS₂ showing a particular level of output associated with higher prices. A fall in costs would shift it to SRAS₃ showing a particular level of output associated with lower prices.

NOTE: The Short Run AS (SRAS) curve shows changes in supply due to short-term cost factors.

Factors influencing AS in the short run



1. Changes in costs of raw materials and energy. Draw a diagram to show if **AS shifts left or right.**

(a) Wage costs rise.

(b) Oil prices fall.

2. Changes in exchange rates:

UK firms import many of the raw materials used in production. If the exchange rate value of the pound falls, what impact will this have on the **cost of imported raw materials**? Draw a diagram to show if **AS shifts left or right.**

3. Changes in tax rates

The government increases business rates (a tax paid by businesses based on the value of their business premises). Draw a diagram to show if **AS shifts left or right.**

Exercise: How do you think the following will affect the classical SRAS curve?

1. Wage rates – higher wages means higher costs for firms who may then raise prices.
SRAS will _____
2. Raw material prices – a fall in raw material prices means lower costs so SRAS will

3. Taxation – a rise in industry taxes will increase firms' costs so SRAS will

4. Exchange rates – a fall in the exchange rate will increase the cost of imported materials so SRAS will _____
5. Productivity – higher productivity will mean higher output per worker so reducing costs so SRAS will _____

2.3.3 Long-run AS (Classical)

a) Different shapes of the long-run AS curve:

- Keynesian
- Classical

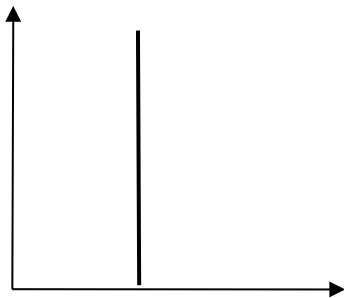
b) Factors influencing long-run AS:

- technological advances
- changes in relative productivity
- changes in education & skills
- changes in government regulations
- demographic changes & migration
- competition policy

The classical long run AS curve

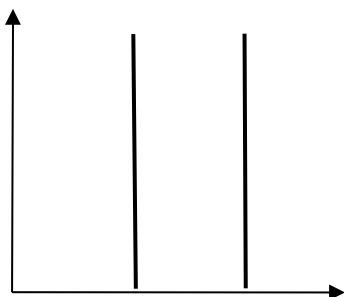
The classical LRAS curve is vertical, showing how much can be produced with a given amount of factor inputs. In other words it shows the potential level of output when all resources are fully employed (on PPF), assuming no underused resources. This is based on the classical assumption that all product and factor markets operate efficiently.

This includes the labour market and implies the labour market will 'clear' with the demand for labour is equal to the supply of labour. This means the economy will always be in equilibrium, in the long run, at full capacity, therefore there will be no output gap in the long run (on PPF) and no unemployment.



Factors influencing AS in the long run

In the long-run, the AS curve will shift due to changes in the **quantity** and **quality** of **factors of production**, which lead to long-run changes in production costs or productivity. The following would shift LRAS right:

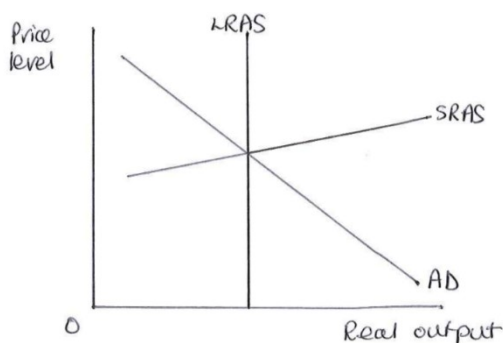


- **Technological advances:** New technology leads to more efficient machines, vehicles, computers, or information systems
- **Improved productivity:** Labour productivity (output per worker) improves e.g. improved working practices, improved skills, healthier work force, investment in more/better capital equipment.
- **Improved education & skills**
- **Changes in government regulations:** a reduction in business regulation, or 'red tape', e.g. reduced planning restrictions make it cheaper for a business to buy land for a new factory.

- **Immigration:** increasing the supply of labour and pushing down wages, skilled migrants also raising productivity.
- **Competition policy:** government policies to increase competition in markets, which might encourage firms to operate more efficiently in order to compete with rivals.

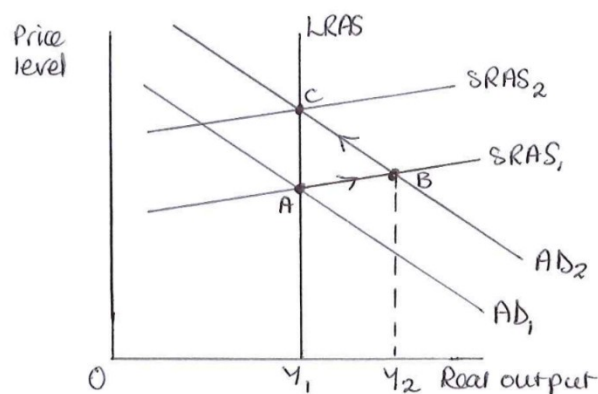
Equilibrium level of national income – Classical model

LR equilibrium occurs where the LRAS curve intersects with the AD curve. This price level is associated with a particular SRAS curve which passes through the point where $AD = LRAS$



Impact of a rise in AD

In the short run this will lead to a rise in output and the price level as the economy moves from point A to point B along $SRAS_1$.



This rise in output is only possible in the short run with firms offering overtime to their workers and over-working their capital. Firms find it hard to recruit new labour so will need to offer higher wages. Raw material costs will also rise.

This increase in production costs causes SRAS to shift from $SRAS_1$ to $SRAS_2$ and the economy will move from B to C with real output returning to Y_1 .

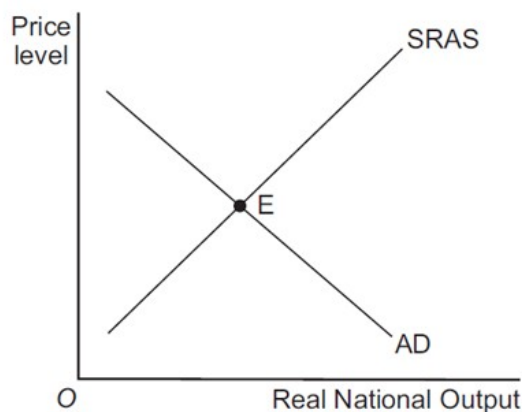
In the short run there is a positive output ($Y_2 - Y_1$) gap as the economy moves from A to B but this does not persist as the economy returns to LR equilibrium [NB: reverse analysis applies to fall in AD]

Multiple choice questions on AS/AD



(1)

The diagram below shows the aggregate demand (AD) and short-run aggregate supply (SRAS) curves for an economy. The economy is in equilibrium at point E.

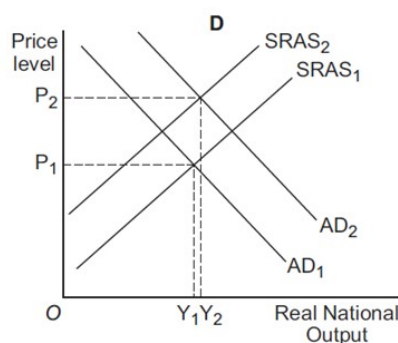
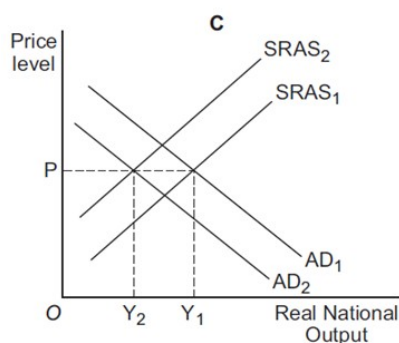
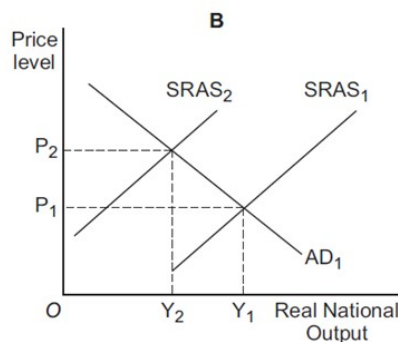
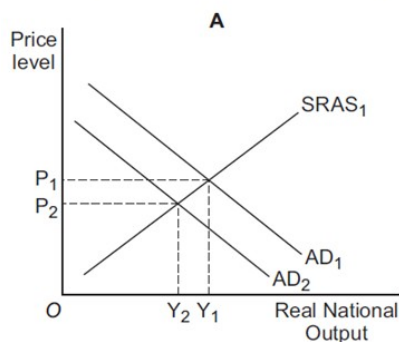


Which one of the following would be likely to lead to a new equilibrium position, with a fall in the price level?

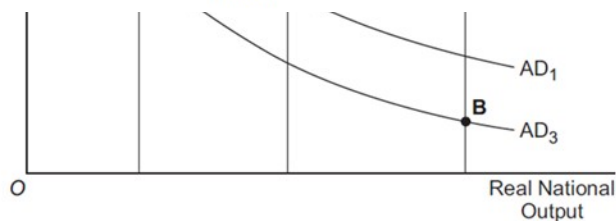
- A A fall in exports
- B An increase in government spending
- C A fall in productivity
- D An increase in wage rates

(2)

In the diagrams below, AD_1 and $SRAS_1$ represent the initial aggregate demand and short-run aggregate supply curves for an economy. Which one of the following diagrams, A, B, C or D, illustrates the most likely effects of a simultaneous increase in oil prices and an increase in savings?



(3)

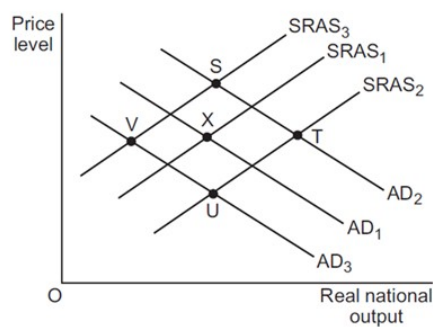


What would be the most likely new long-run equilibrium position, A, B, C or D, following government policy to lower the exchange rate and to improve the quality of the labour force through retraining programmes?

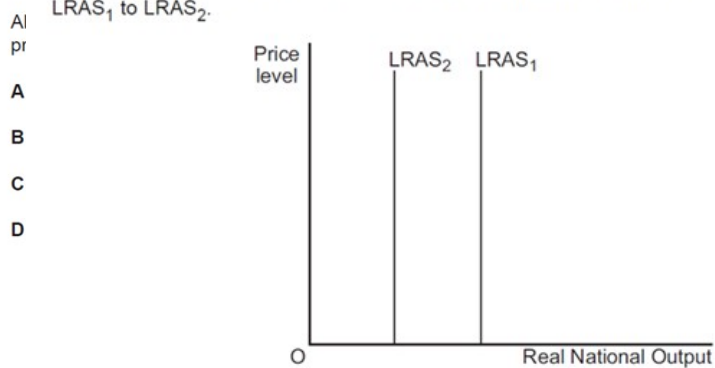
(4) Which one of the following is most likely to shift the short-run aggregate supply curve to the left? A rise in

- A money wages.
- B government spending.
- C the exchange rate.
- D labour productivity.

(5) The diagram below shows the aggregate demand (AD) and the short-run aggregate supply (SRAS) curves for an economy, with the initial equilibrium being at point X.



The diagram below shows a shift in the long-run aggregate supply curve for an economy from $LRAS_1$ to $LRAS_2$.

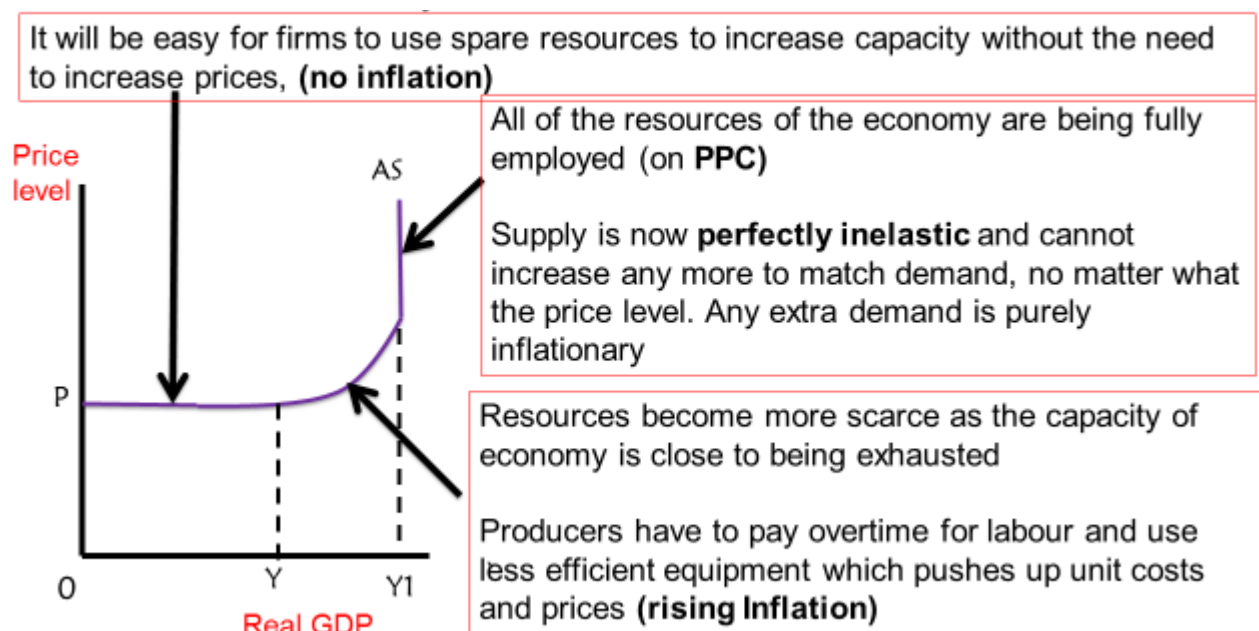


(6)

The shift is most likely to have been caused by a fall in

- A the capital stock.
- B income tax rates.
- C the growth of labour productivity.
- D interest rates.

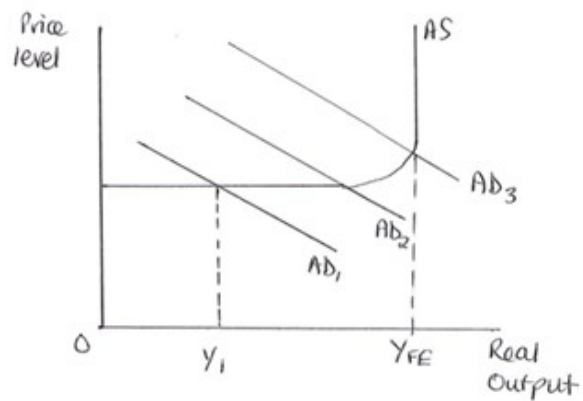
Recap on the Keynesian LRAS



The Keynesian and classical models compared

The Keynesian model shows that it is possible for an economy to be in equilibrium at less than full employment. For example, in a recession with low AD (such as AD₁) there will be a large, persistent, negative output gap and cyclical unemployment.

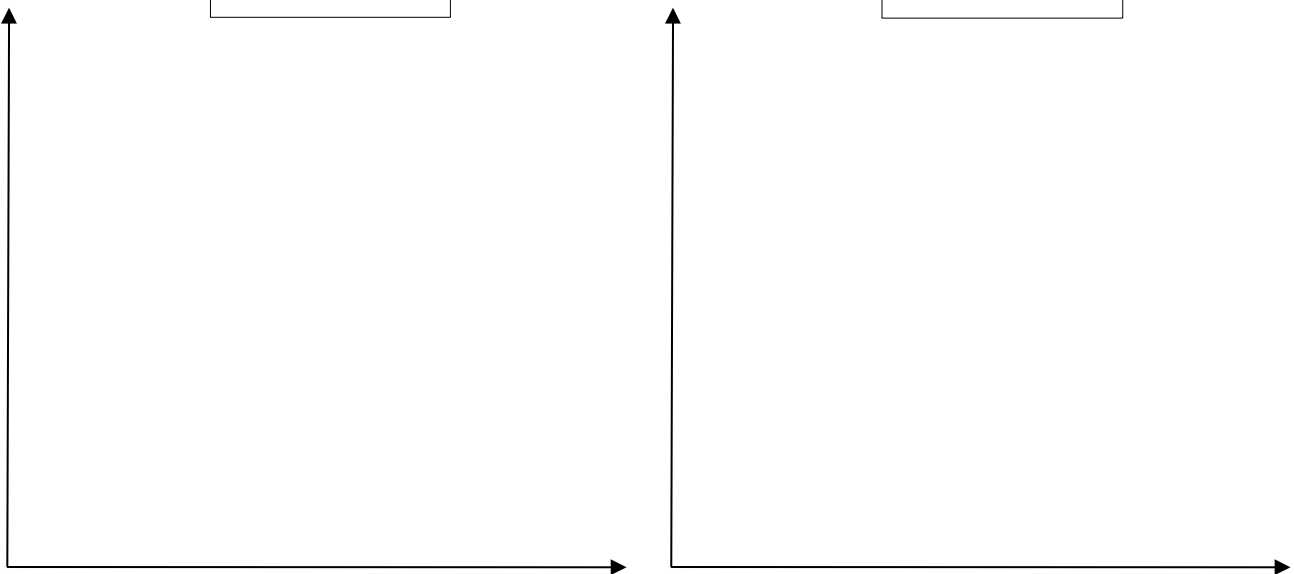
AS does become vertical, like the classical LRAS, when the economy reaches full capacity.



Show the impact on inflation of a rise in AD using both a Keynesian AS and a Classical LRAS curve:

Keynesian AS

Classical LRAS



Free market supply-side policies

1. Reducing income tax rates

Tax rates and bands for 2019-20

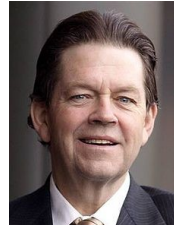
Band	Taxable income	Tax rate
Personal allowance	Upto £12500	0%
Basic rate	£12501-£37,000	20%
Higher rate	£37,001-£150,000	40%
Additional rate	Over £150,000	

Reducing the lower rate of tax (for example to 10%) could:

- raise the take-home pay of low earners
- make it more attractive to work rather than remain on benefits

Reducing the higher rate of income tax (e.g. from 45% to 40%) might:

- Increase the incomes of higher earners
- Reduce the amount of tax evasion/brain drain
- Reduce government tax revenue UNLESS it increases the incentive to work (Arthur Laffer argued it might increase tax revenue)



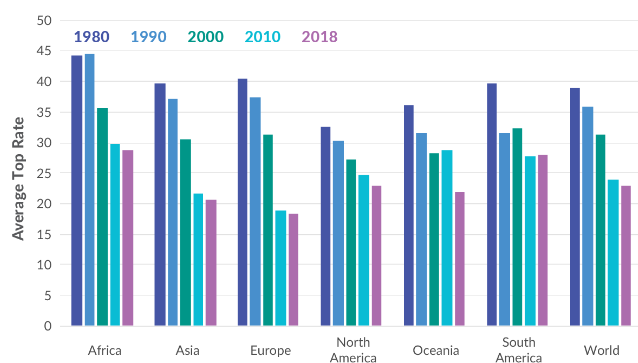
The effect of both policies could be to **increase incentives to work** and increase the **supply of labour** in the economy.

2. Reducing corporation tax rates

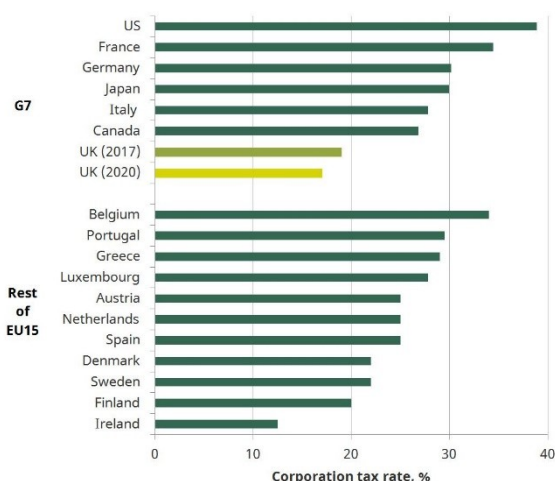
Corporation tax is levied on company incomes. Lower rates of corporation tax on company profits means more profit should be available for investment and therefore there will be higher productivity.

Question 1: Using the data below explain the trend in corporation tax rates since 1980

Average Top Corporate Income Tax Rate by Region and Decade



Question2 : Using the data below explain how the UK Corporation Tax rate compares with other countries and what this should suggest about investment levels in the UK



Question 3: How might other countries respond to cuts in corporation tax?

Question 4: How effective will this policy be?

In addition to cutting tax rates to encourage more investment, governments could increase tax allowances for firms undertaking more investment or research and development

Research and Development (R&D) Relief is a Corporation Tax relief that reduces a company's tax bill in the UK. This will encourage more R and D spending. If more money is spent on R and D in the economy, new production methods will be developed which increase productivity.

The Patent Box enables companies to apply a lower rate of Corporation Tax to profits earned after 1 April 2013 from its patented inventions. The relief was phased in from 1 April 2013 and the lower rate of Corporation Tax applied is 10%.



Evaluation: Will this increase investment? How might government tax revenues be affected? How might other countries respond to cuts in corporation tax? How effective might this be?

3. Privatisation and deregulation (covered in more detail in Theme 3)

Privatisation is the sale of state owned enterprises to the private sector.

Deregulation is the reduction or removal of government intervention in a particular industry, or barriers to entry, in order to create more competition within the industry.

Between 1980 and 2001 many former state-owned businesses were transferred to the private sector, e.g. British Gas, British Telecom, British Airways, British Steel, British Aerospace, Regional water companies, electricity generators and distributors and the railways.

This clip shows the 'Tell Sid' campaign from the 1980s: <https://www.youtube.com/watch?v=nedVpG-GjKE>

Privatisation of Royal Mail in 2013. <https://www.theguardian.com/business/2013/sep/12/government-float-royal-mail-stock-exchange-privatisation>

Note down the benefits of privatisation:

Other benefits of privatisation:	Evaluation / Possible drawbacks of privatisation:

Deregulation involves removing restrictions to the free working of markets.

Example 1:

Royal Mail used to have a legal monopoly in mail delivery, both letters and parcels. Royal Mail had a duty to deliver mail anywhere in the UK. Gradual deregulation starting in 2006 with parcels, has allowed other firms to compete.

Example 2:

Bus deregulation in the UK was allowed under the 1985 Transport Act. Previously most bus services were run by local authorities or licensed operators who therefore had monopoly power on routes. The Act allowed for any company to run buses on a route after 56 days notice.

Other examples:

In 1986 deregulation of the UK stock market and other financial markets in the UK was introduced. This helped the City of London to grow to be a very successful financial market centre.

Deregulation of the airline industry in the EU in 1997 meant any airline from an EU country could operate within any other European country.

The benefits of deregulation: <ul style="list-style-type: none">• Encourages competition• Firms need to cut costs to compete• May lead to lower prices and more customer choice• May attract more foreign investment• Reduces the possibility of government failure	Evaluation / Possible drawbacks of deregulation:
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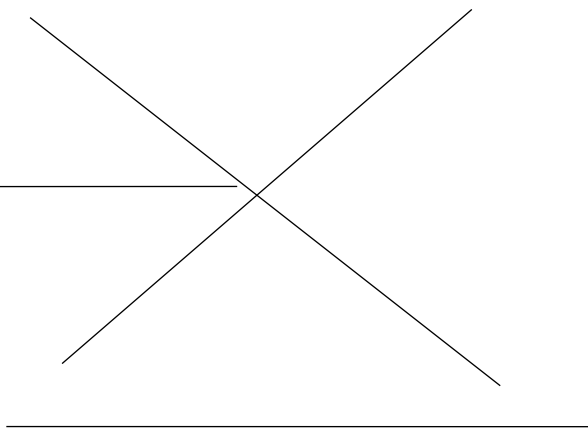
4. Reducing the minimum wage (Also covered in Theme 3)

These rates are for the National Living Wage and the National Minimum Wage. The rates change every April.

Year	25 and over	21 to 24	18 to 20	Under 18	Apprentice
April 2018 (current rate)	£7.83	£7.38	£5.90	£4.20	£3.70
April 2019	£8.21	£7.70	£6.15	£4.35	£3.90

This is a statutory minimum, meaning it is against the law in the UK to pay less than this.

The minimum wage is a form of intervention in the labour market. For some low paid occupations it may raise the wage above the equilibrium level.



Show a minimum wage and its effects on the demand for and supply of labour.

How might this impact on employment and unemployment?

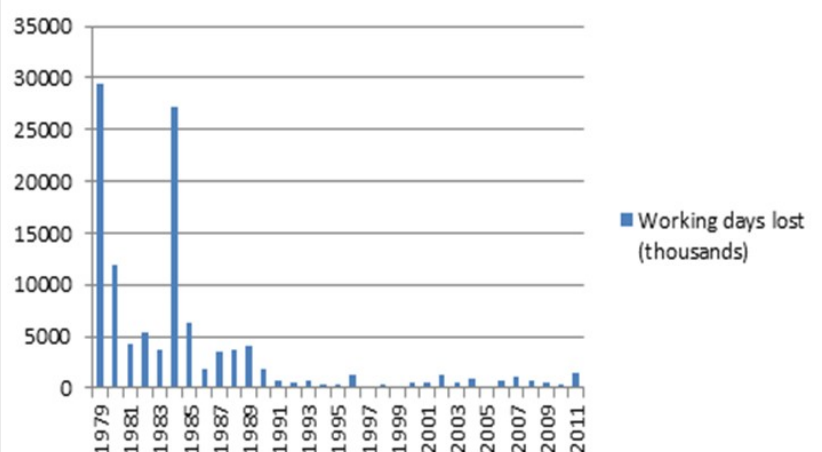
The benefits of **reducing** the minimum wage:

Evaluation / Possible drawbacks of **reducing** the minimum wage:

5. Reducing trade union power

Since the 1980s, in the UK and other countries it has become harder for trade unions to call strikes in opposition to pay

Working days lost (thousands)



offers or changes in working conditions. Less working days are now lost from disputes and therefore output per worker per year (productivity) has risen.

The 2016 Trade Union Act made some changes to further reduce trade union powers, including longer notice periods for strikes and a higher minimum voting turnout for strikes.

6. Reforms to the benefit system

In the UK there are benefits for the unemployed as well as in-work benefits for those on low pay. These benefits are designed to raise real incomes and reduce poverty.

Groups receiving benefits are:

- families with children
- unemployed people
- those on low incomes
- older people
- sick and disabled people
- bereaved people.

In 2013 a major reform was announced, to introduce a Universal Credit (UC), a single means-tested benefit to be paid to people of working age. It will replace most means-tested benefits including:

- income-based Jobseeker's Allowance (JSA)
- income-related Employment and Support Allowance (ESA)
- Income Support
- Housing Benefit
- Working Tax Credit
- Child Tax Credit.

A change to those on disability benefits was also introduced with the Personal Independence Payment (PIP) to replace Disability Living Allowance.

The replacement ratio

This measures the relationship between how much a person would earn in work compared to how much they would get on benefits

$$RR = \frac{\text{disposable income out of work}}{\text{disposable income in work}}$$

And should have a value of less than 1.

Extract from IFS Report 2014 Review of UK Benefits

- Approximately 30 million people in the UK – about half the total population – receive income from at least one social security benefit. For means-tested benefits such as income support, receipt of the benefit usually depends on the claimant's family income, together with their family circumstances and personal characteristics. For contributory benefits, such as contributory jobseeker's allowance, eligibility usually depends on the claimant having paid sufficient National Insurance contributions (NICs) during their lifetime. Some benefits, such as disability living allowance, are neither contributory nor means-tested and are universally available to all people who meet some qualification criteria.
- Since April 2013, a benefit cap (for those out of work) has been in force in an attempt to ensure that no family receives more on benefits than the average net earnings of a family in work. It is estimated that, in

2013–14, over £205 billion was spent on social security benefits in Great Britain. This amounts to approximately £3,296 per head, or 13% of GDP. Expenditure on social security represents by far the largest single area of government spending.

- A single integrated benefit should be simpler for claimants, reduce administrative costs and, by replacing a jumble of overlapping means tests with a single one, eliminate the very highest effective marginal tax rates that exist under the current system.
- At the same time the social security system will also see the largest real reductions in expenditure in its history. The welfare budget is being cut by £20 billion ... and the Chancellor has signalled his intentions to impose an extra £12 billion in welfare cuts (after the next general election). This will involve a trade-off between reducing support for those with the lowest incomes and weakening work incentives by reducing support for those in work.

The benefits of welfare reforms:	Evaluation / Possible drawbacks of welfare reforms:

Interventionist supply-side policies

7. Increased government spending on education and training

e.g. increased state funding for education, tax relief for businesses running training schemes

Education and training raises productivity by:

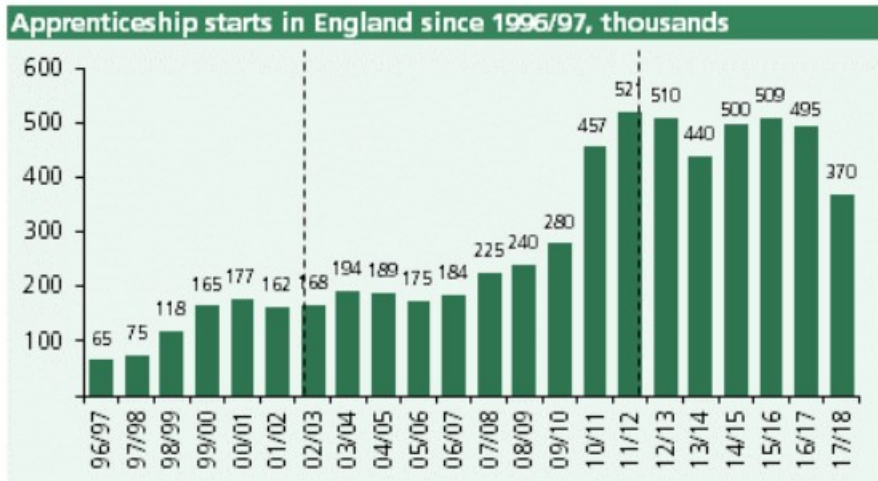
- Increasing skill levels and the ability to work more quickly and accurately
- Familiarising workers with equipment and technology

- Improving the ability to solve problems and make decisions
- Improving the ability to work well in teams
- Increasing worker flexibility

Interventionist economists would argue that if the provision of education and training was left to private organisations there would be under-provision and under-consumption of education and training i.e. market failure. Hence why it should be provided by the state.

Apprenticeships

Apprenticeships are paid jobs that incorporate on and off the job training. A successful apprentice will receive a nationally recognised qualification on completion of their contract.



Source: UK Parliament

Apprenticeship Levy

In May 2017 government funding was changed with the introduction of the Apprenticeship Levy. All UK employers with a pay bill of over £3 million per year pay the apprenticeship levy. The levy is set at 0.5% of the value of the employer's pay bill, minus an apprenticeship levy allowance of £15,000 per financial year. The funds generated by the levy have to be spent on apprenticeship training costs. The government tops up the funds paid by the employer by 10%.

<https://www.fenews.co.uk/fevoices/16822-600-million-a-year-could-be-wasted-on-poor-quality-apprenticeships-warns-reform>

£600 million a year could be wasted on poor-quality apprenticeships

Written by [Reform](#) Published: 13 April 2018

Many low-skill and management training courses have been incorrectly labelled as 'apprenticeships' to attract millions in government subsidies through the apprenticeship levy, according to a new report from the public services think-tank Reform. The report shows that these mislabelled courses account for nearly 40 per cent of the apprenticeships designed by employers in recent years. Without reform, in 2019-20 the Government will spend £600 million on courses that are 'apprenticeships' in name only.

The report, shows the list of roles now counted as an 'apprenticeship' includes serving customers in a delicatessen or coffee shop, working on a hotel reception desk, performing basic office administration and serving food and drink in a restaurant. Such low-skill and often very short training courses do not meet either the historical or international definition of an apprenticeship, yet they can be delivered as an 'apprenticeship' using funds generated by the levy.

The motivation is to shift the costs of training onto the Government instead. The most obvious examples of this relabelling are found in leadership and management skills. The list of the most popular apprenticeship standards includes becoming a 'Team Leader', 'Supervisor' or 'Manager'. Such practices demonstrate that 'apprenticeships' are

increasingly focused on training older and more experienced workers at the expense of creating new opportunities for young people.

The report recommends that a new internationally-benchmarked definition of an apprenticeship is introduced to prevent the possible misuse of the apprenticeship brand by employers and training providers who wish to access government subsidies. Any apprenticeship that is not able to meet this definition should be withdrawn immediately.

In addition, the report proposes that the Government's target of having 3 million people start an apprenticeship by 2020 is abandoned as it prioritises the quantity of apprenticeships being delivered rather than the need to increase their quality.

Tom Richmond, Senior Research Fellow at Reform, said "At present, the apprenticeship levy is too complicated for employers, focused on too many inappropriate forms of training and as a result is unlikely to deliver value-for-money. The Government urgently needs to get rid of these poor-quality apprenticeships in order to provide more opportunities for young people to train as genuine apprentices while saving hundreds of millions of pounds in the process."

Further references:

<http://www.tutor2u.net/economics/blog/apprenticeships-and-economic-performance>

The benefits of increased government spending on education and apprenticeships:	Evaluation / Possible drawbacks of increased government spending on education and apprenticeships:

8. Increased government spending on infrastructure

Infrastructure is the physical systems of transport (road, railways and ports), communications networks (e.g. broadband), energy and water systems that form the basis of the functioning economy.

Improved infrastructure will:

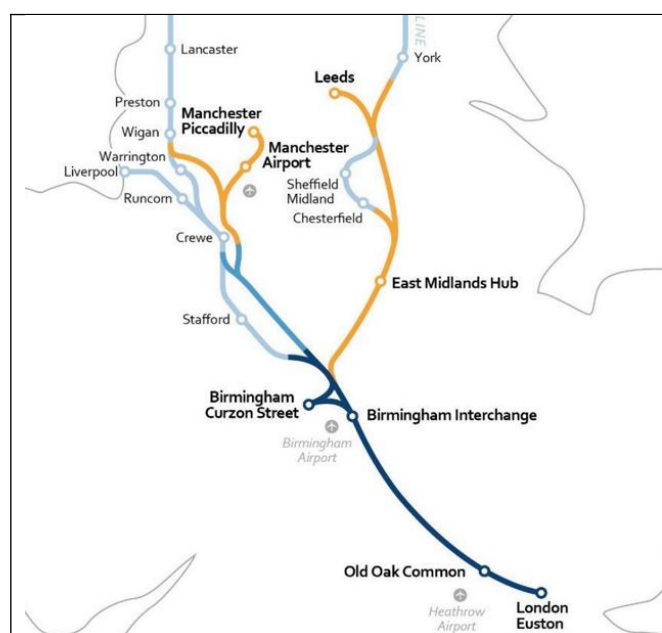
- Lead to productivity gains e.g. time savings
- A more mobile labour force
- Lower costs for business for transport of goods
- A more competitive economy, attracting foreign investment

Case study: Is the HS2 rail project in trouble?

By Tom Espiner Business reporter, BBC News 6 December 2018

Why is HS2 being built?

Transport Secretary Chris Grayling has admitted that parts of the UK rail system are stretched to breaking point. "The system is bursting at the seams... The reality is, the system is full," he told the BBC's Today programme, adding that on certain lines "if the slightest thing goes wrong, that can disrupt the network quite significantly". That is why, he says, the UK needs high-speed rail links, such as the government's flagship HS2 programme, to take the pressure off commuter services and leave more room for freight.



Why is HS2 in trouble?

HS2 has been set a budget of £55.7bn to deliver rail lines from London to Birmingham and on to Manchester and Leeds, with the first phase to open by December 2026. Some experts say there is absolutely no doubt that HS2 will cost substantially more. Michael Byng, who wrote Network Rail's guidelines on how to estimate costs estimates that the cost for just the first phase of the project, from London to Birmingham, will be just under £56bn, and that the whole project could cost double that. "It's very difficult to see how you maintain a positive, attractive cost-benefit analysis, prepared in 2015 before the project received royal assent, when the costs have probably doubled. That cost benefit-analysis will probably have disappeared," he told the Today programme. In other words, if the cost doubles, will the project be worth it?

Has work started on HS2?

Civil engineering work on HS2 has been pushed back to a June 2019 start date, a delay of seven months, according to reports. A Department for Transport spokeswoman insisted that phase one of HS2 would be completed by December 2026.

The benefits of increased government spending on infrastructure:

Evaluation / Possible drawbacks of increased government spending on infrastructure:

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9. Stricter government competition policy

Government competition policy aims to make industries more efficient by restricting 'monopoly power' and forcing firms to reduce their costs in order to maintain their profit. It includes policy on restricting mergers that might lead to a reduction in competition and outlawing certain practices such as price fixing by groups of firms. Firms not meeting the rules can face large fines. It is believed that greater competition in markets will increase efficiency of firms and therefore productivity and economic growth. Also if there are more firms competing in a market they are likely to be more innovative

10. Policies to reduce geographical immobility of labour

i.e. the ability of workers to travel to work easily and/or move to other areas of the country for work.

- more information on job vacancies
- subsidies for worker relocation
- more affordable housing
- Housing Association and home ownership assistance for 'key workers' (nurses, police, teachers)
- Improved transport links

Multiple choice questions on supply-side policies

1.

Which one of the following is most likely to be regarded as a supply-side cause of higher economic growth?

- A** Cheaper consumer credit
- B** Higher welfare benefits for the unemployed
- C** Increased exports of goods and services
- D** Lower tax rates on income

2.

One of the main functions of supply-side policies in the UK economy is to

- A** lower the long-run trend rate of growth of the economy.
- B** create incentives designed to improve economic performance.
- C** cause the rate of growth of aggregate supply to exceed the rate of growth of aggregate demand.
- D** reduce the UK's budget deficit.

3.

Which one of the following would be considered to be a supply-side policy?

- A** A cut in Value Added Tax (VAT) to boost aggregate demand
- B** A cut in income tax rates to boost incentives to work
- C** An increase in government spending to reduce cyclical unemployment
- D** An increase in government spending on welfare benefits to reduce inequality