

A Level Economics (EdExcel)

Theme 4: A Global Perspective

Course companion 5:

Exchange rates,

Terms of trade, Competitiveness,

and Monetary union



Name: _____

Tutor group: _____

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Exchange rates

Specification: 4.1.8 Exchange rates

- a) Exchange rate systems:
 - floating
 - fixed
 - managed
- b) Distinction between revaluation and appreciation of a currency (see Yr1 Exchange rate booklet)
- c) Distinction between devaluation and depreciation of a currency (see Yr1 Exchange rate booklet)
- d) Factors influencing floating exchange rates (see Yr1 Exchange rate booklet)
- e) Government intervention in currency markets through foreign currency transactions and the use of interest rates
- f) Competitive devaluation/depreciation and its consequences
- g) Impact of changes in exchange rates: (see Yr1 Exchange rate booklet)
 - the current account of the balance of payments (reference to Marshall-Lerner condition and J curve effect)
 - economic growth and employment/unemployment
 - rate of inflation
 - foreign direct investment (FDI) flows

Revision of exchange rates

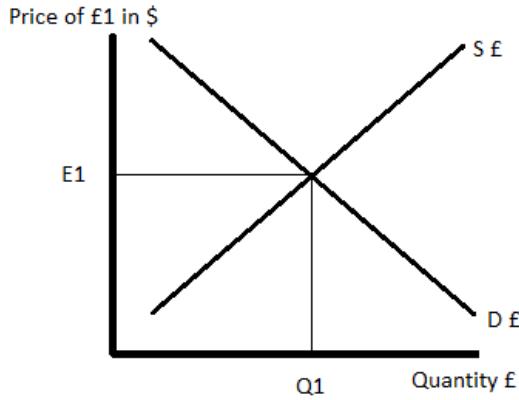
1. Match the terms to the definitions in the table

Exchange Rate term	Definition
Appreciation	The government will intervene to influence the market demand and supply of the currency.
Depreciation	The currency has a target value but can move between permitted bands of fluctuation.
Devaluation	Market supply and demand of the currency are the sole determinants of its value.
Revaluation	An exchange rate which is permanently fixed and does not change
Effective exchange rate	A fall in the value of a currency due to a deliberate government policy
Floating exchange rate	A rise in the value of a currency due to market forces
Semi Fixed exchange rate	A rise in the value of a currency due to a deliberate government policy
Fixed exchange rate	An index number of the value of a country's currency relative to a weighted basket (weights are determined by the proportion of trade) of other currencies.
Managed exchange rate	A fall in the value of a currency due to market forces

2. Consider Sterling freely floating against the US dollar; annotate the diagrams to show whether there is a shift in the demand or supply or both and so whether Sterling appreciates or depreciates.

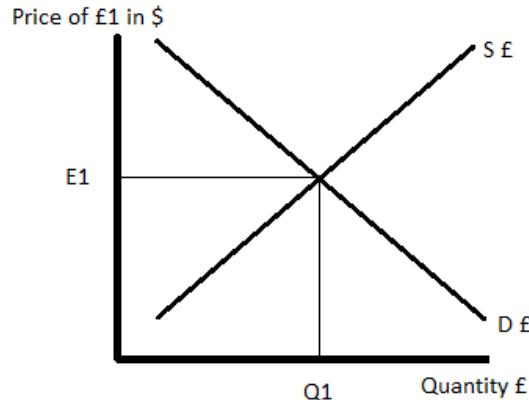
USE A PENCIL AS IT IS EASY TO MAKE MISTAKES!

3. If there is an increase in US demand for British exports.
- 1



And so Sterling will

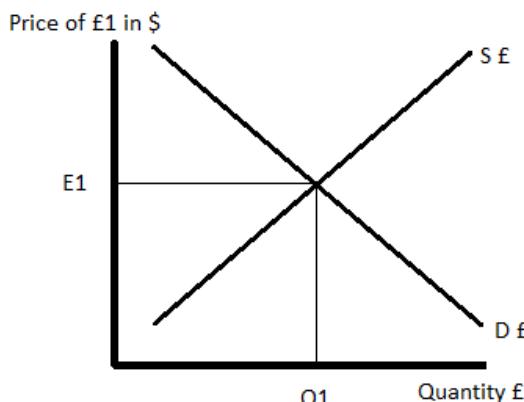
3. If the UK demands more imports from the US:
- 2



And so Sterling will

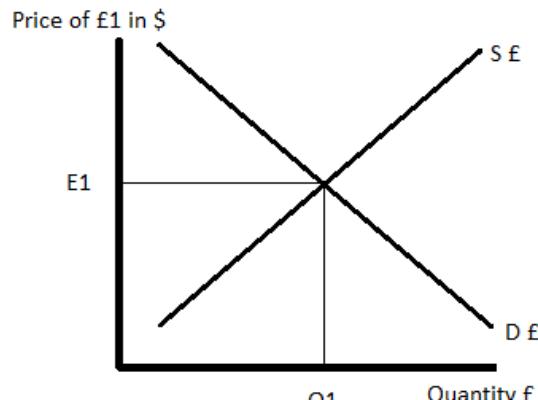
3. If UK interest rates rise:

3



And so Sterling will

3. If UK inflation increases relative to the US:
- 4



And so Sterling will

3. Calculate the change in export and import prices and fill in the blanks below

At an exchange rate:	The price of £100,000 Aston Martin exported in \$ would be:	The price of \$100,000 imports in £ would be:
£1: \$2		
£1: \$1.50		
A fall in the value of the pound causes a _____ in the price of exports and a _____ in the price of imports. This will cause a _____ in the demand for exports and a _____ in demand for imports. The revenue from exports will _____ as the demand is _____ but the price in pounds is the same. The effect on the expenditure on imports depends on the price elasticity of demand for imports. If demand for imports is inelastic, the expenditure on imports will _____. If demand for imports is elastic, the expenditure on imports will _____.		

4. The Marshall-Lerner condition

The Marshall Lerner Condition states that a depreciation of the exchange rate will cause an improvement in the current account of the balance of payments if the combined price elasticity of demand for imports and exports is_____

5. The J-curve effect

Draw a diagram to illustrate the J-curve effect:

Exchange rate systems

Floating exchange rates

In a floating or free exchange rate system, the value of a currency is determined by market forces. Governments do not intervene in the foreign exchange markets.

Fixed exchange rates

A fixed exchange rate system is one where a currency has a fixed value against another currency or commodity.

Intermediate or semi fixed exchange rate systems

In an intermediate exchange rate system, the government intervenes to influence movements in the exchange rate. Usually, the exchange rate is allowed to float within specific limits set by the government. The government will intervene to influence the value the domestic currency to prevent the exchange rate from moving outside the parameters they have set.

Fixed exchange systems

Fixed exchange rate system: a rate of exchange between at least two currencies, which is constant over a period of time.

Gold standard: an exchange rate system where the value of a currency was fixed against a weight of gold.

Currency board system: an exchange rate system where a country fixes the value of its currency to another currency. Notes and coins in the domestic currency can only be printed to the value of assets in the other currency held by the central bank.

Examples of fixed exchange rates systems

The Gold Standard

Under the gold standard, which operated in the 19th and 20th centuries the major trading nations made their domestic currencies convertible into gold at a fixed rate. For instance, in 1914, a holder of a £1 note could go to the Bank of England and exchange the note for 0.257 ounce of gold. Since French, German and other citizens could exchange their currencies for a fixed amount of gold it meant there was a fixed exchange rate between the major trading currencies in the world.



Currency Boards

Adopted by a small number of usually small countries. This is a form of fixed exchange rate where the price of one currency is fixed against the price of another. For example, small states in Europe (e.g. Vatican & Andorra) fix their currency against the Euro. Their central bank prints domestic currency but the amount is linked to the foreign currency reserves it holds.

The ABC of a currency board (Edited from The Economist)

A country that introduces a currency board commits itself to converting its domestic currency on demand at a fixed exchange rate. To make this commitment credible, the currency board holds reserves of foreign currency (or gold or some other liquid asset) equal at the fixed rate of exchange to at least 100% of the domestic currency issued.

Unlike a conventional central bank, which can print money at will, a currency board issues domestic notes and coins only when there are foreign-exchange reserves to back it. Under a strict currency-board regime, interest rates adjust automatically. If investors want to switch out of domestic currency into, say, dollars then the supply of domestic currency will automatically shrink. This will cause interest rates to rise, until eventually it becomes attractive for investors to hold local currency again.

The predictability and rule-based nature of a currency board are two of its biggest advantages. Like any fixed exchange-rate system, a currency board offers the prospect of a stable exchange rate, which can promote both trade and investment. Its strict discipline also brings benefits that ordinary exchange-rate pegs lack. Profligate governments, for instance, cannot use the central bank's printing presses to fund large deficits.

But discipline has its drawbacks. Like other fixed exchange-rate systems, currency boards prevent governments from setting their own interest rates. Hong Kong's interest rates are in effect set by America's Federal Reserve. Because its inflation rate has been higher than in America, this has resulted in low—and sometimes negative—real interest rates in the 1990s. In turn, this cheap money fuelled a bubble in property and share prices.

If local inflation remains higher than that of the country to which the currency is pegged, the currencies of countries with currency boards can also become overvalued and uncompetitive. Governments cannot use the exchange rate to help the economy adjust to outside shocks, such as a fall in export prices or sharp shifts in capital flows. Instead, domestic wages and prices must adjust. In countries where these prices are sticky, such as Argentina, the risk of currencies becoming overvalued is high.

A currency board can also put pressure on banks and other financial institutions if interest rates rise sharply as investors dump local currency. For emerging markets with fragile banking systems, this can be a dangerous drawback. Also a classic currency board, unlike a central bank, cannot act as a lender of last resort. A conventional central bank can stem a potential banking panic by lending money freely to banks that are feeling the pinch. A classic currency board cannot.

Questions

1. What is meant by a 'currency board'?

2. What are the benefits of a currency board fixed exchange rate?

3. What are the potential disadvantages of a currency board fixed exchange rate?

Country example: Argentina: Currency board

In the late 1980's and early 1990's, the Argentinian economy was in deep trouble. Inflation peaked at 3000% in 1989 whilst GDP was 10% lower in that year than in 1980. As part of a recovery plan, the Argentinian government introduced a currency board system in 1991. The Argentinian peso was pegged against the US dollar at an exchange rate of 1 peso to \$1. Inflation fell to 3.4 per cent in 1994 but by this stage the peso was overvalued against the dollar and Argentina's main trading partners. However, this resulted in lower output and higher unemployment in Argentina. A number of exchange rate crises in the 1990s culminated in the currency board being abandoned in 2002. The value of the peso fell by two thirds against the US dollar. The depreciation of the peso made it harder for Argentina to repay foreign lenders.

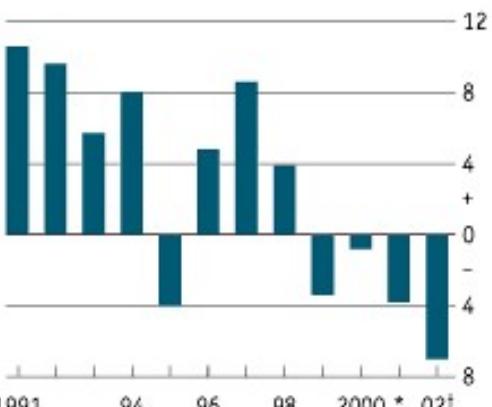
Questions

1. Why would fixing the Peso at a high rate reduce inflation in Argentina?

2. Explain the problems for Argentina of fixing the currency at a high rate

From boom to bust

Argentina's GDP, % change on a year earlier



Sources: IMF; J.P. Morgan

*Estimate †Forecast



Managed exchange rate systems (also known as intermediate or semi-fixed system)

Managed exchange rate system or hybrid or intermediate system: an exchange rate system where free markets determine the value of a currency but where central banks intervene from time to time to change the value of their currency.

Managed float or dirty float: where the exchange rate is determined by free market forces but governments intervene from time to time to alter the free market price of a currency.

Adjustable peg system: an exchange rate system where currencies are fixed in value in the short term but can be devalued or revalued in the long term.

Bretton Woods system: an adjustable peg exchange rate system which was used in the post-Second World War period until its collapse in the early 1970's.

Crawling peg system: an adjustable peg system of exchange rates where there is an inbuilt mechanism for regular changes in the central value of the currency.

Currency or exchange controls: limits on the purchases and sales of foreign currency, usually through its central bank.

Gold and foreign currency reserves: gold and foreign currency owned by the central bank of a country and used mainly to change the foreign exchange value of the domestic currency by buying and selling currency on foreign exchanges.

Devaluation of a currency: when a government or central bank officially fixes a new lower exchange rate for the currency in a fixed or pegged system of exchange rates.

Revaluation of a currency: when a government or central bank officially fixes a new higher exchange rate for the currency in a fixed or pegged system of exchange rates.

Most countries use some form of managed exchange rate system. The free market forces of demand and supply are one determinant of the exchange rate. However, government also plays some part in determining the exchange rate, by:

1. Buying and selling currency using the **gold and foreign currency reserves** held by its central bank, e.g. Bank of England could sell gold & buy Sterling to increase exchange rate.
2. Raising or lowering **interest rates** which then influence the free market demand and supply of the currency, e.g. Bank of England could raise interest rates to attract 'hot money' into the UK banking system, increasing demand for Sterling, and pushing up exchange rate
3. Using **currency or exchange controls**: limits on the purchases and sales of foreign currency, usually through its central bank, e.g. firm wishing to import cars would have to buy foreign exchange through the central bank.
4. **Borrowing from International Monetary Fund (IMF)**: borrowing foreign currency from IMF, which can be used to buy domestic currency & hold up exchange rate. This is a last resort in a crisis, IMF will attach unpopular conditions, e.g. austerity measures.

Adjustable peg systems

Currencies are fixed or 'pegged' against each other in the short term but can be changed in the long term if economic circumstances change. e.g. the Bretton Woods system between the end of the second world war and the early 1970s.

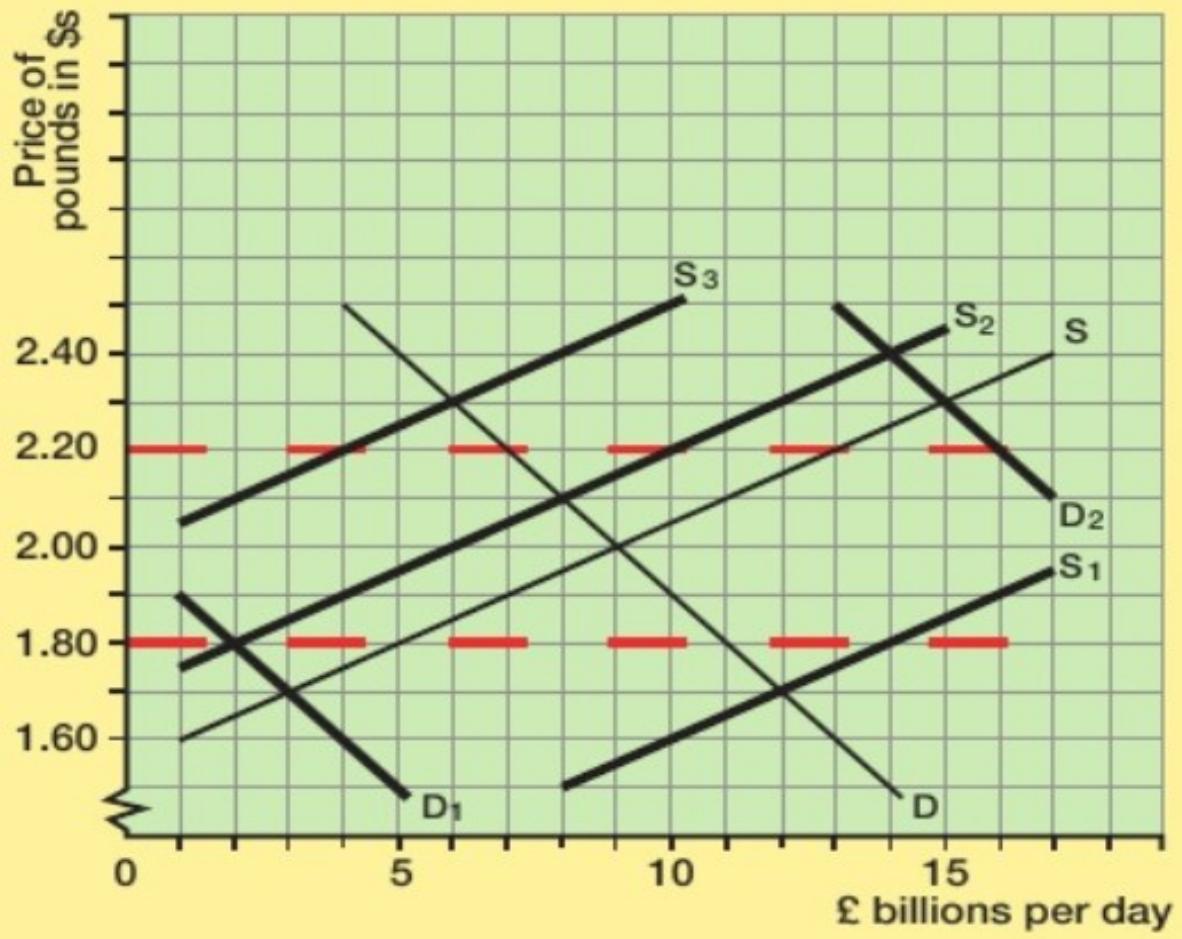
The Bretton Woods agreement

- In 1944 the allied powers met in the American town of Bretton Woods to discuss trade after the war.
- Britain and the other participating countries agreed to fix their currencies to the \$US.
- Between 1949 and 1967 the pound was valued at \$2.80 (known as the par value for the currency).
- The value of the pound was allowed to fluctuate on a daily basis between \$2.78 and \$2.82.
- The Bank of England guaranteed to maintain the value of the pound between these limits, using the 4 methods above.

Diagram to show how the government could maintain the value of the pound by buying and selling reserves of foreign currency:



The demand and supply of pounds



D and S are the free market demand and supply curves for pounds in dollars. The Bank of England is committed to keeping the dollar price of sterling between \$2.20 and \$1.80.

- (a) What is the free market price of the pound?
- (b) With a demand curve D, how much currency (in £) will the Bank of England have to buy or sell per day if the supply curve shifts from S to:
 - (i) S₁
 - (ii) S₂
 - (iii) S₃?
- (c) With a supply curve S, how much currency (in £) will the Bank of England have to buy or sell per day if the demand curve shifts from D to:
 - (i) D₁
 - (ii) D₂?

Country example UK: Exchange rate mechanism: Black Wednesday

The **European Exchange Rate Mechanism (ERM)** was a system introduced by the European Economic Community on 13 March 1979, as part of the European Monetary System (EMS), to reduce exchange rate variability and achieve monetary stability in Europe, in preparation for Economic and Monetary Union and the introduction of a single currency, the euro, which took place on 1 January 1999. Participant countries agreed to keep their currencies within band around a central reference point. E.g. when Britain joined the ERM the pound was allowed to fluctuate around £1=DM2.95. Central banks were committed to intervene in foreign exchange markets and use interest rate policy to keep their domestic currency within agreed limits.

The United Kingdom entered the ERM in October 1990, but was forced to exit the programme within two years after the pound sterling came under major pressure from currency speculators, including George Soros. The ensuing crash of 16 September 1992 was subsequently dubbed "Black Wednesday". There has been some revision of attitude towards this event given the UK's strong economic performance after 1992, with some commentators dubbing it "White Wednesday".

Some commentators, following Norman Tebbit, took to referring to ERM as an "Eternal Recession Mechanism", after the UK fell into recession in 1990. The UK spent over £6 billion trying to keep the currency within the narrow limits with reports at the time widely noting that Soros's individual profit of £1 billion equated to over £12 for each man, woman and child in Britain and dubbing Soros "the man who broke the Bank of England".

Britain's membership of the ERM was also blamed for prolonging the recession at the time, and Britain's exit from the ERM was seen as an economic failure which contributed significantly to the defeat of the Conservative government of John Major at the general election in May 1997, despite the strong economic recovery and significant fall in unemployment which that government had overseen after Black Wednesday. (Source: Anderton/Wikipedia)

<http://www.youtube.com/watch?v=AHDsO7qvXHQ>

Black Wednesday 16th September 1992

1. Why did the UK leave the ERM?



2. Why did UK Prime Minister John Major say he wanted to stay in the ERM?



3. What measures had the Bank of England taken to try to keep Sterling in the ERM?

4. What two options were available to the UK, and what were the consequences of each?

Evaluation of an adjustable peg system

Explain benefits	Evaluation: Disadvantages, limitations, possible solutions, depends on..

Managed or dirty float system

Managed or dirty float: where the exchange rate is determined by free market forces but governments intervene from time to time to alter the free market price of a currency.

Managed or dirty float:

- The exchange rate is determined by free market forces but governments/central banks occasionally intervene to alter the free market price of a currency by changing interest rates quantitative easing and buying/selling foreign currency reserves.
- Managed floats are the most important type of exchange rate system used today: The value of the US\$, the euro, the British pound and the Japanese yen are all determined under a managed float.
- In the UK, the Monetary Policy Committee influences the exchange rate by setting interest rates and carrying out quantitative easing.

Evaluation of a managed floating system

Explain benefits	Evaluation: Disadvantages, limitations, possible solutions, depends on..

Terms of Trade

Specification: 4.1.4 Terms of trade

- a) Calculation of terms of trade
- b) Factors influencing a country's terms of trade
- c) Impact of changes in a country's terms of trade

Terms of trade: The ratio of export prices to import prices

Index of terms of trade = (Index of export prices / index of imports prices) × 100

Calculation of terms of trade

- The terms of trade show the value of a country's average export prices relative to their average import prices.
- There will be an **improvement** in the terms of trade if **export prices rise** relative to import prices, or **export prices fall by relatively less** than import prices fall. If the terms of trade improves, then a 'basket' of exports will buy a larger quantity of imports than before.
- There will be a **deterioration** in the terms of trade if **import prices rise** by more than export prices or if **import prices fall by relatively less** than export prices fall. If the terms of trade worsens, then a 'basket' of exports will buy a smaller quantity of imports than before.

Question 1

Table 1 Index of export prices and index of import prices (Year 5 = 100)

Year	1	2	3	4	5	6
Index of export prices	105	99	95	97	100	110
Index of import prices	110	107	105	102	100	105
Index of terms of trade						

(a) Table 1 shows the index of export prices and the index of import prices for a country over six years. Calculate the index of terms of trade for each year.

(b) Between which years is there

i) An improvement

ii) A deterioration in the terms of trade?

Factors influencing a country's terms of trade

Discuss how each of the following factors might affect a country's terms of trade:

Short run factors

1. An increase in the exchange rate
2. High relative inflation rate (i.e. inflation rate high compared with inflation rates of trading partners).
3. An increase in global demand for a commodity in which the country specialises
4. An increase in global supply of a commodity in which the country specialises

Long-term factors

5. Improved relative productivity rate (i.e. a rise in productivity compared to a country's main trading partners)
6. Increasing world incomes e.g. how might this affect the terms of trade of a country specialising in tourism?

Impact of changes in a country's terms of trade

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, depending on the factor causing the change, it could mean that the country's goods and services are **less competitive** and so may result in a deterioration in the balance of trade, depending on the price elasticity of demand (PED) of the country's exports & imports.

Country example: Deterioration in Australia's terms of trade

Australia's terms of trade have fallen a quarter since peaking in late 2011. The reason is that the prices of the country's main exports, iron ore and coal, have slumped.

The fall in the terms of trade is having a big impact on incomes in Australia. Real wages are falling for the first time since the last official recession in Australia in 1991-92, and the unemployment rate has increased. The downturn is hitting young people hardest with the youth unemployment rate for those aged 15-24 at 13.8 per cent, the highest level since 2001.

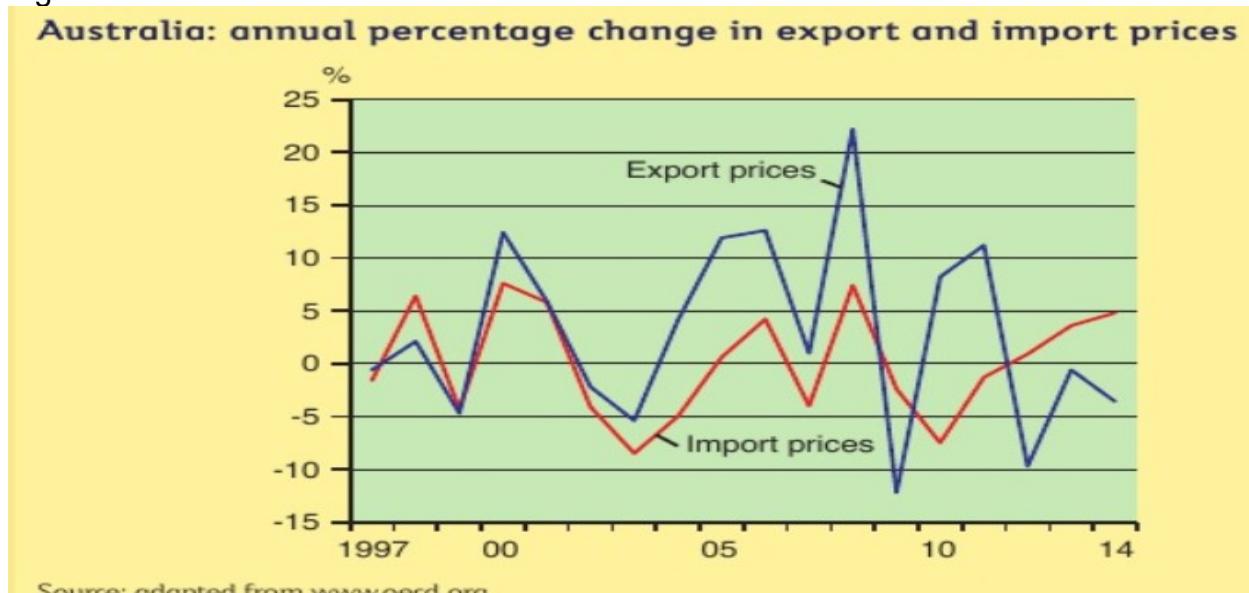
The fall in commodity prices has led to the major mining companies cutting back on investment and production. This has quickly filtered through to the rest of the economy. Phil Ramondino, for example, is a self-employed construction worker. He says: 'Competition is very tough,



construction companies are going bust, leaving me unpaid, and my take-home pay is down 20 per cent in two years.'

Source: adapted from © the Financial Times
19.1.2015, All Rights Reserved.

Figure 1



1. Explain what is meant by the terms of trade, using the data about Australia as an example.

2. Analyse why the change in the terms of trade for Australia in 2012-14 should have led to unemployment and falling investment.

3. Discuss whether the changes in the terms of trade between 2012 and 2014 are likely to have led to an improvement in the current account position on the balance of payments for Australia.

International Competitiveness

Specification: 4.1.9 International Competitiveness

a) Measures of international competitiveness:

- relative unit labour costs
- relative export prices

b) Factors influencing international competitiveness

c) Significance of international competitiveness:

- benefits of being internationally competitive
- problems of being internationally competitive

A country's **international competitiveness** refers to its ability to sell its goods and services in domestic and international markets at a **price** and **quality** that is attractive in those markets.

Measures of competitiveness

Price factors:

Relative unit labour costs: the measurement of labour costs in one country relative to those in another. For international comparisons, the figures are converted into a **single currency** and expressed as an **index number**.

- A rise in UK relative unit labour costs shows that labour costs per unit of output are **rising faster** in the UK than in other countries.
- OR UK unit labour costs are **falling more slowly** than in other countries.
- Rise in UK relative unit labour costs shows UK is **becoming less competitive**.

Relative export prices means the export prices of a country's goods compared to the export prices of her main trading partners, expressed as an index.

- A **rise** means that export prices of UK goods have **risen faster** or **fallen less** than those of her main trading partners.
- A rise therefore shows a **fall** in UK international competitiveness.

Non-price factors:

- **Quality of goods/services:** design, reliability, and availability.

World Economic Forum – Global Competitiveness report 2017-18

<https://www.youtube.com/watch?v=wcCacw0hvIw&t=5s>

Watch the video clip by the World Economic Forum (1.28 mins) and answer the questions:

1. What factors contribute to competitiveness?

2. Why is competitiveness important?

Factors influencing international competitiveness

1. Relative unit labour costs and the exchange rate



1. During which two periods did the UK's relative unit labour costs most improve?

2. Explain why there might be a link between UK relative unit labour costs and the sterling effective exchange rate.

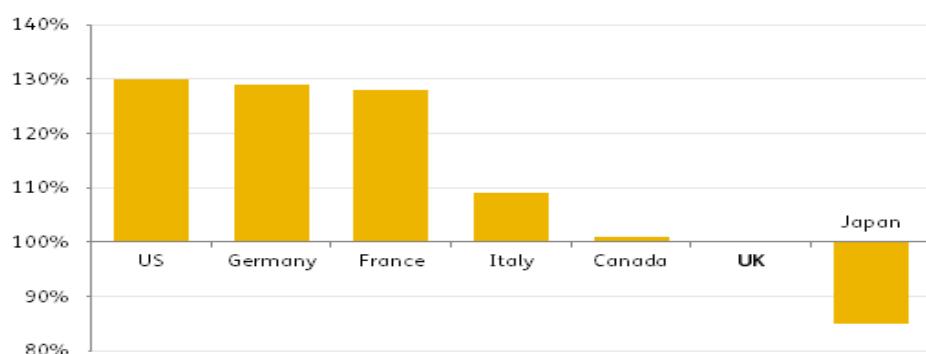
2. Productivity

Productivity is a measure of efficiency. It is measured by the output per input used.
For example, labour productivity is measured by the value of output produced per worker:
Total value of output/Number of workers

Country example: UK: Article by John Van Reenen, director, Centre for Economic Performance at London School of Economics and Political Science

Chuka Umunna, Labour's former shadow business secretary said 'It takes on average a British worker to Friday to do what equivalent workers in Germany and France will complete by the end of Thursday afternoon.'

Productivity compared
GDP per hour worked compared to UK (=100%) in 2013



Source: ONS International comparisons of productivity 2013 – first estimates



British workers have a productivity problem, argued the former shadow business secretary Chuka Umunna on the Today programme recently. Injecting an element of European competition into his arguments for why the UK needed to focus more on boosting the number of high-skilled jobs in the economy, he said British workers are less productive than those in France and Germany. What he says is basically correct. His statement suggests that UK workers are at least 20% less productive than those in France and Germany – as ending work on Thursday means working four days out of five, so 20% fewer hours per week. The latest relative productivity numbers looking at GDP per hour from the Office of National Statistics are below. The numbers are based at UK=100 so the fact that the German index is 129 means that Germany has 29% higher GDP per hour than the UK. One could quibble with the numbers in various ways. First, these are calculations per hour and UK workers work more hours than Germans or French. According to the OECD, in 2013 the British worked an average of 1,669 hours a year, compared to 1,388 in Germany and 1,489 in France. The position looks a bit better on a GDP per worker basis. Yet even on this measure the UK lags behind. If the UK's GDP per worker was 100 in 2013, France's was 14% higher at 114, Germany's 7% higher and the US 39% higher. More importantly, it is reasonable to think of controlling for differential hours when looking at international productivity. Efficiency is not raised simply by working more hours. The productivity numbers also vary from year to year. The UK's position looked stronger before the crisis, and it is unclear how much of the gap is due to cyclical factors. British workers did bridge some of the productivity gap in the decade leading up to the crisis, but they still lagged in terms of GDP per hour.

The numbers are also affected by the fact that the employment rate is relatively high in the UK. Unemployment is much higher in France than in the UK, for example – at 5.9% in the UK in

October 2014, compared to 10.2% in France according to the OECD. So the least productive individuals are therefore not employed, which flatters the French productivity numbers. But it cannot explain the difference with Germany or the US. Labour productivity partially reflects differences in capital invested per worker. Capital per worker levels are higher in Germany than the UK, for example. In addition, UK businesses complain of a lack of skilled workers.

It's true to say that on the basis of GDP per hour, British workers are less productive than those in Germany and France, so much so that they would finish by Thursday what a Brit would do by Friday. But as UK employees work more hours over the year than those in France and Germany, and there is a high rate of employment, it's important to put these numbers in context.

Questions:

- a) Evaluate how productivity in the UK compares with other developed countries.
- b) How can this productivity gap be explained?

3. Regulation

Country example: UK

The IOD estimated in 2012 that red tape costs business £80bn, whereas official government estimates are £13bn. There are currently over 21,000 regulations and statutory instruments on the statute books. Estimates put the cumulative cost to business of regulations introduced since 1998 at nearly £90 billion a year. There is a £1 billion burden for business from complying with employment law alone. One plan is to scrap request time for training to SMEs and the right to request flexible working to parents with children under 17.

One of the most significant burdens highlighted has been the UK's overly slow and bureaucratic planning system. On average it takes more than twice as long, 95 days, to go through the procedures to build a warehouse in the UK as the USA. Recent research by Reading University suggests that the costs to the economy associated with delays in processing applications may be up to £3 billion a year. For example, planning costs imposed on business are nearly ten times larger in the West End of London than in Brussels and more than double those in Paris. The plan-making will require local authorities to work promptly to accept applications. Source: The plan for Growth BIS 2011

- a) What are regulations and briefly explain how you would expect them to affect competitiveness?
- b) What are the problems of removing regulations?

4. Wage and non-wage costs

Non-wage labour costs are social security and insurance contributions, labour taxes and other costs related to employing someone and may include:

- Statutory and contractual (non-statutory) contributions covering social insurance, including retirement, healthcare, unemployment, child allowance, maternity, disability and other contingencies;
- Taxes on payrolls or credits that are not directly linked to social programmes;
- Cost of providing non-statutory services to employees such as additional days off work, company day-care, transportation or company canteen.

Country example UK/EU: Labour costs

Hourly labour costs in the UK

It is now on average cheaper to hire a worker in the UK than in Spain. The average hourly cost of employing someone last year in the UK was €20.90 compared to €21.10 in Spain according to data from Eurostat, the statistical office of the EU. Both countries' labour costs were lower than the EU average of 23.70 and far below those of Germany, France, Italy and the Netherlands.

'I think this is part of the story of very strong job growth in the UK', said Michael Saunders, a Citi economist. 'The UK by western European standards is a relatively low cost country.'

The UK's average hourly labour costs in euros barely changed between 2008 and 2013, while the EU's climbed 10.2 per cent and Spain's rose 8.7 per cent. As well as wages and

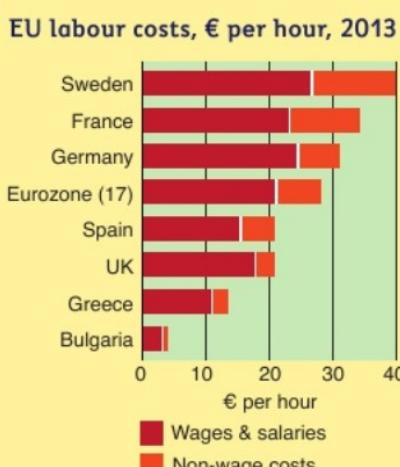


bonuses, the figures include non-wage costs such as employers' social contributions, which are also lower in the UK.

Britain's divergence from its neighbours is the result of a fall in the value of sterling during the financial crisis from almost €1.50 in 2007 to less than €1.10 in 2009. Sterling has risen since then, particularly this year, but is still only worth about €1.25. The shift reflects five years of weak pay growth in the UK which has pushed down living standards to their lowest in a decade. However, the UK's weak wage growth has been accompanied by weak labour productivity. Ben Broadbent, the Bank of England's deputy governor, said at the weekend it was possible wage growth had adjusted downward to a 'protracted period of low productivity growth.'

Source: adapted from © the *Financial Times* 15.3.2014,
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Figure 6



1. Explain why, in 2013, the UK had lower labour costs than Spain despite having higher average wages and salaries.
2. Analyse how both labour costs and the exchange rate can affect the international competitiveness of the UK economy.
3. Evaluate whether UK workers and UK firms have benefited from changes in UK international competitiveness since 2007.

Evaluation

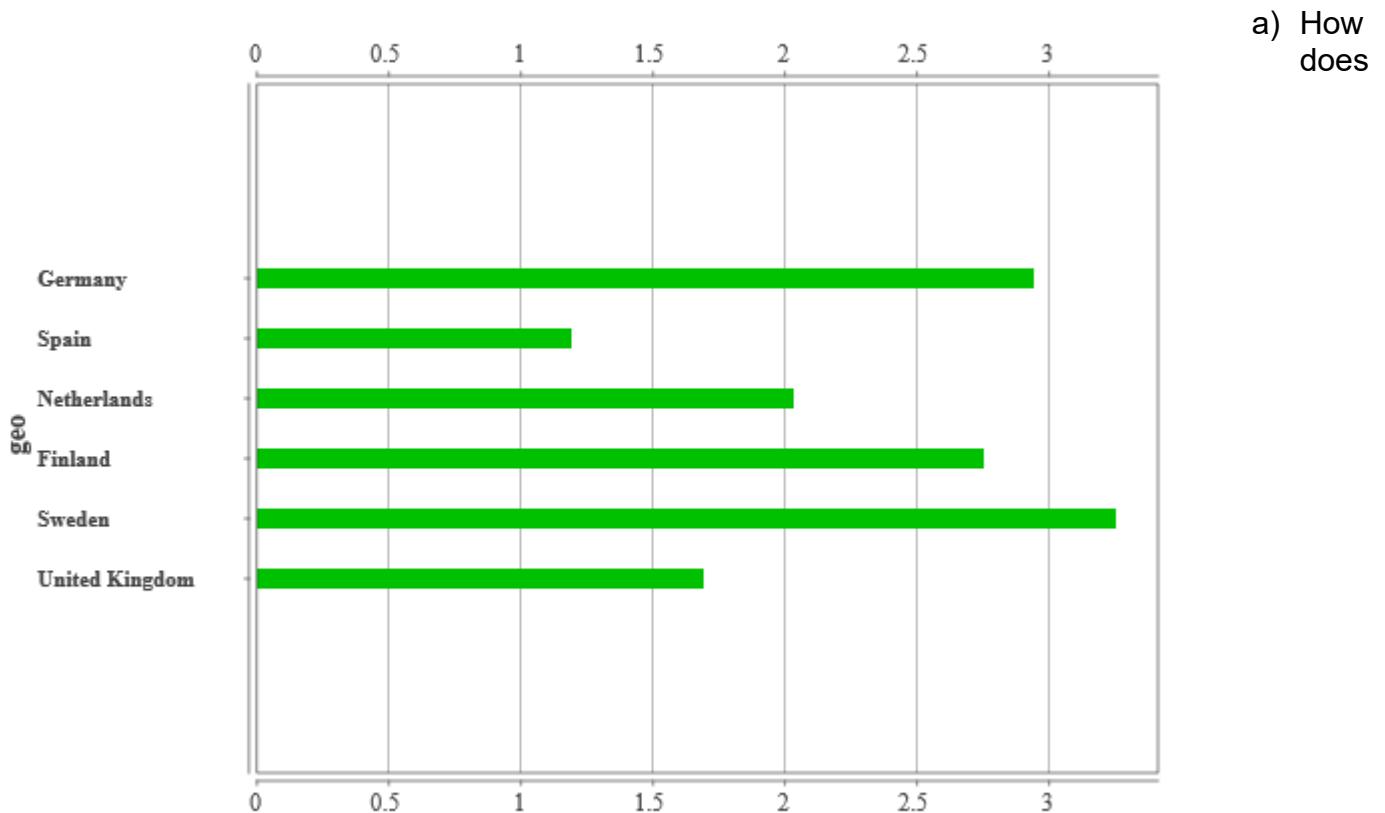
Identify how workers and firms might have gained or lost out by trends in competitiveness and then evaluate their relative importance. What extra information would you need to make a more rounded assessment? How important is the information you don't have to making the assessment?

- a) Explain why, in 2013, the UK had lower labour costs than Spain despite having higher average wages and salaries.
- b) Analyse how both labour costs and the exchange rate can affect the international competitiveness of the UK economy.
- c) Evaluate whether UK workers and UK firms have benefited from changes in UK international competitiveness since 2007. (See tip on evaluation above)

5. Research and development (R & D)

Country example: UK & EU Gross Domestic Expenditure on Research and Development

EU countries GERD as a percentage of GDP 2016. Source: Eurostat

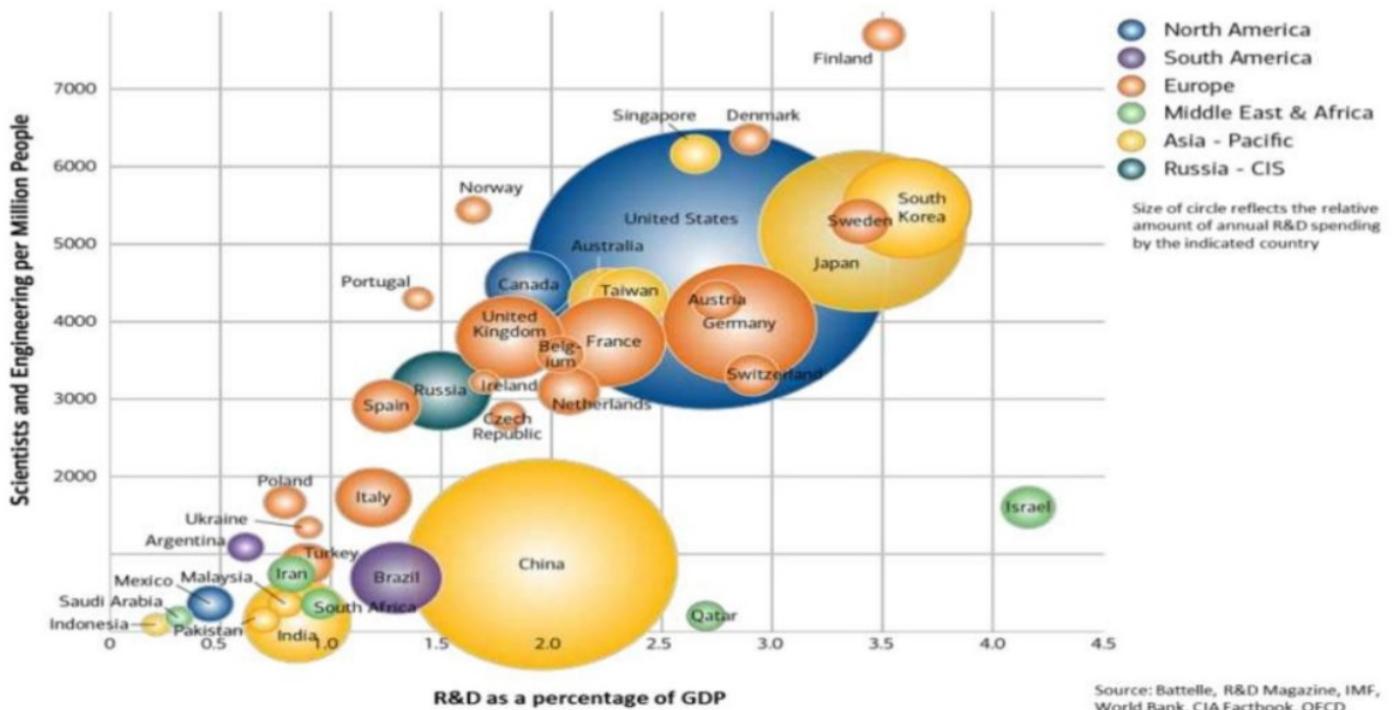


a) How does

spending on R&D help improve a country's competitiveness?

b) How does the UK's record in spending on R&D compare to other EU countries in recent years?

R & D Spending and Scientists per million people – by country 2014



Source: Battelle, R&D Magazine, IMF, World Bank, CIA Factbook, OECD

- c) Select 5 countries which have performed particularly well in terms of R & D as a percentage of GDP and the number of scientists and engineers per million people.
- d) Select 5 countries with disappointing performance on both measures.
- e) How does the UK rank in this global comparison?

6. Quality

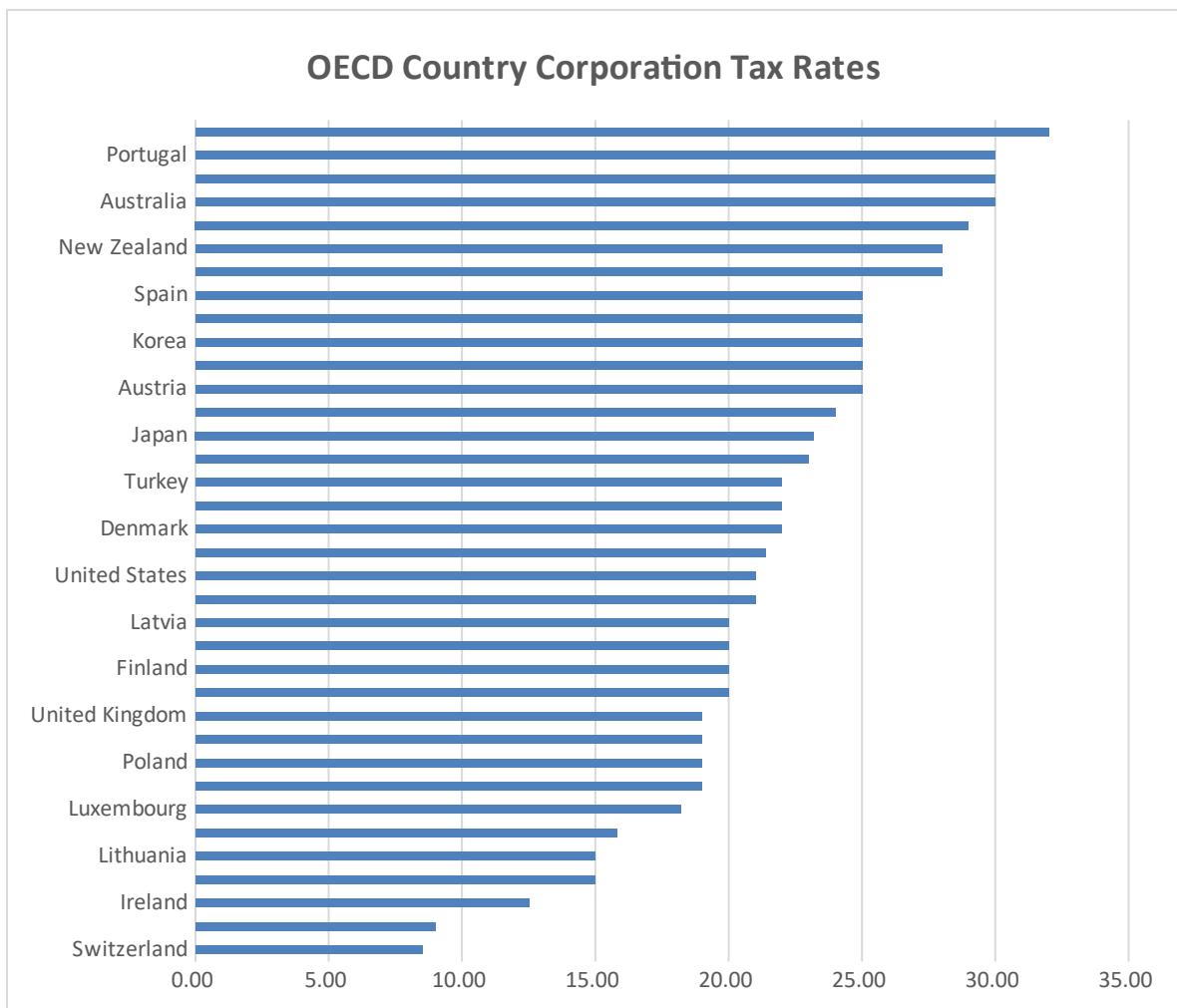
Quality is an important factor, which affects non-price competitiveness. If businesses can produce high quality goods and services, they may be able to sell them at higher prices and make higher profit margins on their products.

- a) How might businesses improve the quality of their goods or services?
- b) What are the potential problems for businesses with trying to improve the quality of their products?

7. Taxation

Country example: UK

The following table shows corporation tax rates for 2019. This is the tax paid on company profits.



- How does the corporation tax rate for the UK compare with the other countries shown?
- How do changes in corporation tax rates affect businesses?
- Explain how a fall in the corporation tax rate may affect the competitiveness of a country.

Country example Italy: Southern Europe faces a major structural crisis

Source: Paul Ormerod, tutor2u, 25/11/2015



<http://www.tutor2u.net/economics/blog/southern-europe-faces-a-major-structural-crisis>

The financial crisis of 2007 to 2009 uncovered deep structural faults in most of the economies of Southern Europe. In Spain GDP is now 5 per cent lower than it was nearly eight years ago, and Portuguese output is 6 per cent lower. In Italy, the fall in GDP is as much as 9 per cent. Membership of the Euro does not help. But there are much more fundamental issues.

A fascinating paper by Gianluigi Pelloni and Marco Savioli in the latest issue of the *Economic Affairs* journal focuses on why Italy is doing so badly. A crucial reason is that Italy has a high level of corruption. Transparency International ranks the countries of the world on this measure. The least corrupt is Denmark. Germany and the UK come into the charts at 12 and 14 respectively. Italy is at number 69, along with Greece, Romania and Senegal. Italy has suffered from a lack of restructuring of production. The products in which Italy specialises are very similar to those of twenty years ago. And the economy continues to be populated by vast numbers of tiny firms, specialising in commodities with low technological content in both the manufacturing and service sectors.



There are many barriers to both innovation and expansion. For example, access to credit is difficult and complex, as a 2013 World Bank study highlights. Start up costs are high. The average number of years of tertiary education in the population aged over 25 is only half that of France, Germany and the UK, so the workforce is less capable of dealing with technological advances. Pelloni and Savioli do detect some positive signs in sectors such as chemicals, food and pharmaceuticals. But mere tinkering will not be enough. Drastic reforms are needed to deal with the structural weaknesses exposed by the financial crisis.

1. What weaknesses in Italy's competitiveness are identified in the article above?

2. What actions could Italy take to improve their competitiveness?

- To what extent do you think it will be easy for Italy to improve their competitiveness.

Monetary union

Specification: 4.1.5 Trading blocs and the World Trade Organisation (WTO)

- a) Types of trading blocs (regional trade agreements and bilateral trade agreements): monetary unions: conditions necessary for their success with particular reference to the Eurozone
- b) Costs and benefits of regional trade agreements

Monetary union or currency union: a group of countries which share a common currency such as the euro.

Optimum currency area: a group of countries where efficiency would be maximised by sharing a common currency.

Harmonisation: establishing common standards, rules and levels on everything from safety standards to tariffs, taxes and currencies.

Fiscal union: a group of countries where a central body has some powers over government borrowing, government spending and setting uniform rates of taxation in member countries.

The Eurozone (currency launch 1.1.1999 <https://www.youtube.com/watch?v=0LsM42TRSpQ>)

- Monetary union of 19 of the 27 members of the EU which have adopted the euro as their common currency.
- Rest of EU countries obliged to join in future – except Denmark who have opt-out agreed.
- Members: Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia, and Spain.
- Andorra, Monaco, San Marino, and Vatican City have formal agreements with the EU to use the euro as their official currency and issue their own coins
- Kosovo & Montenegro have adopted the currency unilaterally but are not official members.

European Central Bank (ECB)

- Controls **monetary policy** for Eurozone, setting **common interest rate** for the 19 countries.
- **Objective is price stability: CPI inflation 2% or below.**
- Manages foreign currency reserves of EMU, no explicit exchange rate target but some currency intervention.
- Distributes euro note & coin
- Based in Frankfurt



Brief history

- 1979: Launch of European Monetary System (EMS), which first established the **Exchange Rate Mechanism (ERM)**. The UK only joined ERM briefly 1990-1992.
- 1989: Delors Plan set out proposals for creating European Economic and Monetary Union (EMU), including a single currency and European Central Bank.
- 1993: Maastricht Treaty includes **convergence criteria** for countries wishing to join single currency.

- **1 Jan 2002: 11 EU countries adopt the euro as their currency:** Belgium, Germany, Spain, France, Ireland, Italy, Luxembourg, Netherlands, Austria, Portugal and Finland.
- Further countries have since joined (see current membership above).
- The UK government decided not to join the euro

Joining the Euro: Convergence criteria

Countries wishing to join the single currency were supposed to meet four convergence criteria:

1. Stable prices: inflation no more than 1.5 percentage points higher than the average in the three member countries with best price stability i.e. lowest inflation.

2. Stable exchange rate: The national currency must have been stable relative to other EU currencies for a period of two years prior to entry into the monetary union.

3. Fiscal policy: sound government finances:

(a) Government debt must not exceed 60 per cent of GDP

(b) The annual government budget deficit must not be greater than 3 per cent of GDP.

4. Low interest rates: The 5 year government bond rate must not be more than 2 percentage points higher than in the three member countries where interest rates lowest.

(As we shall learn when we watch 'The Great Euro Crash', some countries were allowed to join without meeting all the agreed criteria).

The benefits and costs of monetary union:

Advantages of joining the Euro single currency

Evaluate each of the following advantages, e.g. magnitude/significance of issue, significance for a country depends on...

1. Reduced transaction costs

- No currency exchange costs, saves bank charges/commission which may take the form of an unfavourable exchange rate

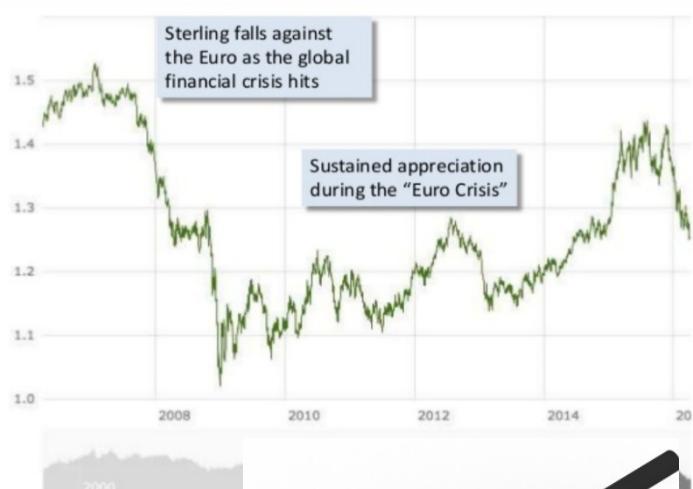
Evaluation

Currency	Buying Rate	Selling Rate
USD	29.75	30.55
GBP	47.85	49.27
EUR	42.21	43.18
CNY	4.28	4.88
JPY	37.45	38.94
MYR	9.21	10.28
AUD	31.68	32.85
HKD	3.77	4.00
KOR	0.022	0.033
PHP	0.47	0.76

2. No exchange rate fluctuations (risk)

Businesses no longer faced with their domestic currency fluctuating against euro.
Why is this benefit?

Sterling against the Euro



Evaluation

3. Increased price transparency



Single currency makes it easier for customers and businesses to compare prices between different countries and buy from the cheapest source.

Benefits?

Evaluation

Other advantages of joining the euro

The three benefits of reduced transactions costs, no exchange rate fluctuations and increased price transparency, many other economic benefits may arise:

4. Increased trade between eurozone nations

- Reduced transaction costs & exchange rate risk, and price transparency lead to **more trade** between Eurozone countries.
- This should stimulate **competition**, further **specialisation according to comparative advantage** and improved **productivity**. There could also be greater **economies of scale**.

Explain how consumers will benefit from greater competition

Explain what is meant by economies of scale and why could joining the euro result in increased economies of scale

5. Inward investment

- **Foreign direct investment:** investment undertaken in one country by companies based in other countries.
- Economists argue membership of euro might encourage inward investment

Why?



Evaluation

Disadvantages of joining the euro

Evaluate each of the following disadvantages, e.g. magnitude/significance of problem, short term/long term, possible solutions, significance depends on...

1. Transition costs

The change-over process of introducing the euro imposes costs on businesses.

Conversion costs vary significantly between industries.

Examples?

Evaluation

2. Loss of monetary policy independence “one size fits all monetary policy”

European Central Bank (ECB) sets **one interest rate** for the whole Eurozone, problems include:

- **Business cycles** not synchronised i.e. one member country could be in recession, while another member country could have rapid short run growth, with AD rising fast..
- **Structural differences** meaning ECB monetary policy affects countries differently, i.e. size of impact on output/price level or time lags different.



What problems might a Eurozone member face if the interest rate set by the ECB was ‘too low’ for their economy at a time of economic growth?

What problems would a Eurozone member face if the interest rate set by the ECB was ‘too high’ for their economy, when their economy is in recession?

Evaluation

Convergence

- Convergence arises when countries have very similar rates of economic growth, inflation and unemployment at the same rate of interest
- Convergence between a new candidate country and the existing eurozone economies should be achieved before a new country joins the euro.

Deflationary bias in ECB inflation target

- ECB target to keep inflation below 2% (rather than UK target of 2% plus or minus 1%) could lead ECB to pursue deflationary monetary policy (i.e. high interest rates), causing slower growth/ higher unemployment.

3. No exchange rate adjustment possible

If an economy is uncompetitive the exchange rate will fall to restore competitiveness.

This could not happen if a country adopts the euro
Why does a fall in the exchange rate increase competitiveness?

Evaluation

4. Constraints on fiscal policy

Fiscal stability pact has limited freedom of individual states in fiscal policy.

- (a) Government debt must not exceed 60 per cent of GDP
- (b) The annual government budget deficit must not be greater than 3 per cent of GDP.

Explain

Evaluate

Optimal Currency Area

Optimum currency area: a group of countries where efficiency would be maximised by sharing a common currency.

Many economists believe that the Eurozone is a long way from being an optimal currency zone.

The following features are needed to be an optimal currency zone:

1. Member countries need to have a sufficient amount of structural economic convergence. For example, they need to have broadly similar trade patterns, share similar business cycles, underlying trend growth rates and housing market structures.

Why does this matter?

2. Participating countries need to respond in a similar / symmetrical way to external economic shocks (such as commodity price changes or a financial crisis) and also policy changes. If countries react in an asymmetrical manner to an interest rate change, this can make European monetary policy destabilising – it will be either too stimulative or too tight, but not quite right! How has the financial crisis of 2008 affected some countries more than others?

3. If a nation is inside a currency union it needs sufficient labour market flexibility to absorb unexpected economic events. We judge flexibility in many different ways including geographical and occupational mobility of the workforce and the flexibility of pay and employment in different industries.

What is meant by 'geographical mobility of labour'?

Why might labour be more geographically immobile between Eurozone countries than between states in the USA?

Why might this be problematic?

4. Fourthly, some argue that an optimal monetary union needs some sort of fiscal union so that tax transfers could be made from the prosperous regions to the less prosperous regions. Otherwise, people in poorer regions may resent being in a single currency area if they believe this causes higher unemployment and lower real incomes. Differences in real incomes and unemployment arise between regions of the UK and the USA but the UK and US governments transfer a much higher % of GDP from the rich to the poor regions than occurs in the Eurozone through the EU budget. How are funds transferred within the UK?

The Great Euro Crash video

1. What are the key problems facing the Italian economy?
2. What are the key strengths of the German economy?
3. Why did Francois Mitterand propose a single currency?
4. What were the problems of creating a euro according to Nigel Lawson?
5. Why were countries allowed to join the euro even though their national debt was more than 60% of GDP?
6. How did Greece keep their budget deficit below 3% of GDP?
7. Why was the stability and growth pact ineffective?
8. Why was the cost of borrowing low across the Eurozone?
9. How did low borrowing costs affect the housing market in Ireland and Spain?

10. How did the Greek government create an ‘earthquake’ in the Eurozone?

11. Why did the debt crisis spread to other countries?

12. How has the European Central Bank tried to stabilise the Eurozone economy?

13. What must Southern economies do to restore their competitiveness?

14. How has Germany increased competitiveness relative to other countries in the Eurozone?

15. How has Germany benefited from the Eurozone?

16. What are the implications of the Eurozone collapsing?