

# **A level Economics Theme 2**

## **The UK Economy- Performance and Policies**

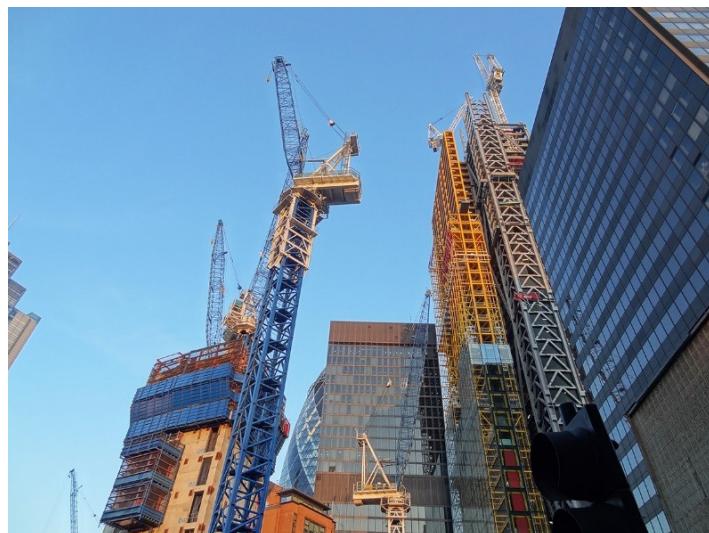
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**Economic Growth**

**Research task:** Living standards, UK National wellbeing and happiness



**NAME:**  
**TEACHER:**

**TG:**

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# Measures of national income- terms and definitions

## Specification 2.1.1

a) Rates of change of real Gross Domestic Product (GDP) as a measure of economic growth

b) Distinction between:

- real and nominal
- total and per capita
- value and volume

c) Other national income measures:

- Gross National Product (GNP)
- Gross National Income (GNI)

### Exam questions:

Explain the difference between real and nominal incomes

Explain what is meant by a fall in Gross Domestic Product at constant prices

There are **THREE** ways of measuring national income, by output, income or expenditure.

The most commonly used measure of national income is GDP which can be calculated by any of the 3 measures.

GDP (Gross Domestic Product) is the most commonly used measure of national income. It is used to judge the size of an economy and whether it is growing or in decline. If GDP increases then there is economic growth. This is one of the most common measures of a country's economic performance. The official definition of a recession is a decline in GDP for two successive quarters.

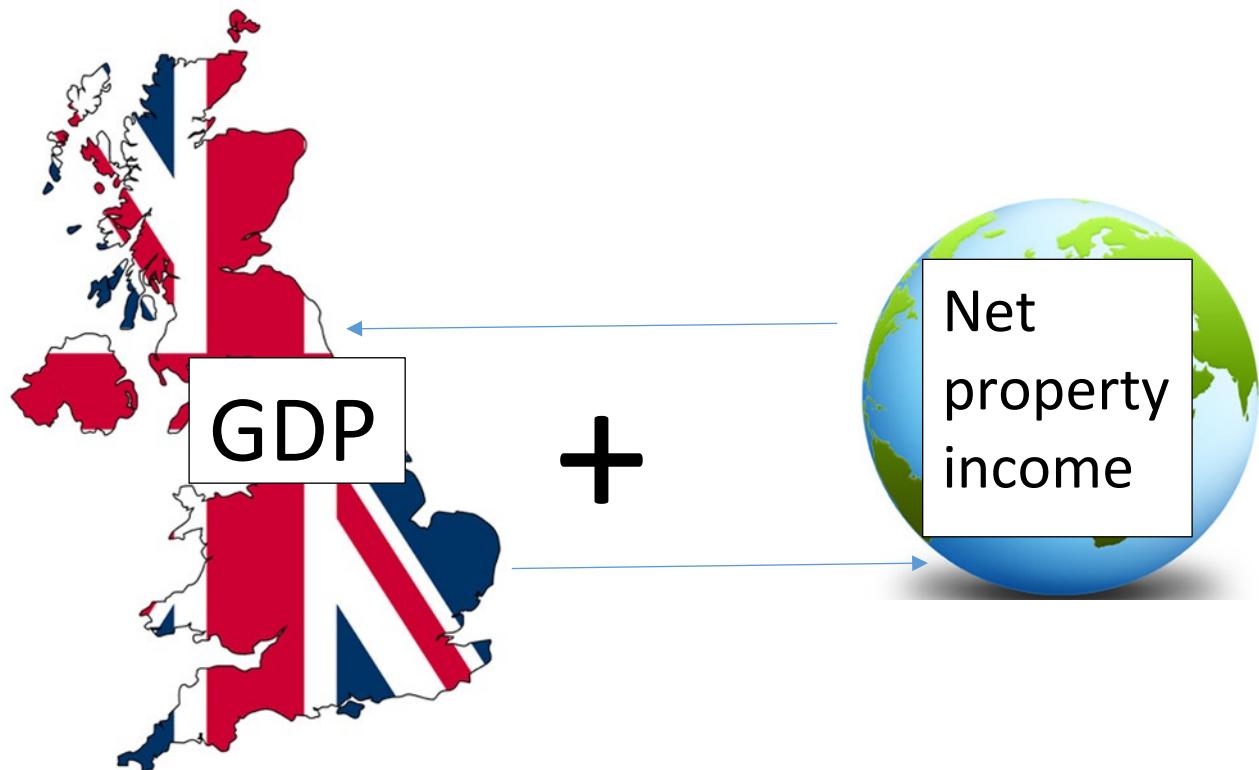
### Adjustments made to national income to make the figures more meaningful:

<b>Nominal GDP</b> This is the money value of the output of all goods and services of a country. It is sometimes called money GDP. This will rise if EITHER more goods and services are produced OR the prices of goods and services rises. This is also <b>GDP at current prices</b>	<b>Real GDP</b> This is nominal GDP adjusted for inflation. While rising prices cause nominal GDP to rise, even if the number of goods and services produced remains the same, real GDP will only rise if more is produced. This is also <b>GDP at constant prices</b> . To calculate real GDP money GDP is divided by a prices index.
<b>Total GDP</b> This is the value of output of the whole economy	<b>Per capita GDP</b> This is GDP per head of the population and is calculated by dividing total GDP by the current population of the country
<b>Value</b> This is a measure of the money value of GDP i.e. nominal GDP.	<b>Volume</b> This is a measure of the number of goods and services produced i.e. real GDP.

One other measure of national income is **GNI**, or Gross National Income. This measure takes into account the income flows between countries and reflects the **incomes of people in the country** rather than the **output of the country**. (GNP is an older version of GNI)

Term		Definition
<b>GDP</b>	Gross Domestic Product	The value of the output of all goods and services produced within a country over a period of time.
<b>GNI</b>	Gross National Income (previously known as <b>GNP</b> or <b>Gross National Product</b> )	GDP + income residents have received from abroad (in the form of interest, rent, profits or dividends) – income leaving the country. i.e. $\text{GNI} = \text{GDP} + \text{net income from abroad}$ .

GDP is based on location, i.e. the value of everything produced within a country's borders whereas GNI is the value produced by all the citizens of a country.



### Why GNI may differ from GDP

The UK has many foreign multinational companies operating within its borders. If a Japanese car manufacturer in the UK makes a £50m profit, which is sent back to Japan, then the GDP of the UK would be £50m greater than the GNI.

## **When is GNI used rather than GDP?**

1. GNI is considered a more accurate measure of the income available to a country because of the growing size of remittances (income flows between countries) in the global economy and also the importance of international aid payments. For example, because of remittances from abroad, GNI in the Philippines greatly exceeds GDP. For this reason the United Nations uses GNI rather than GDP in calculating the **Human Development Index** which compares levels of development of countries.
  
2. GNI has also used as the basis for a large proportion of the UK's contribution to the EU budget.

## **Questions**

### **Case study1: GDP vs GNI**

Gross National Income accounts for (income) flows in and out of the country. For many countries, the flows tend to balance out, leaving little difference between GDP and GNI. But not so for Ireland, as outflows of profits and income, largely from global business giants located there, often exceed income flows back into the country. This means that in a GNI ranking, rather than being in the top five, Ireland drops to 17th. In other words, while Ireland produces a lot of income per inhabitant, GNI shows that less of it stays in the country than GDP might suggest. Japan's GNI rank, in contrast, is a little higher than it is for GDP, at 13th, reflecting the effect of strong net financial inflows from firms and workers based abroad.

**Question:** Why is Ireland ranked lower by GNI than by GDP, and why is Japan ranked higher by GNI than by GDP?

### **Case study2: GDP vs GDP per head**

Take Luxembourg's GDP per head. It has been at the top of the OECD rankings for several years now, well ahead of other countries, including the US. To explain the large lead, statisticians point to the 90,000-strong labour force commuting across the border every day from Germany, France, Belgium and the Netherlands, often to work in lucrative financial services. These workers are not counted as part of Luxembourg's population of 450,000. If they were added to this number, then overall GDP per head would be smaller, though still among the highest in the OECD. (*source OECD*)

**Question:** Why does GDP per head exaggerate the national income of Luxembourg?

### **Exercise:**

The table gives data for GDP (at nominal prices), population and prices for 4 years.

Year	GDP (£bn)	Population (millions)	Price Index Year 1=100		
1	100	1.00	100		
2	120	1.20	100		
3	150	1.25	200		
4	200	1.25	250		

Calculate:

- a. GDP per capita at nominal prices
- b. Total GDP at real Year 1 prices

### **Multiple choice**

1.

The table below shows money GDP (Gross Domestic Product) for an economy, expressed as index numbers.

Year	GDP 2010 = 100
2008	90
2009	96
2010	100
2011	105
2012	112

Explain what is meant by GDP

What is the % rate of growth of the economy from 2010 to 2011?

What is the % rate of growth of the economy from 2011 to 2012?

The formula for converting nominal GDP to real GDP is:

$$\text{Real GDP} = \frac{\text{nominal GDP}}{\text{Price index}} \times 100$$

2.

The table below shows the index for nominal national income (GDP) and the price level index (CPI) for a country in 2009 and 2010.

	2009	2010
GDP	100	130
CPI	120	150

According to these figures, between 2009 and 2010 the country's real national income

- A increased.
- B decreased.
- C stayed the same.
- D changed by an amount which cannot be determined without further information.

Show your working:

3.

The following table shows figures for population and index numbers for inflation (CPI) and money national income (GDP at current prices) in the years 2012 and 2013 in an economy.

Year	Population (millions)	Consumer Prices Index (CPI)	GDP at current prices
2012	20	100	100
2013	21	110	105

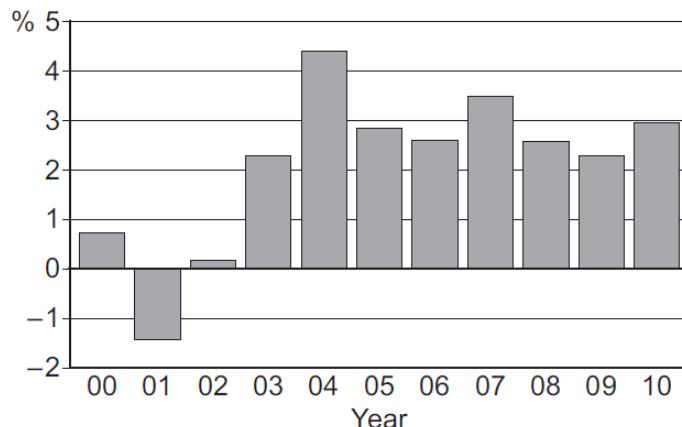
In 2013, compared to 2012, which one of the following statements can be inferred from the data?

- A Real national income rose
- B Money national income rose by 10%
- C Population grew at a faster percentage rate than prices
- D Real national income per head fell

Show your working:

4.

The graph below shows the annual percentage change in an economy's Gross Domestic Product (GDP) between 2000 and 2010, at 2000 prices.



Assuming that inflation was constant at 2% each year, it can be concluded that

- A real GDP decreased between 2007 and 2008.
- B real national output increased each year from 2002.
- C money GDP fell between 2000 and 2002.
- D real GDP was highest in 2004.



Anderton Unit 31

Peter Smith p.112-118

Sloman p.408-410

Economic Review Vol 31 April 2014 'What is Economic Growth'

Economic Review Vol 31 Feb 2014 'Explaining Economic Growth'

## Comparing growth rates

### Specification 2.1.1

d) Comparison of rates of growth between countries and over time

GDP statistics are used to make comparisons of growth rates over time and between countries.

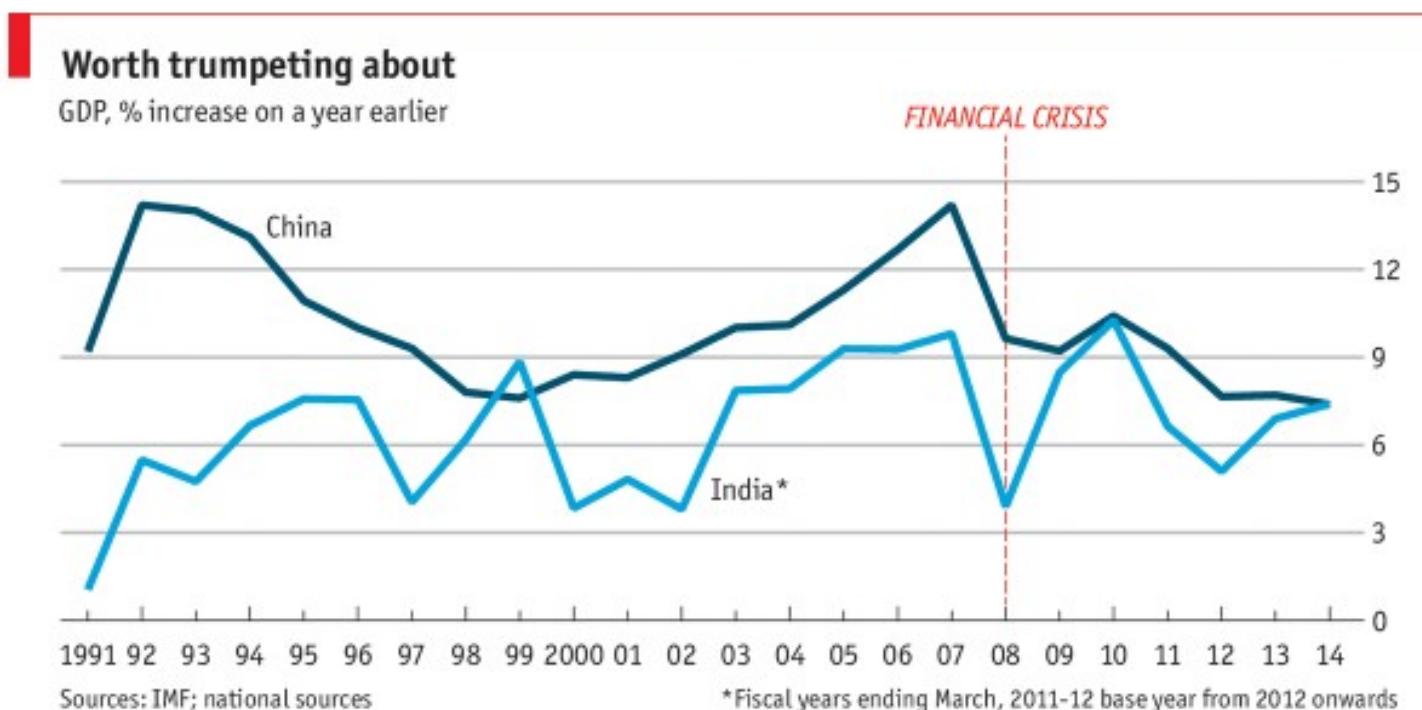
There is great diversity in growth rates for different countries in different parts of the world.

One reliable source is **The World Bank**

<http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>

### Case study 1: India and China

Catching the dragon: India's economy is now growing faster than China's (*adapted from The Economist Feb 9th 2015*)



IN RECENT weeks, economists at the World Bank, the International Monetary Fund and Goldman Sachs, a bank, have tentatively suggested that within a year or two, India's economy might be growing more quickly than China's. The day came sooner than they had imagined. Official statistics published on February 9th revealed that India's GDP rose by 7.5% in 2014, a shade faster than China's economy managed over the same period.

The figures came as a surprise to many a week ago, when India's statistics office released revised GDP figures in an exercise known as "rebasing". Real GDP is typically measured by reference to the prices and structure of the economy in a base year. Over time this one-year snapshot of the economy becomes less relevant and the GDP figures less accurate. So the base year is changed periodically. For India, it changed

on January 20th from 2004-05 to 2011-12. Partly as a result of this, GDP growth for 2013-14 was revised up from 5.1% to 6.9%.

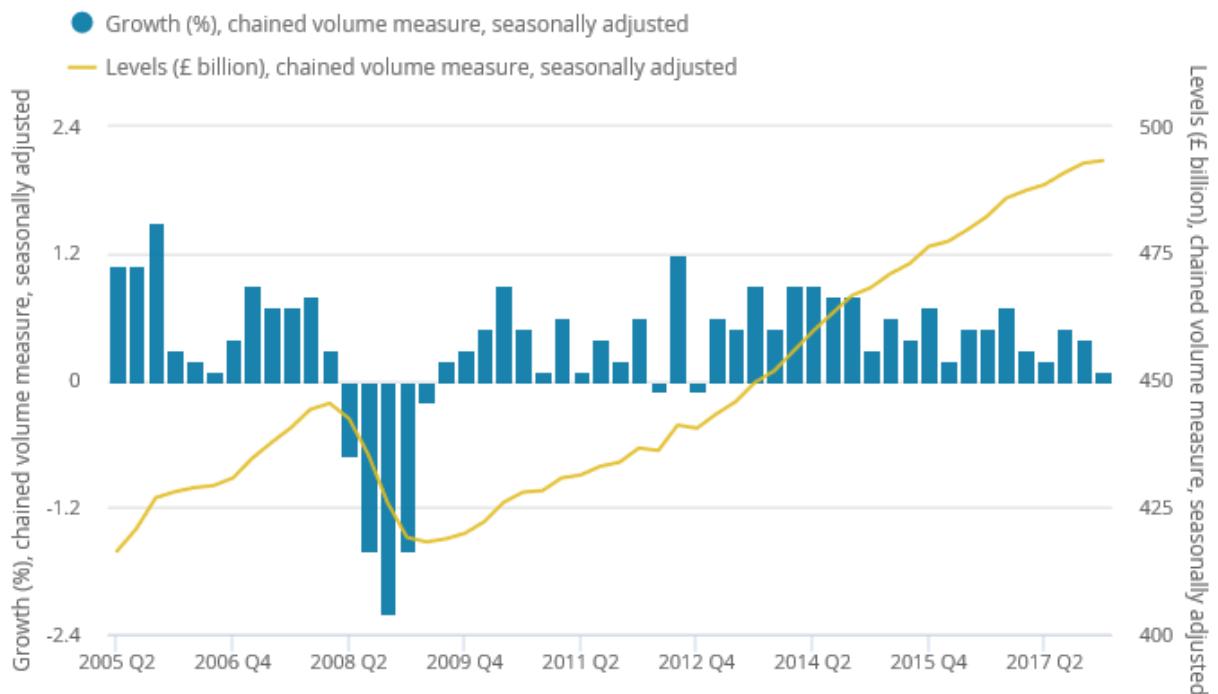
This looked at odds with other indicators, which suggested the economy was much weaker at that time. But the one thing economists agree on is that the economy is doing better now than it was in 2013. Indeed India has been a rare bright spot among emerging markets.

**Questions:**

1. How does growth in India and China compare in 1991, 2007 and 2014?
2. What is the significance of changing the base year for price level adjustments to GDP figures?
3. Why is it important that GDP growth is calculated accurately?

## Case study 2: UK growth over time

Chart 1



Source: Office for National Statistics

### Questions:

1. Using Chart 1, comment on changes in the level of GDP between 2005 and 2017
2. Using Chart 1, comment on the changing rate of growth in the UK from 2005-2017

## Purchasing power parity adjustments

e) Understanding of Purchasing Power Parities (PPPs) and the use of PPP-adjusted figures in international comparisons

The rate at which the currency of one country would have to be converted into that of another country to buy the same amount of goods and services in each country.

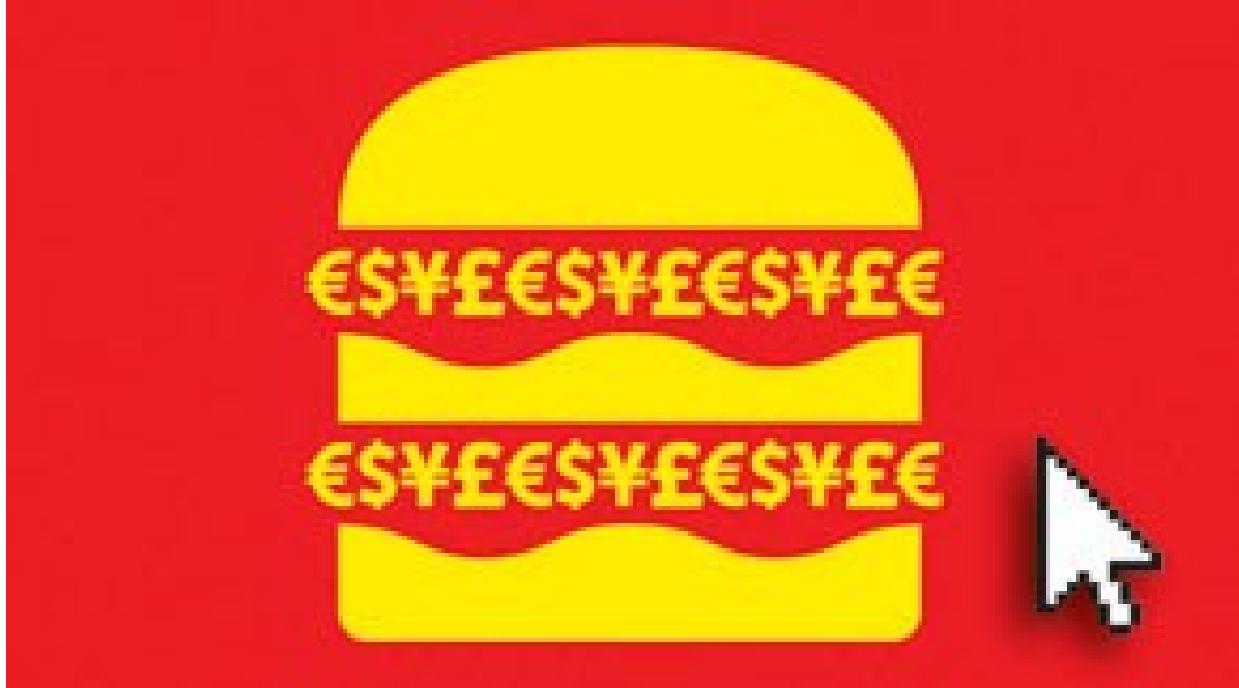
In order to compare living standards between countries the GDP per head of each country is converted in \$'s at current market exchange rates. However, this gives an inaccurate indicator of the ability to buy goods and services in different countries as \$1 will buy a different amount of goods in different countries. For example, you would need only \$ 2.77 to buy a Big Mac in China but \$4.79 in the US. In Norway it would cost \$6.30. <http://www.economist.com/content/big-mac-index>

The cost of living is generally higher in developed countries than in developing countries so without some adjustment, GDP statistics would underestimate living standards in developing countries.

Each year, the Economist calculates the Big Mac Index showing how much exchange rates need to be adjusted in order to show **purchasing power parity**. The HDI makes similar adjustments in calculations of national income as an indicator of living standards.

The purchasing power of a currency is a measure of the goods and services that can be bought.

The Economist introduced the Big Mac Index in 1986 as a light-hearted way of comparing living costs between countries.



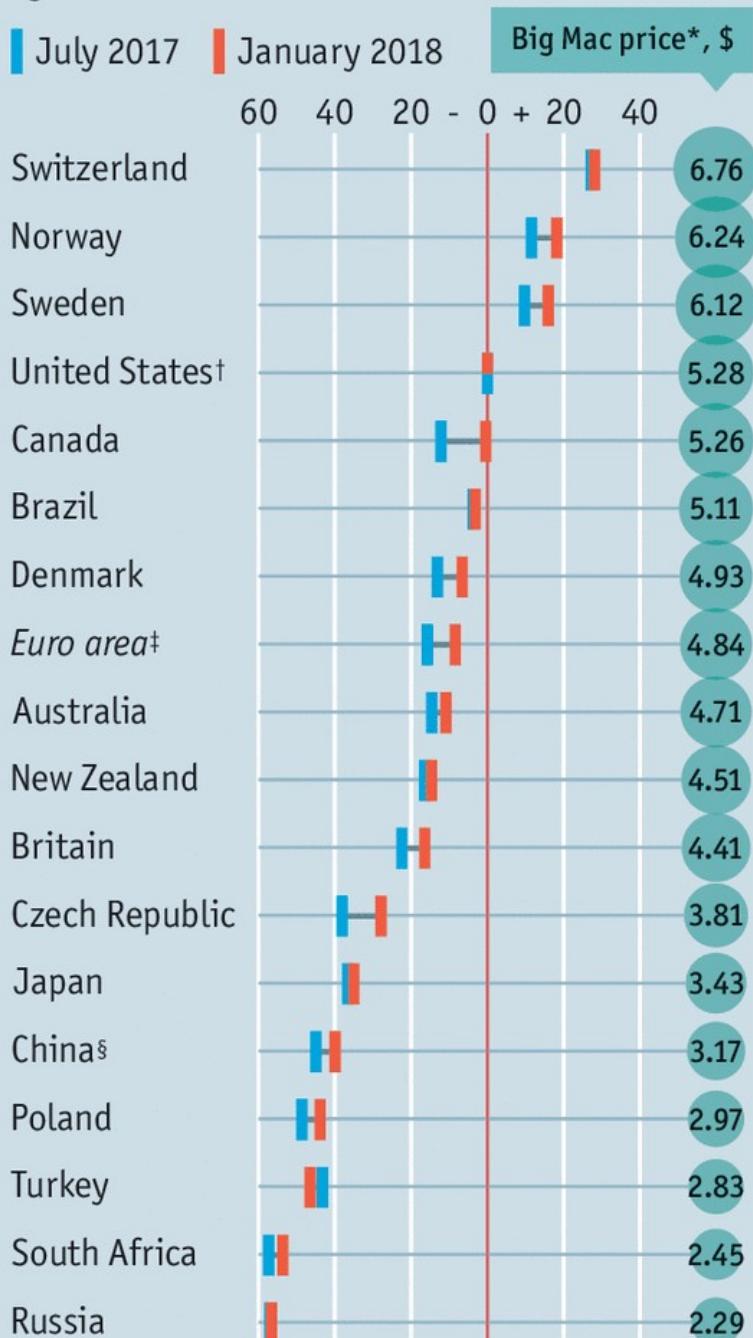
The theory of purchasing-power parity (PPP), states that in the long run exchange rates should move towards the rate that would equalise the prices of an identical basket of goods and services (in this case, a burger) in any two countries. For example, the average price of a Big Mac in America in January 2018 was \$5.28; in China it was only \$3.17 at market exchange rates. So the "raw" Big Mac index says that the yuan was undervalued at that time.

Why are comparisons made using a big mac?

Which are the most overvalued and undervalued currencies according to the table?

## The Big Mac index

Local currency under(-)/over(+) valuation  
against the dollar, %



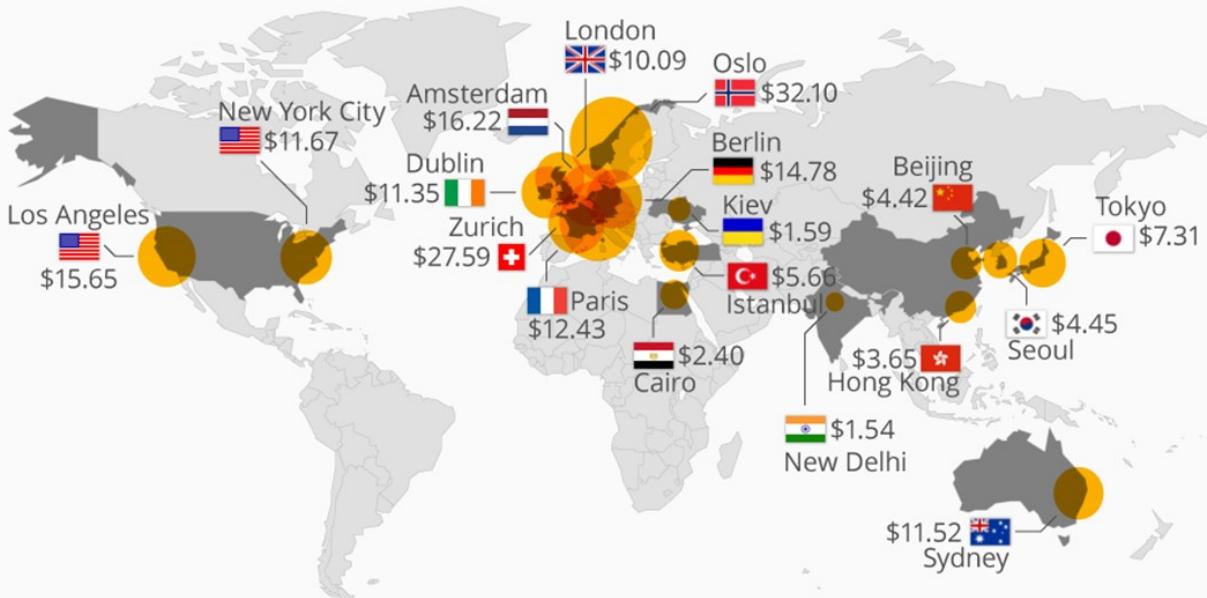
\*At market exchange rates (Jan 17th 2018)

†Average of four cities    ‡Weighted average of member countries    §Average of five cities

Sources: McDonald's; *The Economist*

# The Cities With The Highest & Lowest Taxi Fares

Average cost of a three-mile taxi trip in selected global cities in 2015



\*taxi fare includes a three-mile ride during the day within city limits, including a service tip

Source: UBS Prices And Earnings 2015

statista

Suggest

reasons for the large differences in taxi fares between cities.

How does this data suggest the need for purchasing power parity adjustments before making such comparisons?

The table below shows GDP per capita at purchasing power parities (PPPs) for a selection of European countries in 2013.

Country	GDP per capita (US\$, at PPPs, 2013, rounded)
UK	38 500
Spain	33 000
Italy	35 500

(Source: <http://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD>)

Explain each of the terms with reference to the data above:

- per capita

- b) in US\$
- c) 2013

## Standard of living

### Specification 2.1.1

#### Exam questions:

Explain how the standard of living may be measured.

Assess the likely impact of a reduction in households' real income on the standard of living in the UK.

There are a number of possible definitions including:

- The amount of goods and services that households have access to
- Financial health of a population measured by income or consumption level per head
- A measure of welfare of people living in an economy

#### Reasons why a rise in national income is likely to mean a rise in living standards:

- Households can afford more goods and services
- Households can afford better housing and food consumption
- Governments can afford to provide more public services such as education and health care
- Households can afford to work fewer hours and take holidays

#### Reasons why a rise in national income may not improve living standards:

- A rise in pollution, deterioration of the environment
- More hours worked may be the cause of the rise in national income
- Rising congestion on the roads
- Higher levels of stress



In what form is the data provided?

How does the UK compare with other EU countries?

## Changing Relative Per Capita GDP for EU - 2003-2013

Index (EU28 = 100)	GDP (PPS) 2003	GDP (PPS) 2013	Index (EU28 = 100)	GDP (PPS) 2003	GDP (PPS) 2013
Austria	127	128	Italy	112	99
Belgium	123	119	Latvia	45	64
Bulgaria	33	45	Lithuania	48	73
Croatia	56	61	Luxembourg	240	257
Cyprus	94	89	Malta	82	86
Czech Republic	77	82	Netherlands	133	131
Denmark	124	124	Poland	48	67
Estonia	52	73	Portugal	78	79
Finland	115	113	Romania	29	55
France	111	107	Slovakia	53	75
Germany	116	122	Slovenia	82	82
Greece	93	73	Spain	100	94
Hungary	62	66	Sweden	127	127
Ireland	141	130	United Kingdom	123	109

Changes in per capita GDP for member nations of the European Union

How does the standard of living ranking compare with relative GDP per head?



Anderton P. 158-159; P.173-4

Peter Smith

## Problems of using GDP statistics to make comparisons of living standards over time and between countries.

### Specification 2.1.1

f) The limitations of using GDP to compare living standards between countries and over time

#### Exam questions:

Discuss two problems of comparing the economic growth of the UK and developing countries using GDP as a measure

Explain two differences of comparing living standards between countries

**Watch the video clip and make notes of the points made by Stiglitz**

<http://www.youtube.com/watch?v=QUaJMNTW6GA>

The use of GDP statistics is a starting point for making comparisons of living standards between countries.

Look at the GDP of each of the countries below. In each case, calculate their GDP per capita:

Country	GDP(\$bn)	Population	Answer
Canada	1793.80	35.16 million	
France	2902.33	66.03 million	
Germany	3820.46	80.62 million	
Italy	2129.28	59.83 million	

Source: IMF

By taking **real GDP per capita** with adjustments for **purchasing power parity** we are taking into account the rate of inflation, population and the cost of living in each country.

GDP then gives us a good indication of the amount of goods and services available per head and will be an indicator of levels of consumption.

However, there are a number of problems with the use of GDP for making such comparisons:

*Expand on each of the following reasons*

1. Some output is unrecorded in all countries, for 2 reasons

Non-marketed output

The 'hidden' or 'informal' economy (*see articles below*)

2. Production is not the same as consumption, which is a better guide to living standards

3. GDP ignores external costs of production

4. GDP per head ignores the distribution of income

## The shadow economy (*extracts from IEA discussion paper*)

Official national income statistics (for GDP or GNI) do not include information on ‘unofficial’ or unpaid work (voluntary work). Measurement of the shadow economy is very difficult as it requires estimation of economic activity that is deliberately hidden from official transactions (for example to evade tax or because it is illegal). Surveys typically underestimate the size of the shadow economy but econometric techniques can now be used to obtain a much better understanding of its size.



It is estimated that the shadow economy constitutes approximately 10 per cent of GDP in the UK; about 14 per cent in Nordic countries and about 20–30 per cent in many southern European countries.

The number of participants in the shadow economy is very large. Although up-to-date figures are not available, at the end of the twentieth century up to 30 million people performed shadow work in the EU and up to 48 million in the OECD. Reliable detailed studies are not available for many countries. In Denmark, however, the latest studies suggest that about half the population purchases ‘shadow’ work. In some sectors – such as construction – about half the workforce is working in the shadow economy, often in addition to formal employment. Only a very small proportion of shadow economy workers can be accounted for by illegal immigrants in most countries.

Given that the shadow economy constitutes a high proportion of national income, and varies between less than 8 per cent of national income and over 30 per cent of national income in OECD countries, official national income statistics can often be misleading. Comparisons are made even more difficult because some countries adjust figures for the shadow economy (for example, Italy) and others do not.

In less developed countries, the informal sector constitutes typically between 25 and 40 per cent of national income and represents up to 70 per cent of non-agricultural employment.

<http://www.iea.org.uk/sites/default/files/publications/files/IEA%20Shadow%20Economy%20web%20rev%207.6.13.pdf>

Table 6 Size of the shadow economy (% of official GDP) in 21 OECD countries

OECD countries	Shadow economy (in % of official GDP)										
	Average 1989/90	Average 1994/95	Average 1997/98	Average 1999	Average 2001	2003	2005	2007	2009	2011	2012
1. Australia	10.1	13.5	14.0	14.4	14.3	13.9	13.7	13.5	n/a	n/a	n/a
2. Austria	6.9	8.6	9.0	10.0	9.7	9.8	9.8	9.5	8.5	8.0	7.6
3. Belgium	19.3	21.5	22.5	22.7	22.1	22.0	21.8	21.3	17.8	17.1	16.8
4. Canada	12.8	14.8	16.2	16.3	15.9	15.7	15.5	15.3	n/a	n/a	n/a
5. Denmark	10.8	17.8	18.3	18.4	18.0	18.0	17.6	16.9	14.3	13.8	13.4
6. Finland	13.4	18.2	18.9	18.4	17.9	17.7	17.4	17.0	14.2	13.7	13.3
7. France	9.0	14.5	14.9	15.7	15.0	15.0	14.8	14.7	11.6	11.0	10.8
8. Germany	11.8	13.5	14.9	16.4	15.9	16.3	16.0	15.3	14.6	13.7	13.3
9. Greece	22.6	28.6	29.0	28.5	28.2	27.4	26.9	26.5	25.0	24.3	24.0
10. Ireland	11.0	15.4	16.2	16.1	15.9	16.0	15.6	15.4	13.1	12.8	12.7
11. Italy	22.8	26.0	27.1	27.8	26.7	27.0	27.1	26.8	22.0	21.2	21.6
12. Japan	8.8	10.6	11.1	11.4	11.2	11.2	10.7	10.3	n/a	n/a	n/a
13. Netherlands	11.9	13.7	13.5	13.3	13.1	13.3	13.2	13.0	10.2	9.8	9.5
14. New Zealand	9.2	11.3	11.9	13.0	12.6	12.2	12.1	12.0	n/a	n/a	n/a
15. Norway	14.8	18.2	19.6	19.2	19.0	19.0	18.5	18.0	n/a	n/a	n/a
16. Portugal	15.9	22.1	23.1	23.0	22.6	23.0	23.3	23.0	19.5	19.4	19.4
17. Spain	16.1	22.4	23.1	23.0	22.4	22.4	22.4	22.2	19.5	19.2	19.2
18. Sweden	15.8	19.5	19.9	19.6	19.1	18.7	18.6	17.9	15.4	14.7	14.3
19. Switzerland	6.7	7.8	8.1	8.8	8.6	8.8	8.5	8.1	n/a	n/a	n/a
20. UK	9.6	12.5	13.0	12.8	12.6	12.5	12.4	12.2	10.9	11.0	10.3
21. USA	6.7	8.8	8.9	8.8	8.8	8.7	8.5	8.4	n/a	n/a	n/a
Unweighted average for 21 OECD countries	12.67	16.16	16.82	17.03	16.65	16.6	16.4	16.06	n/a	n/a	n/a

1. Why does the size of the shadow economy vary so much between countries?
  
  
  
  
  
  
  
  
  
2. What types of industry/activity are most likely to contribute to the shadow economy in a developed country?
  
  
  
  
  
  
  
  
  
3. What does the data imply about making GDP and growth comparisons between countries?

**Sex, drugs and GDP: Italy's inclusion of illicit activities in its figures excites much interest**  
*(The Economist May 2014)*

*Rolex values your time*



THE announcement on May 22nd by Istat, Italy's statistical body, that from October it would include drug trafficking, prostitution, and alcohol-and-tobacco smuggling in its economic-output numbers has generated a stream of sniggering headlines. To some, it smacks of 1987, when Italy started taking account of its shadow economy, the off-the-books business which makes up about a fifth of Italian GDP. As a result, the economy grew by 18% overnight, surging past Britain to be the West's fourth-largest economy. The event was hailed as *il sorpasso* (the overtaking) and the source of much national joy, until two decades of economic mismanagement sent Italy tumbling back down the league tables.

In fact, then as now, Italy was merely one of the first countries to announce its compliance with international accounting standards. Reporting illegal economically productive activity in which all parties take part voluntarily is required under EU rules. But as the guidelines have not so far outlined how to measure drug deals and fake cigarettes, and as such things are by their nature difficult to gauge, few countries comply. That will change from this autumn, when an update of the ESA will refresh guidelines on calculating revenues from the seedier side of the economy.

Some countries already include dope and bootleg booze in their statistics: in the Netherlands, for example, cannabis sales may be counted as coffee-shop revenues. So the aim is to create greater comparability in the GDP figures of member states, in part because this is the basis on which EU funds are distributed.

France's statistical body, estimates that the ESA's update will lead to an increase in French GDP of 3.2%— equivalent to a couple of years' growth at current rates. But little of that is due to an uptick in debauchery: the accounting rule update also reclassifies research and development as an investment rather than a cost, among other things which will attract rather less public attention.

Britain's Office of National Statistics was due to release its estimate of the new rules' impact as *The Economist* went to press. Italy is still working on its figures, but the treasury says effects will be negligible. Tracking such activities is a difficult business. Enrico Giovannini, a professor of economic statistics at the University of Rome, quips that non-statisticians often suggest that measuring happiness and well-being is a tricky task. His response: "Have you ever tried to measure GDP?"

#### **4. What do you think will be the impact of this new ruling on the accuracy of GDP statistics?**

### **How do we value voluntary work?**

Well, the latest figures from the ONS values the 'output' of regular formal volunteers at **£23.9bn** (with earlier work by Volunteering England putting the output figure for all formal and informal volunteers at **£45.1bn**). In addition, the DWP and Cabinet Office recently estimated that the wellbeing value to frequent formal volunteers themselves is around **£70bn**. So, combining both the value to beneficiaries and volunteers the figure is around **£100bn** (if not more!). But what are we to make of these figures?

Unfortunately, all attempts suffer from the fundamental flaw of monetising an essentially social phenomenon. Yet, if used sensibly, these figures can be vital tools for understanding volunteering and its impact. Perhaps more urgently, they can help to combat the consistent and systematic undervaluing of non-economic activities like volunteering in the UK and ensure the recognition – in organisations, from policymakers and wider society – that volunteers deserve. (NCVO)

#### **5. What are the arguments for and against including a value for voluntary work in GDP statistics?**

### **Case study: Ghana GDP (extract from 'GDP, a brief but affectionate history' by Diane Coyle)**

Aid organisations use a threshold in terms of real GDP per capita set by the World Bank to designate whether a country is 'low income' or 'middle income', and this in turn determine the kind of assistance it gets in aid and cheap loans. Until November 2010, Ghana was considered 'low income', that is a poor country. But between 5 and 6 November 2010, its GDP increased by 60% overnight, turning it officially into a 'low-middle-income' country. The reality had not changed, but the GDP statistics had, because the country's statistical agency had updated the weights used in calculating the price index, and consequently real GDP, for the first time since 1993. Nigeria, Uganda, Tanzania, Kenya, Malawi and Zambia are currently

midway through the same kind of exercise...The trouble with using old weights is that the structure of the economy changes quite dramatically over time.

## Different measures of average income: mean vs median

### Mean:

The mean is an average, one of several that summarise the typical value of a set of data.

The mean is the grand **total divided by the number of data points**.

### Median:

The median is the **middle value** in a sample sorted into ascending order. If the sample contains an even number of values, the median is defined as the mean of the middle two.

### Exercise:

Calculate the mean and the median from this range of values

3, 7, 5, 13, 20, 23, 39, 23, 40, 23, 14, 12, 56, 23, 29

Mean =

Median =

## Is it better to use the mean or the median?

The short answer is "it depends" - to know which you should use, you must know how your data is distributed. The mean is the one to use with **symmetrically distributed data**; otherwise, use the median. If you follow this rule, you will get a more accurate reflection of an 'average' value.

For example, when looking at earnings, it is the case that more people earn low salaries than high ones, one reason being that a large proportion of the population works part-time - so the data will not be symmetrically distributed. Therefore the mean is **not** the best 'average' to use in this case as illustrated in the graph below

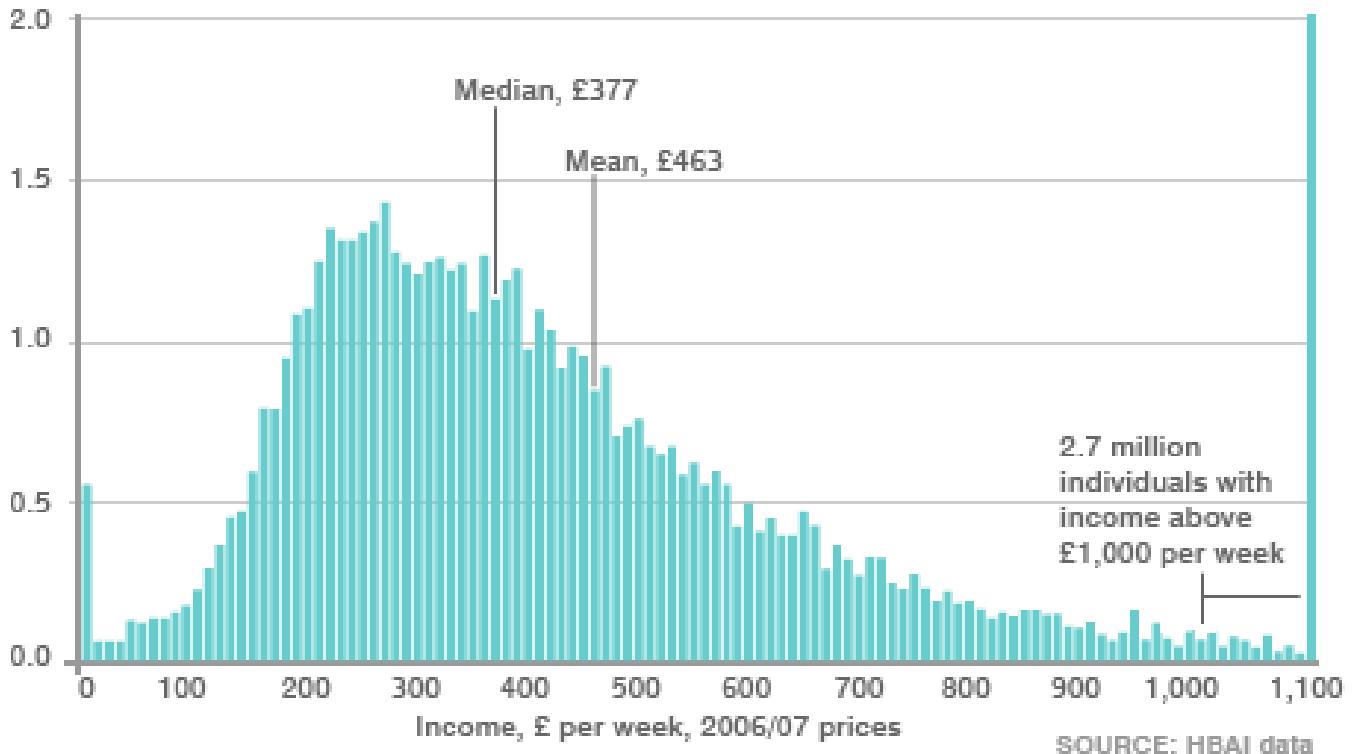
The median, on the other hand, really is the middle value. 50% of values are above it, and 50% below it. So when the data is not symmetrical, this is the form of 'average' that gives a better idea of any general tendency in the data.

The mean GDP value, i.e. total GDP divided by the population, gives no indication of the distribution of income in a country and whether it is getting more or less uneven.

It is possible for GDP per head to rise but the median income in a country fall. This has happened in the USA in recent years.

## THE UK INCOME DISTRIBUTION IN 2006 / 7

Number of individuals (millions)



SOURCE: HBAI data

The chart above is a frequency chart. It shows how many individuals there are at a particular level of income per week. Its skewed shape shows that there are more individuals on lower incomes than higher incomes, i.e. there is not a symmetrical distribution of income. For this reason, the median level of income is a better indicator of the income of the average individual and is below the mean level of income.

The **mean GDP value**, i.e. total GDP divided by the population, gives no indication of the distribution of income in a country and of whether the distribution is getting more or less uneven.



Anderton Unit 31

Peter Smith

Sloman p. 410-412

## The causes of growth

### Specification 2.5.1

- a) Factors which could cause economic growth
- b) The distinction between actual and potential growth
- c) The importance of international trade for (export-led) economic growth

### Exam questions

With reference to fig 4, discuss two factors that might enable a country, such as China, to achieve a rapid rate of economic growth

**In the short run**, growth of GDP is caused by an increase in aggregate demand and therefore by increases in any of the components of AD

Where AD =

The largest component is consumer spending, so a rise in C is a likely cause of growth

[www.bbc.co.uk](http://www.bbc.co.uk) 2013

Economic growth in the UK was driven by consumer spending in the third quarter of the year, Office for National Statistics (ONS) figures show. The ONS kept its estimate for economic growth in the quarter at 0.8%, which is the fastest pace for three years. Consumer spending, which accounts for nearly two-thirds of the UK's economic activity, also rose by 0.8%, the most since the second quarter of 2010

A rise in AD during a recession will cause a rise in NY but little or no increase in prices

A rise in AD when the economy is close to full capacity will cause inflation and less of an increase in NY

Multiplier effects of rises in exports, investment or government spending will also be part of the process of growth.

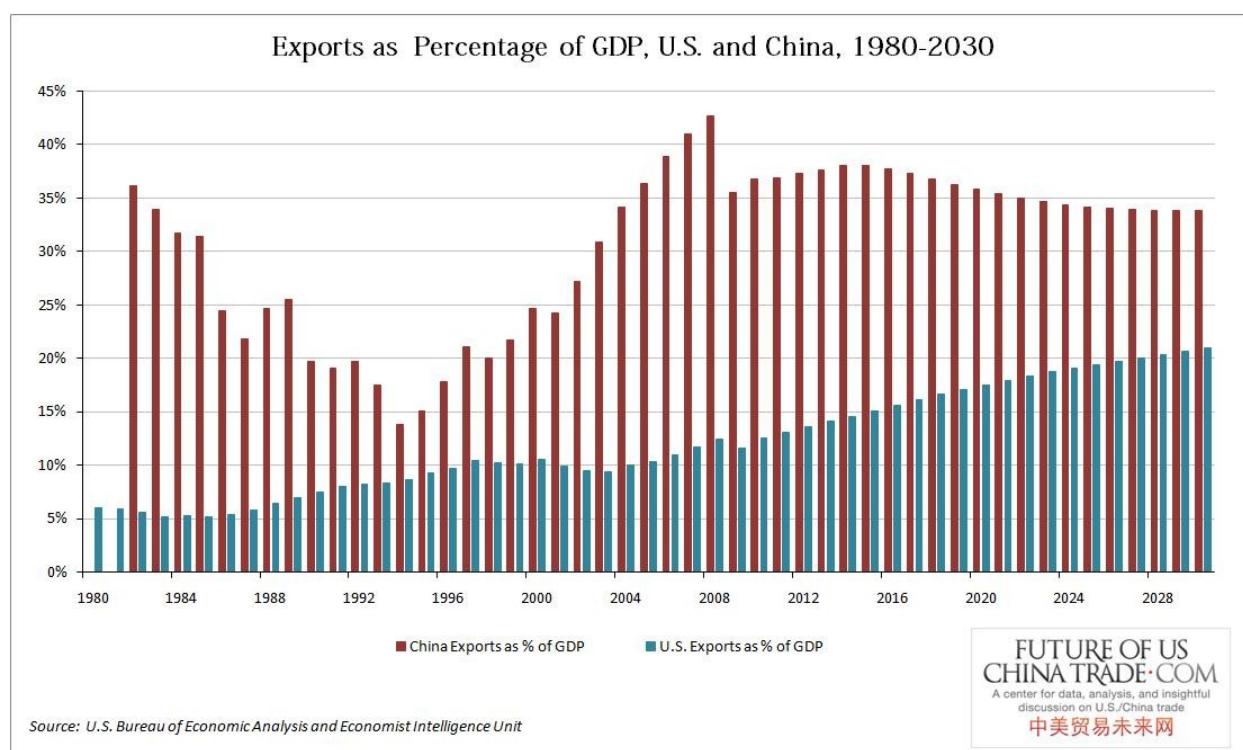
Export-led growth has been an important growth strategy for some countries, like China.

### China's Export-Led Growth Model has Reached its Limits

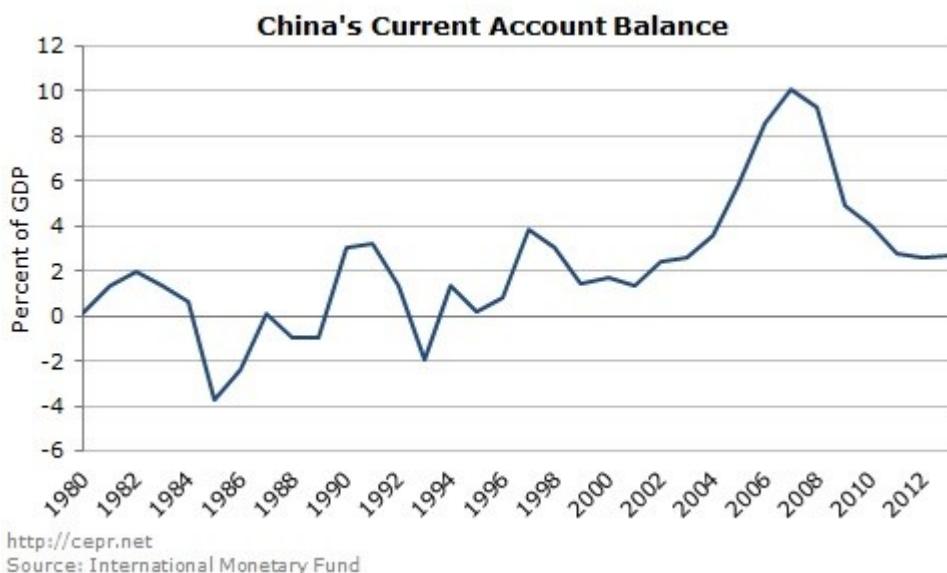
Over the last three decades China has experienced a remarkable transformation, going from being a poor and largely agricultural economy to becoming the world's industrial powerhouse. Strong and relentless economic growth was achieved on the back of productive investment, an ample and industrious labour force, relatively low wages and a parabolic rise in exports. In light of this, economists usually refer to China's economic growth model over the last three decades as investment- or export-driven.

China's growth strategy proved highly successful but its weaknesses became more evident around the time when the global financial crisis erupted and international trade suffered a sudden collapse. As the global leader in international trade, China is critically dependent on the state of the global economy and foreign demand for its products. With prospects for export growth weakening, Chinese optimists hoped for a seamless transition to a sustainable domestic consumption-led growth model but this has proved much easier said than done, with China still pushing the old model beyond its limits. (*Source Euromonitor 2014*)

*Chart 1 Exports as % of GDP (Source: Huffington Post 2012)*



*Chart 2 China's current account balance as a % of GDP (source: IMF)*



**Questions:**

1. What are the sources of China's growth?
2. What are the limitations of export-led growth for China?
3. Using Chart 1 compare (actual and forecast) exports as a % of GDP for China and the US.
4. Using Chart 2 comment on the trends in China's current account balance from 1980 to 2012

## **Causes of long run growth**

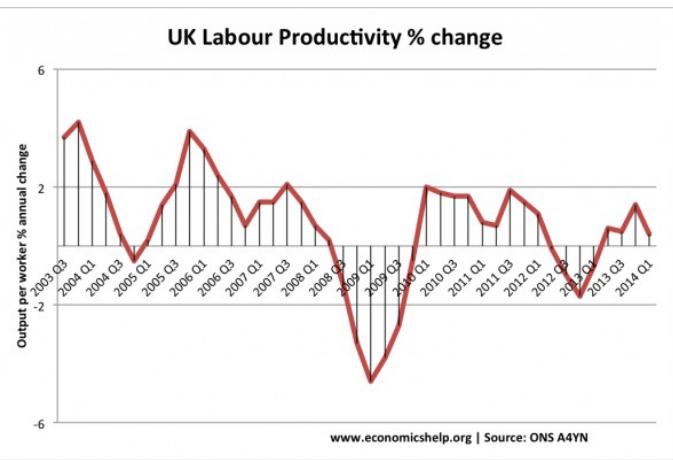
Long run growth is illustrated by an increase in aggregate supply- the effect is a shift to the right of the AS curve.

- An increase in the quantity or quality of the factors of production
- Advances in technology

Examples:

1. Immigration
2. Productivity growth

### Chart 1



### Chart 2



From the two charts above, can you identify a link between productivity changes and economic growth in the UK from 2003-2014?

### 3. Education and training

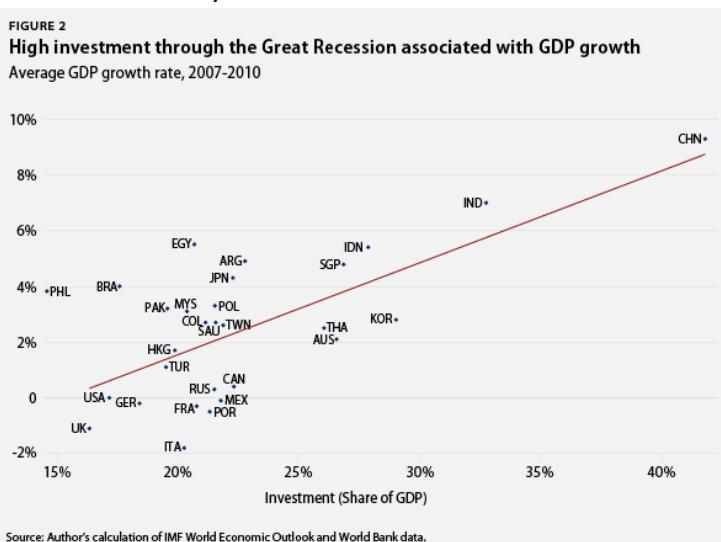
This improves the quality of labour

Education and training leads to rising productivity due to:

- Increasing skill levels and the ability to work more quickly and accurately
- Familiarising workers with equipment
- Improving the ability to solve problems and make decisions
- Improving the ability to work well in teams
- Increasing worker flexibility

### 4. Capital investment

Investment spending increases AD in the short run as it means extra spending on capital equipment- and increases AS in the long run, as it increases the productive capacity of the economy.



What does this scatter diagram suggest?

Anderton Unit 32  
Peter Smith p.173-177  
Sloman p.417-420

## Output gaps

### Specification 2.5.2

- Distinction between actual growth rates and long-term trends in growth rates
- Understanding of positive and negative output gaps and the difficulties of measurement
- Use of an AD/AS diagram to illustrate an output gap (level of spare capacity) in an economy

### Exam questions

With reference to fig 1, explain why economists might consider a negative output gap existed in 2008-9

With reference to fig.2, discuss two likely consequences of the output gap from 2009.

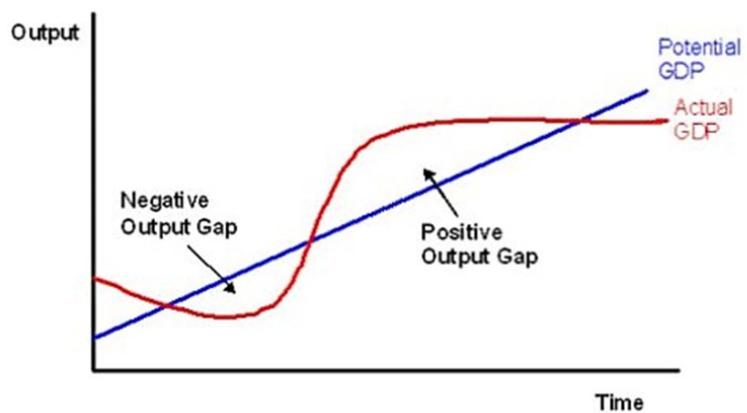
An output gap occurs if there is a difference between actual and potential output in the economy.

There is a **negative output gap** when GDP falls below its potential level (in recession) leaving spare capacity in the economy

Effects include:

- Falling rates of inflation or deflation
- A fall in the current account deficit
- Rising unemployment
- Business failures

There is a **positive output gap** when GDP is above potential output or when nominal GDP continues to grow (driven by rising AD) when the economy is at full capacity



Effects include:

- Inflation (wage and price)
- A rise in the current account deficit

### What is the output gap? (source: IMF 2013)

One thing that concerns economists and policymakers about these ups and downs (commonly called the business cycle) is how close current output is to an economy's long-term potential output. That is, they are interested not only in whether GDP is going up or down, but also in whether it is above or below its potential.

The output gap is an economic measure of the difference between the actual output of an economy and its potential output. Potential output is the maximum amount of goods and services an economy can turn out when it is most efficient—that is, at full capacity. Often, potential output is referred to as the production capacity of the economy.

Just as GDP can rise or fall, the output gap can go in two directions: positive and negative. Neither is ideal. A positive output gap occurs when actual output is more than full-capacity output. This happens when demand is very high and, to meet that demand, factories and workers operate far above their most efficient capacity. A negative output gap occurs when actual output is less than what an economy could produce at full capacity. A negative gap means that there is spare capacity, or slack, in the economy due to weak demand. An output gap suggests that an economy is running at an inefficient rate—either overworking or underworking its resources.

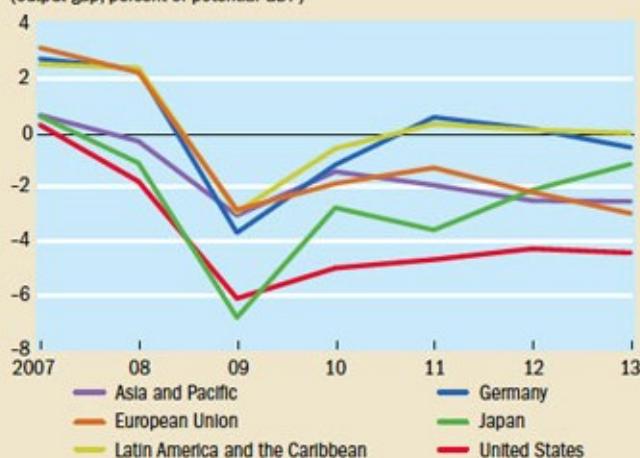
## Significance of the output gap

- Policy implications- a negative output gap will cause unemployment and a positive output gap is an indicator of inflationary pressure.
- As a negative output gap gets smaller and the economy approaches full capacity, the Bank of England will become concerned about the prospects for inflation

### Wasted potential

The severe recession caused most economies to go from a positive output gap, exceeding long-run potential, to a negative output gap in which GDP was below potential.

(output gap, percent of potential GDP)



Source: IMF, World Economic Outlook, April 2013.

Draw an AD/AS diagram to illustrate a negative output gap



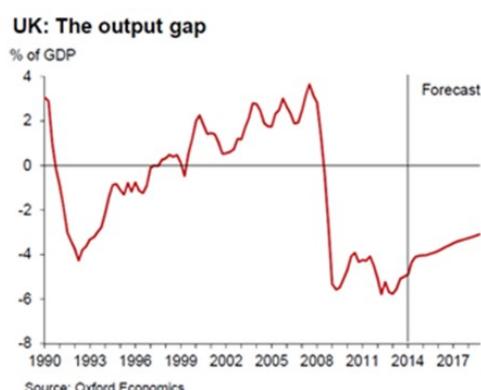
It is very difficult to measure the size of the output gap:

- Unlike actual output, potential output cannot be directly observed, only estimated
- Even actual output may not be completely accurate as GDP statistics are often revised
- It is not always clear how much capacity may be lost during and after a recession when factories are closed and unemployed workers lose their skills

What are the implications of this for policy-makers?



### Question 1:



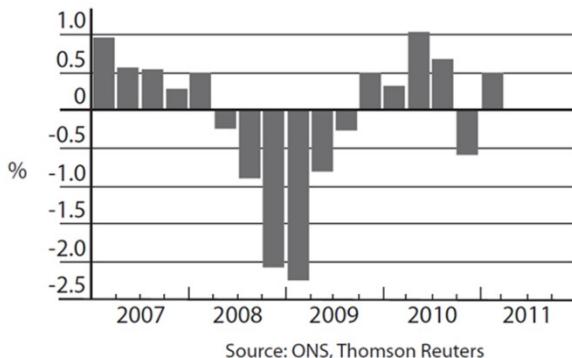
For how long did the UK have a positive output gap prior to the financial crisis in 2008?

Why did the UK not experience inflation in the period 1999-2008? (the NICE era)

To what extent has the UK output gap fallen in size since the financial crisis?

**Question 2:** With reference to Figure 1, explain why economists might consider that a negative output gap existed in 2008-9. Use a relevant diagram in your answer.

Figure 1 UK Real GDP growth, quarter on quarter



Source: ONS, Thomson Reuters

(Source: Adapted from the Financial Times © The Financial Times 2011)

### Question 3

Which one of the following is most likely to result from a growing negative output gap?

- A An increase in the rate of investment.
- B A fall in business confidence.
- C A rise in interest rates.
- D A fall in government spending on welfare benefits.

### Question 4

4

A negative output gap necessarily means that the economy

- A is in recession.
- B is suffering from demand-pull inflation.
- C is operating inside its production possibility frontier.
- D has a productive potential below its current level of Gross Domestic Product (GDP).

### Question 5

When an economy is operating inside its production possibility frontier, it must have a

- A low underlying trend rate of growth.
- B negative output gap.
- C declining labour force.
- D negative rate of economic growth.

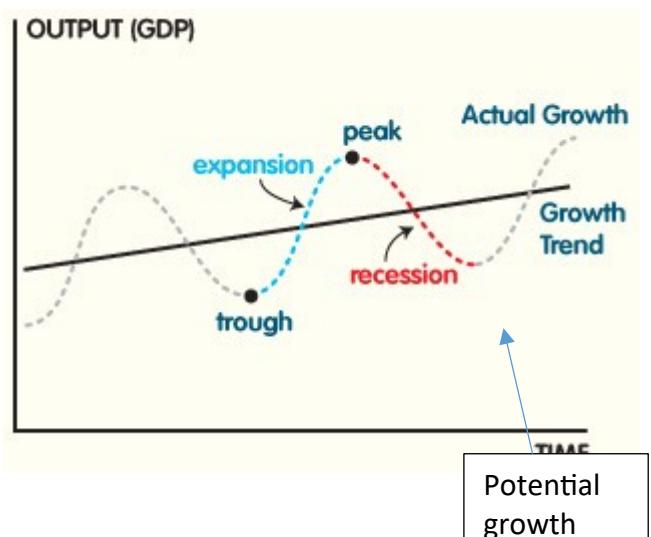
## The trade cycle

Specification 2.5.3

- a) Understanding of the trade (business) cycle
- b) Characteristics of a boom
- c) Characteristics of a recession

### Exam questions:

Using the data, explain what is meant by a recession



The trade cycle is also sometimes called the business cycle or the economic cycle

-**actual** growth fluctuates

-**potential** growth is the long run sustainable growth rate for the economy (about 2.5% for the UK)

-the average or trend rate of growth is a statistical average and varies from country to country

-booms tend to be followed by slowdown or recession

-recession is followed by recovery

### Exercise:

Look at the graph below and summarise how it illustrates recent cyclical activity for the UK

**Tracking the UK Economic Cycle - UK Real National Output**

Quarterly value of real GDP, £ billion measured at constant prices



Source: UK Statistics Commission

## Characteristics of a boom

- Strong and rising AD- caused by rising consumer spending usually
- Employment rises and real wages rise as labour shortages develop
- Increased demand for imports as incomes rise (The UK has a high marginal propensity to import)
- Government tax revenues rise quickly as incomes and spending rise
- Rising productivity as output of firms increases
- Company profits and investment increase as firms are able to charge higher prices with rising sales so profit margins rise
- Cost push inflation results from rising wages and other costs with shortages of inputs
- Demand pull inflation results from AD rising faster than AS

### The 'Lawson boom'

The 'Lawson boom' was a period of rapid growth in the late 1980s, named after the Chancellor of the Exchequer Nigel Lawson. Between 1983 and 1988 the economy was growing above its trend rate of 2.5%. Despite high interest rates consumption and investment continued to grow. A housing boom began to develop which further encouraged consumption. By 1987 the government was convinced it had engineered an 'economic miracle' by its policies and that it could sustain growth of 4% or more. There was a substantial tax-cutting budget in 1987 with the top rate of income tax cut from 60% to 40%. Share prices were rising and unemployment falling.



By 1988 the economy was operating at 5.5% above its productive potential. Imports grew to satisfy the growing level of domestic demand so the current account deficit rose to record levels. As inflation rose the government realised it needed to take action to prevent overheating in the economy and in 1989 increased interest rates to 15%, double the rate of a year earlier.



- a. How did government policy contribute to the boom?
- b. What is meant by 'operating above its productive potential'?
- c. What do you think happened next?

## **Characteristics of a recession**

- Declining demand for output leading to higher levels of spare productive capacity
- Contracting employment / rising unemployment as firms lay-off workers to control their costs
- A sharp fall in business confidence & profits
- A decrease in fixed capital investment spending because there is insufficient demand to justify new capital projects
- De-stocking and heavy price discounting - this leads to lower inflation
- Reduced inflationary pressure in the labour market as unemployment rises
- Falling demand for imports
- Increased government borrowing

## **A brief history of UK recessions**

### **Post war blues: 1920-24**

Britain suffered a colossal boom and bust in the years following the end of the First World War. The economy grew rapidly in 1919, due to the release of pent-up demand, but diminished production capacity after four years of total war meant inflation surged. British goods became uncompetitive on world markets and policy was tightened aggressively by the Bank of England and the Treasury. The result was the biggest peak-to-trough fall in output in 100 years.

### **The Great Depression: 1929-33**

The UK suffered less grievously than Germany or the US after the Wall Street crash of 1929, in part because its economy had already suffered a big slump in the early 1920s and grew only modestly for the rest of the decade. There was, however, a fall in output on a similar scale to that seen in 2008-09. The road to recovery began in September 1931, when Britain was the first country to come off the Gold Standard, allowing the pound and interest rates to fall. Cheap money boosted industry and house building.

### **Stagflation: 1973-76**

The west's long postwar boom came to an end in the autumn of 1973, when the Yom Kippur war resulted in a fourfold increase in oil prices. Britain already had inflationary problems because of the Heath government's attempts to boost growth and a miners' strike led to a three-day week in early 1974. Unemployment and inflation rose, and the annual increase in the cost of living hit a postwar peak of 26% by the summer of 1975.

### **Manufacturing meltdown: 1980-81**

Margaret Thatcher came to power in 1979 convinced that radical action was needed to reverse Britain's relative economic decline. Interest rates were raised in an attempt to tackle inflation, with the pound – already rising as a result of the UK's booming North Sea oil revenues – allowed to appreciate further on the foreign exchanges. Even so, the annual inflation rate rose to 20% in Thatcher's first year in office and this, together with high borrowing costs and cheap imports drove 20% of manufacturing to the wall.

### **Lawson's legacy: 1990-92**

By the mid-1980s, Britain was growing strongly, unemployment was coming down and inflation was below 2.5%. But under Nigel Lawson's stewardship, a property frenzy was allowed to develop, fuelled by low interest rates and tax cuts. After hitting a trough of 7.5% in 1988, interest rates doubled in the next year, with the result that unemployment rose above 3 million for the second time in a decade and house repossession hit record levels. The bust was intensified by Britain's membership of the Exchange Rate Mechanism, which prevented interest rates from being cut.

## **Banking bust: 2008-9**

While not as deep as the slump of the early 1920s, the recession that began between the run on Northern Rock in September 2007 and the collapse of Lehman Brothers a year later proved the most stubborn in Britain's modern history (*Source: The Guardian*)

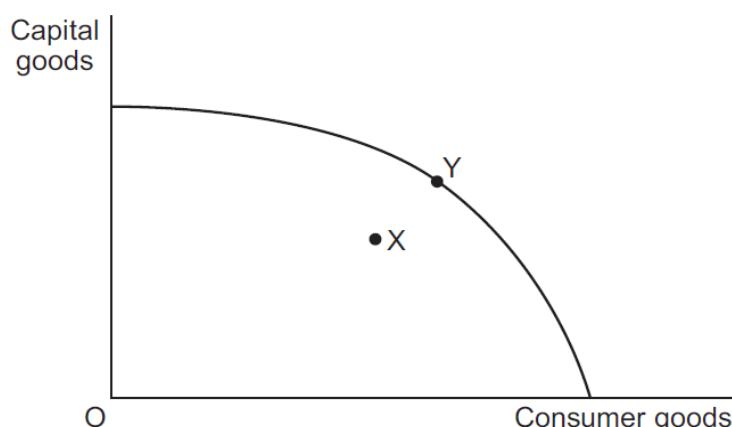


### **Exercises**

1. Identify causes of recessions suggested in the text above

2. a.

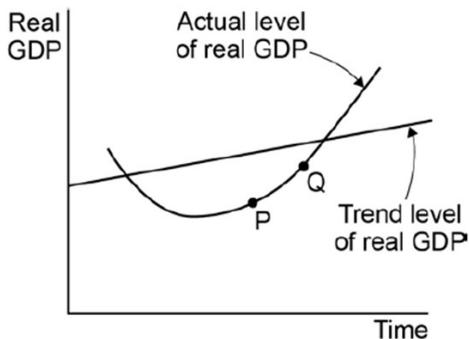
The diagram below shows an economy producing at point X within its production possibility frontier.



All other things being equal, which one of the following would be most likely to move the economy to point Y?

- A** An increase in interest rates and a reduction in exports
  - B** An increase in household saving and a reduction in investment
  - C** An increase in imports and a reduction in exports
  - D** An increase in government spending and a reduction in the exchange rate
- b. What type of growth is taking place when the economy moves from X to Y?

- c. What phase of the trade cycle is this economy experiencing?
3. The diagram below shows the actual level of real GDP and the trend level of real GDP over time for an economy.



Between the points P and Q, which one of the following is most likely to be correct?

- A The actual rate of economic growth is rising while the level of unemployment is falling.
- B The actual rate of economic growth is negative while the rate of inflation is falling.
- C The trend rate of economic growth is rising while the balance of payments on current account is deteriorating.
- D The trend rate of economic growth and the output gap are both positive.
4. An economy is most likely to be in the boom phase of the economic cycle when there is a rise in
- A the demand for imports.  
B the savings ratio.  
C spare capacity.  
D business pessimism.
5. An economy is currently operating with a negative output gap. In the short run, if the rate of growth of aggregate demand is positive but less than the rate of growth of productive capacity, then the economy is most likely to experience
- A a decrease in output.  
B an increase in unemployment.  
C a decrease in its trend rate of growth.  
D a decrease in exports.



## The impact of economic growth

*Specification 2.5.4*

a) The benefits and costs of economic growth and the impact on:

- o consumers
- o firms
- o the government
- o current and future living standards

### Exam questions:

With reference to Extract 1 and your own knowledge, explain two likely benefits of economic growth.

Evaluate the benefits of economic growth to the UK

### Impact on consumers/households

- ❖ Money incomes, real incomes and disposable incomes will rise
- ❖ More people employed so higher household incomes
- ❖ Households can afford more consumer durables, better quality housing, holidays
- ❖ Governments able to spend more on health care, education, housing etc
- ❖ Better standards of nutrition
- ❖ Elimination of poverty

### Impact on firms

- As spending rises with economic growth, sales will rise and business profits will rise.
- Firms are able to earn more profit per item sold.
- Scope for introducing new products
- Entrepreneurs will be more successful in starting new businesses when there is growth

### Impact on the government

*Summarise the impact on government revenue and spending*

### Impact on current and future living standards

Growth may require more resources devoted to investment and fewer to consumer spending in the short run but higher living standards in the long run. Illustrate this using two PPF diagrams

Short run

Long run

## The growth debate

Summarise the benefits of growth from the points made on the previous page.



GETTY IMAGES



SHORPY

Additional benefits:

- ✓ More employment as jobs are created
- ✓ Funds available to spend on improving the environment
- ✓ Funds available to spend on research and development

- ✓ Funds available to spend on better public services e.g. health care, eradication of diseases
- ✓ Ability to achieve a redistribution of income

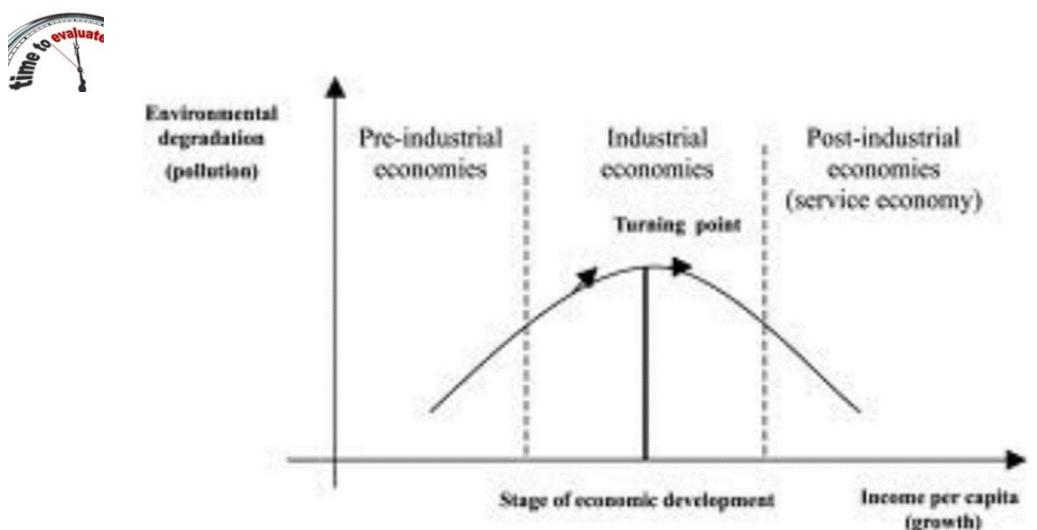
## The costs of growth

Watch 'the impossible hamster'. What does this suggest about economic growth?

<https://www.youtube.com/watch?v=bqz3R1NpXzM>

### 1. Resource depletion and environmental degradation:

- Non-renewable resources become used up and are not available to future generations e.g. fossil fuels, minerals
- Industrial pollution
- Poor air quality
- Waste
- Irreversible damage from climate change



Environmental  
Kuznets curve

Source: Panayotou (1993)

What does this model suggest?

## Case study: China's growth and the environment



<https://www.youtube.com/watch?v=t77bLtIck2g>

summarise points made

2. Consumerism- an ideology that encourages the acquisition of goods and services in greater amounts.

Is growth just about having more 'stuff'? Black Friday 2014

<http://www.theguardian.com/business/2014/nov/28/black-friday-sales-police-attend-supermarkets-amid-scuffles>

### 3. Inflation

Growth caused by rising AD can only be sustained if AS is rising too, otherwise inflation will result when the economy reaches full capacity.

For example, as a result of the Lawson boom inflation peaked at over 10% in September 1990.

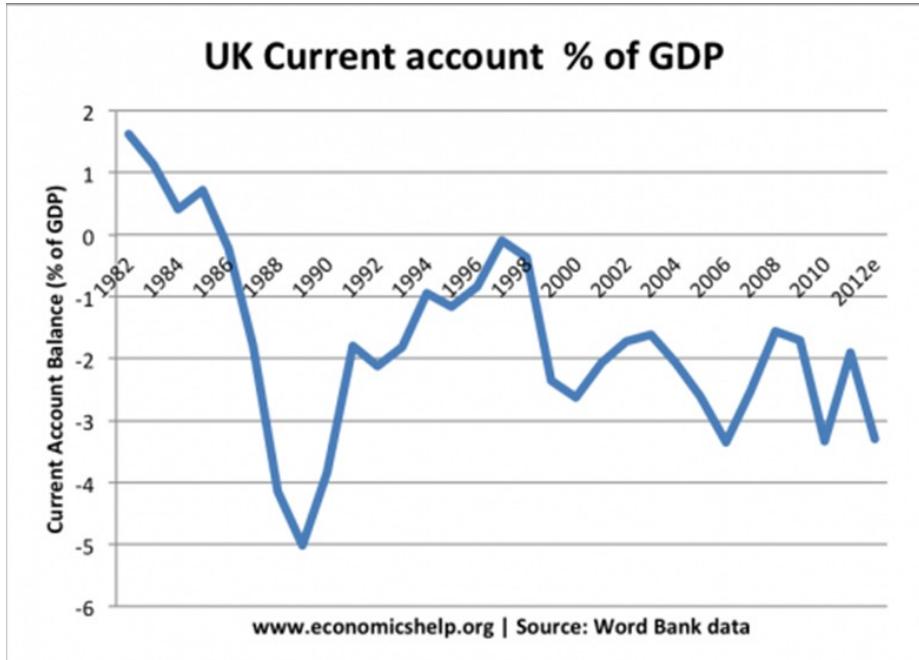
Draw an AD/AS diagram to illustrate this



Will growth always be inflationary?

### 4. Current account deficit

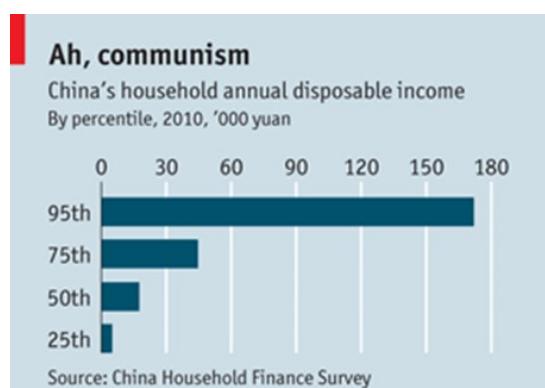
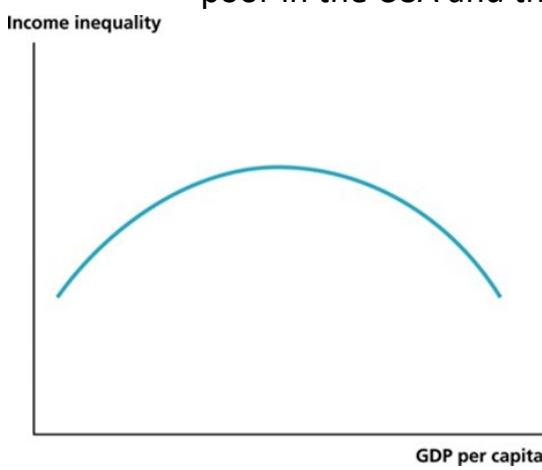
- The UK has a high marginal propensity to import
- Growth of incomes leads to a rise in imports
- Unless exports rise too this causes a rise in the current account deficit as in 1990



Will growth always cause a worsening current account?

## 5. Widening income distribution

- Economic growth tends to lead to a larger rise in the incomes of some workers, especially those with more skill. China has experienced a widening gap in recent years.
- The Kuznets Curve suggests that this gap will narrow as a country becomes more developed
- However, evidence suggests a further widening of the gap between rich and poor in the USA and the UK recently.





## Evaluation

### How inequality affects growth (*The Economist Jun 15th 2015*)

INEQUALITY sits at the top of the political agenda in many countries around the world. Hillary Clinton, the leading Democratic candidate to succeed Barack Obama as president of the United States, made inequality the centrepiece of a major campaign speech on June 14th. On June 18th Pope Francis will deliver an encyclical, a high-level Vatican pronouncement, which is expected to address the problem of global inequality, among other issues. And on June 15th economists at the IMF released a study assessing the causes and consequences of rising inequality. The authors reckon that while inequality could cause all sorts of problems, governments should be especially concerned about its effects on growth. They estimate that a one percentage point increase in the income share of the top 20% will drag down growth by 0.08 percentage points over five years, while a rise in the income share of the bottom 20% actually boosts growth. But how does inequality affect economic growth rates?

Economists say that some inequality is needed to propel growth. Without the carrot of large financial rewards, risky entrepreneurship and innovation would grind to a halt. In 1975 Arthur Okun, an American economist, argued that societies cannot have both perfect equality and perfect efficiency, but must choose how much of one to sacrifice for the other. While most economists continue to hold that view, the recent rise in inequality has prompted a new look at its economic costs. Inequality could impair growth if those with low incomes suffer poor health and low productivity as a result, or if, as evidence suggests, the poor struggle to finance investments in education.

#### Questions:

Why might some inequality be good for growth?

Why might more inequality stifle growth?



Anderton Unit 33; Peter Smith p.179-182; Sloman p.422-423

#### Theme 2 Research task:

Specification:

- g) National happiness:
  - o UK national wellbeing
  - o The relationship between real incomes and subjective happiness

***Read the extracts and articles and complete the last section in the course companion to summarise the key issues.***

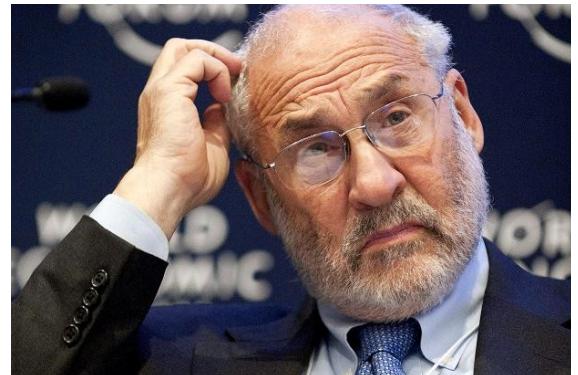
#### National wellbeing and happiness

## Specification 2.1.1

### Introduction on wellbeing

Economic wellbeing is a multi-dimensional concept which aims to provide a more comprehensive measure of living standards and the quality of life than GDP alone. It takes into account:

- Health
- Education
- Personal activities
- Political voice and governance
- Social connections
- Environmental conditions
- Personal security
- Economic security



Much of the work done on this topic comes from the Stiglitz Report which is the outcome of the Commission, set up in 2008 at the request of the French Government. The job of the Commission was to:

*...identify the limits of GDP as an indicator of economic performance and social progress, to consider additional information required for the production of more relevant indicators, to discuss how to present this information in an appropriate way, and to assess the feasibility of alternative measurement tools.*

In 2010 the ONS launched its Measuring National Well-being (MNW) programme. It identified 10 'domains' with 38 associated measures. These include:

The economy, the natural environment, personal finance, education and skills, health, where we live, governance, our relationships, individual well-being

### Extract A: In defence of GDP- why do we use it as a measure of living standards?

One of the reasons why money measures of performance and living standards have come to play such an important role in our societies is that monetary valuation of goods and services makes it easy to add up quantities of a very different nature. When we know the prices of apple juice and of DVD players, we can add up the values of apple juice and DVD players and make statements about production and consumption in a single figure. GDP captures all final goods in the economy, whether they are consumed by households, firms or government. Valuing them with their prices would thus seem to be a good way of capturing, in a single number, how well-off society is at a particular moment. And keeping prices unchanged while observing how quantities of goods and services that enter GDP move over time

would seem like a reasonable way of making a statement about how society's living standards evolve in real terms.

### *Stiglitz Commission 2008*

#### **Extract B: Measuring wellbeing** (*Extract from Report by the Commission on the Measurement of Economic Performance and Social Progress*)

In 2008, French President Nicholas Sarkozy, unsatisfied with the present state of statistical information about the economy and society, asked Joseph Stiglitz to create a Commission on the 'Measurement of Economic Performance and Social Progress' (CMEPSP). The Commission's aim has been to identify the limits of GDP as an indicator of economic performance and social progress, including the problems with its measurement; to consider what additional information might be required for the production of more relevant indicators of social progress; to assess the feasibility of alternative measurement tools, and to discuss how to present the statistical information in an appropriate way.



The growing share of services and the production of increasingly complex products make the measurement of output and economic performance more difficult than in the past. There are now many products whose quality is complex, multi-dimensional and subject to rapid change. This is obvious for goods, like cars, computers, washing machines and the like, but is even truer for services, such as medical services, educational services, information and communication technologies, research activities and financial services. In some countries and some sectors, increasing "output" is more a matter of an increase in the quality of goods produced and consumed than in the quantity. Capturing quality change is a tremendous challenge, yet this is vital to measuring real income and real consumption, some of the key determinants of people's material well-being.

GDP is the most widely-used measure of economic activity. There are international standards for its calculation, and much thought has gone into its statistical and conceptual bases. As statisticians and economists know very well, GDP mainly measures market production – expressed in money units – and as such it is useful. However, it has often been treated as if it were a measure of economic well-being. Conflating the two can lead to misleading indications about how well-off people are and entail the wrong policy decisions.

Average income, consumption and wealth are meaningful statistics, but they do not tell the whole story about living standards. For example, a rise in average income could be unequally shared across groups, leaving some households relatively worse-off than others. Thus, average measures of income, consumption and wealth should be accompanied by indicators that reflect their distribution. Median consumption (income, wealth) provides a better measure of what is happening to the "typical" individual or household than average consumption (income or wealth).

To define what well-being means a multidimensional definition has to be used. Based on academic research the Commission has identified the following key dimensions that should be taken into account:

- i. Material living standards (income, consumption and wealth);
- ii. Health;



- iii. Education;
- iv. Personal activities including work
- v. Political voice and governance;
- vi. Social connections and relationships;
- vii. Environment (present and future conditions);
- viii. Insecurity, of an economic as well as a physical nature.

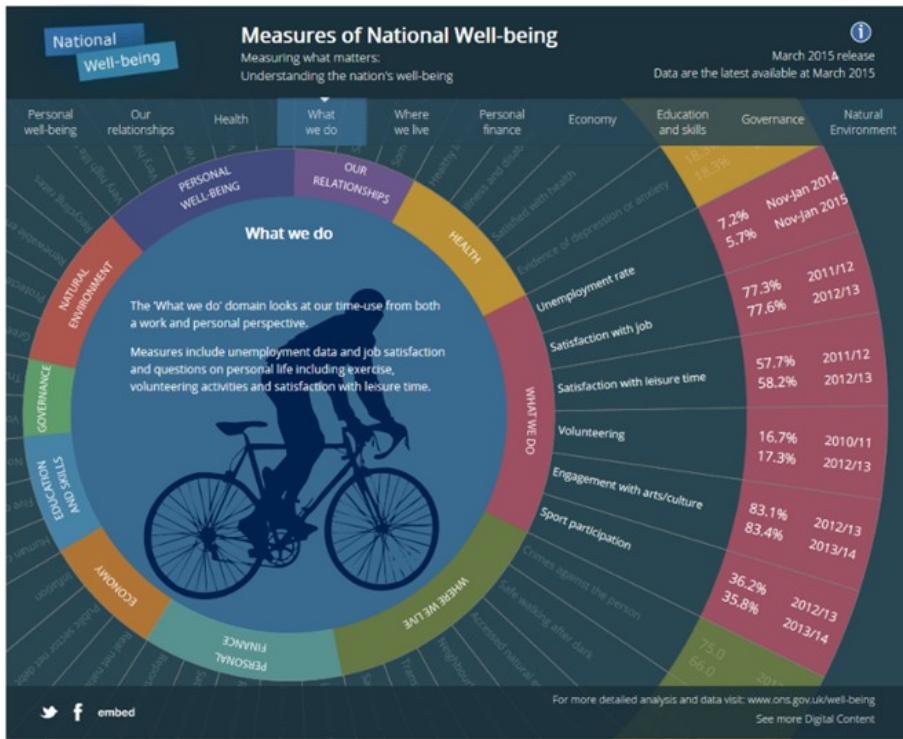
All these dimensions shape people's well-being, and yet many of them are missed by conventional income measures.

### Extract C: Extracts from the UK National Accounts of Wellbeing



The graphic below summarises the measures of **economic well-being** for Q3 2014

**Question:** Which of these would suggest an improvement in well-being, and which a deterioration?



The ONS has also published comparative statistics for the UK and other EU countries on indicators of individual well-being

### Extract C: Article: Above-average happiness: Britain is 11th most content nation in Europe (*The Guardian* 18.6.14)

Break out the bunting: Britain is the 11th happiest country in Europe. People living in the UK are slightly more content with their lives than average when compared with the continent as a whole, according to analysis of European data by the Office for National Statistics (ONS).

Here 71.8% of adults rated their life satisfaction as seven out of 10 or higher in 2011 – compared with an EU-wide average of 69.3%. The score was similar to that of Germany (72.3%) and France (71.6%), but trailed well behind the most content nation,

Denmark (91%). Citizens of Bulgaria were found to be the least satisfied, with just 38.3% giving a rating of seven out of 10 or higher.

The report also suggested Britons have less of a sense of attachment to their local community. While 58.4% of people in the UK reported that they felt close to other people in the area where they live, this compared with an EU-wide average of 66.6% and was the second lowest of all 28 nations.

The UK was close to the bottom for how confident people are that they can get help in the event of a problem. When asked who would give them support if they needed advice about a serious personal or family matter, 88.7% of UK respondents said they could count on help from family, friends, neighbours or someone else – the third lowest of all EU countries.



People in this country appear to be more content in their relationships with relatives than those on the continent, but less happy with their social lives. The average rating of satisfaction with family life by people aged 16 and over in the UK was 8.2 out of 10, compared with the European average of 7.8. By contrast, the average social life satisfaction rating here was 7 out of 10, lower than the 7.3 out of 10 recorded for the whole bloc.

The research also indicated a sizeable number of families across Europe have been hit by money trouble. A fifth (20.2%) of households in the UK in 2012 reported having difficulty in making ends meet, although this was lower than an estimated average of 27.7% for the 28-nation union. The proportion of homes facing financial problems in Britain increased from 13.1% in 2005, while the EU average changed very little over the same period, the ONS report said.

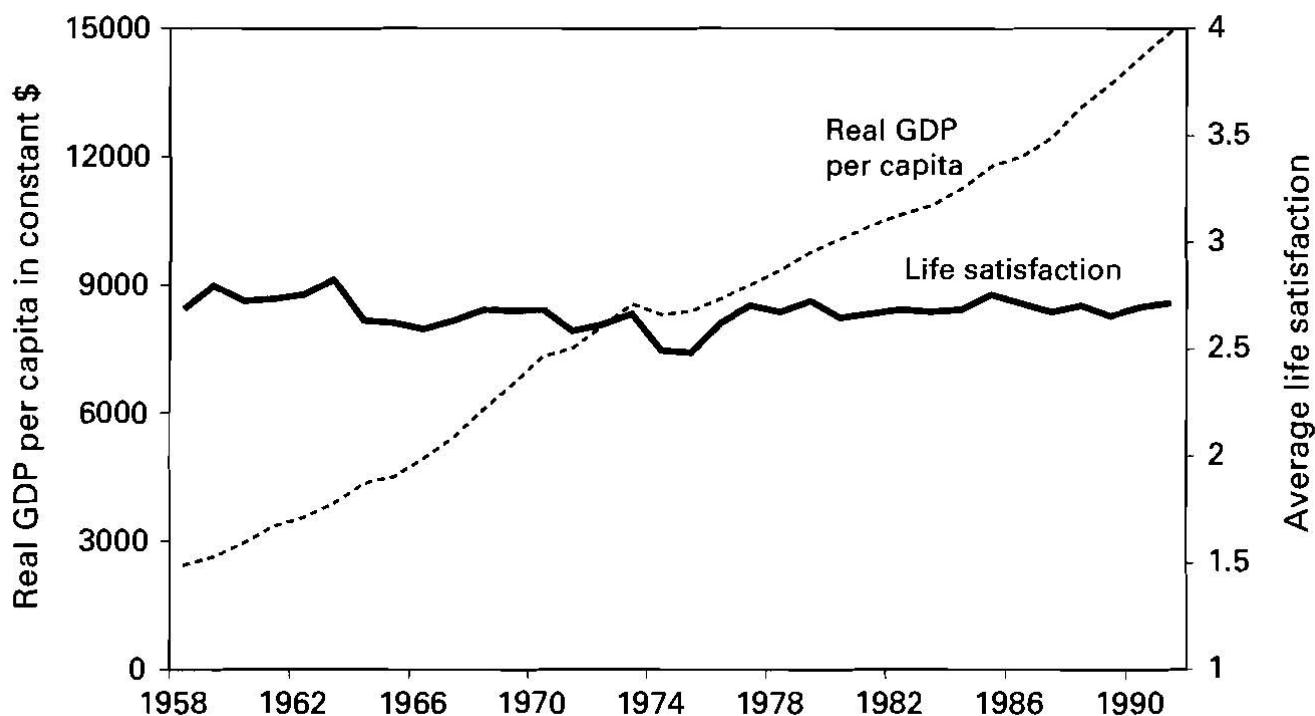
The UK was above the EU average for job satisfaction, the amount of time available to do enjoyable things in daily life and participation in sports and culture. More than six in 10 people (62.7%) in the UK rated their health status as very good or good in 2011 – compared with the EU average of 64%

ONS researcher Ann Corp said: "The overall picture is we are not in the top few for any of [the measures]. We are near the bottom for a few and the rest are tending towards the middle."

**Question:** On what aspects of 'happiness' did the UK do **better** or **worse** than other EU countries?

### Relationship between income and happiness

Research into the relationship between income and happiness has shown that happiness depends on **relative** income and wealth rather than **absolute** income and wealth. This is called the Easterlin Paradox.



## Question:

How much has real GDP per head risen over the period?

How does this compare to life satisfaction?

## The Easterlin Paradox

This concerns whether we are happier and more contented as our living standards improve. In the mid-1970s Richard Easterlin drew attention to studies that showed that, although successive generations are usually more affluent than their parents or grandparents, people seemed to be no happier with their lives.

Findings are that:

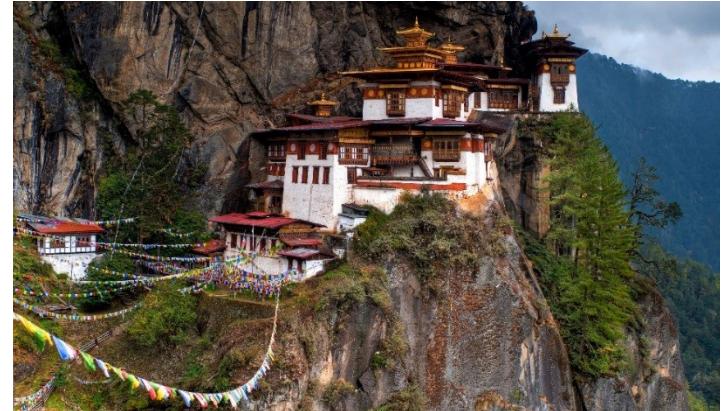
- 1) Within a society, rich people tend to be much happier than poor people.
- 2) **But**, rich societies tend not to be happier than poor societies (or not by much).
- 3) As countries get richer, they do not get happier (*this is illustrated by the chart above*)

Easterlin argued that life satisfaction does rise with average incomes but only up to a point. Beyond that the marginal gain in happiness declines.

## Extract D: Gross National Happiness

The country of Bhutan has devised a measure of happiness of its citizens. It is a multidimensional index taking into account:

- psychological wellbeing,
- time use,
- community vitality,
- cultural diversity,
- ecological resilience,
- living standard,
- health,
- education,
- good governance



Data is collected from surveys and used as a basis of government policies to work on ways of increasing GNH.

'Overall, in 2010, 10.4% of people are "unhappy" according to the GNH index; 47.8% are "narrowly happy"; 32.6% are "extensively happy"; and 8.3% are "deeply happy"...overall, 41% of Bhutanese are identified as happy (meaning they are extensively or deeply happy), and the remaining 59% enjoy sufficiency in 57% of the domains on average.'

'The GNH Index, like the philosophy of GNH which motivates it, is very much a living experiment, seeking to convey more fully the colour and texture of people's lives than does the standard welfare measure of GDP per capita; to enrich the dimensions and the methodology well beyond the HDI Index, and to draw together some innovative work from other initiatives...' Source: Ura, K., Alkire, S., Zangmo, T. and Wangdi, K. (2012) *A Short Guide to Gross National Happiness Index*.

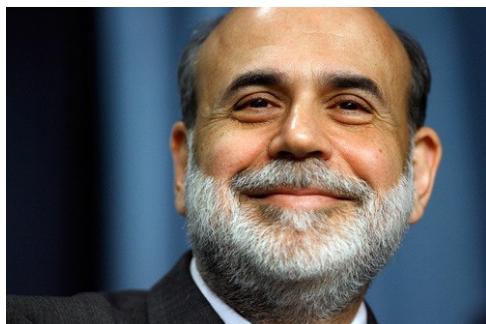
The focus on happiness and the GNH index has attracted a lot of attention recently, and a high-level conference was held under the auspices of the United Nations (UN) in April 2012 bringing together hundreds of representatives of government, academics and other civic leaders to discuss the issue.

Since 1971, the country has rejected GDP as the only way to measure progress. In its place, it has championed a new approach to development, which measures prosperity through formal principles of gross national happiness (GNH) and the spiritual, physical, social and environmental health of its citizens and natural environment.

For the past three decades, this belief that wellbeing should take preference over material growth has remained a global oddity. Now, in a world beset by collapsing financial systems, gross inequity and wide-scale environmental destruction, this tiny Buddhist state's approach is attracting a lot of interest.

Source: Guardian 1.12.12

#### **Extract E    The Economics of Happiness (Extracts from a speech by Ben Bernanke (Chairman of US Federal Reserve) 2010)**



As you might guess, when thinking about the sources of psychological well-being, economists have tended to focus on the material things of life. This is why economic policymakers often emphasize the promotion of economic growth. The richer a country is, the higher the material standard of living of its average person. What applies to a country applies to individuals: Higher income equals a higher standard of living, which most people desire.

This traditional economist's perspective on happiness is not as narrow and Scrooge-y as you might think at first. If I were to ask you what you value in life besides goods and services--a nice car or house, for example--you might begin with, say, your health. Well, richer countries have more resources to devote to medical care, to good nutrition and sanitation, and to workplace safety, and for these and other reasons rich countries have higher life expectancies, lower infant mortality rates, and generally better health indicators than poor countries. Likewise, as the United States has grown richer over time, longevity and other measures of health have improved.

Another thing that most people value is a clean environment. But again, rich countries have more resources to devote to maintaining a clean environment and do tend to have better air and water quality than poor and middle-income countries, notwithstanding the fact that rich countries by definition produce more goods and services. Rich countries also generally provide people more leisure time, less physically exhausting and more interesting work, higher education levels, greater ability to travel, and more funding for arts and culture. Again, these linkages, together with the benefits of enjoying a wide variety of goods and services, are the reason that economic policymakers usually put heavy emphasis on job creation and growth. And, indeed, economists researching happiness and life satisfaction have found that both inflation and unemployment detract from happiness.

Some years ago the economist Richard Easterlin showed that, just as would be expected, wealthier people in any given country are more likely to tell a survey-taker that they are happy with their lives than are poorer people in the same country. However, Easterlin also found that as countries get richer, beyond the level where basic needs such as food and shelter are met, people don't report being any happier. Second, he found that on average, people in rich countries don't report being all that much happier than people in lower-income countries. The finding that people in rich countries don't report much greater happiness

than those in lower-income countries--even though, in any given country, the rich say they are happier than the poor do--is called the Easterlin paradox, after its discoverer.

If I live in a country in which most people have only one cow, and I have three cows, then I will have lots of social status and self-esteem and will thus feel happy. But if everyone around me has a luxury car, and I am hung up on status, I won't feel very special unless I have both a luxury car and an SUV. This relative-wealth hypothesis can explain why rich people are happier than poor people in the same country, but also why people in richer countries are not on average much happier than people in poorer countries. It's the big fish in a little pond phenomenon. There is certainly something to this explanation. "Rich" is a relative term.

Happiness research can be useful for individuals, but it also has implications for policymakers. For one, the policy goals of promoting economic growth and employment, though not--as we have seen--the only appropriate goals, are worthwhile nonetheless. Generally, richer countries also have fewer citizens in severe poverty.

But, again, many things beside income contribute to feelings of well-being. For example, as I mentioned, social interactions appear very important for individual happiness. More generally, economic policymakers should pay attention to family and community cohesion. All else equal, good economic policies should encourage and support stable families and promote civic engagement. Individual freedoms contribute to life satisfaction.

Notwithstanding that income contributes to well-being, the economics of happiness is also a useful antidote to the tendency of economists to focus exclusively on material determinants of social welfare, such as the GDP. GDP is not itself the final objective of policy. Obtaining broader measures of human welfare is challenging, but not impossible.

Note the following from this article:

1. What defence is given for using GDP in the extracts?
2. Why does GDP provide an incomplete picture of wellbeing?
3. Why does a change in the quality of goods and services provide a problem for calculating changes in GDP?
4. How can the Easterlin paradox be explained?

### **Additional sources:**

New Economics Foundation at

<http://www.neweconomics.org/publications/entry/national-accounts-of-well-being>

<http://www.nationalaccountsofwellbeing.org/>

ONS at

<https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/bulletins/economicwellbeing/quarter1jantomar2016>

Textbook references: Anderton Unit 31 ;Peter Smith p.124-125 ; Sloman p.413



## **Research task summary on wellbeing and happiness**

**What is meant by wellbeing and how does it differ from GDP?**

## **Arguments in favour of GDP**

## **What is the Easterlin paradox and how can it be explained?**

### **Arguments for and evaluation of using alternative measures of wellbeing to GDP**

<b>Arguments for using alternative measures of wellbeing or happiness</b>	<b>Evaluation of alternative measures</b>

