2.1.1 Economic growth

Notes for Edexcel Economics A, unit 2.1.1 on economic growth
Written by Tom Furber, tfurber.com/edexcel-economics

Contents

Definitions and measures of national income

Gross Domestic Product (GDP) measures the total market value of all goods and services produced within an economy in a given time period.

It is a way of measuring the level of economic activity in a country. GDP is often used as a measure of living standards.

However there are aspects of living standards that GDP does not capture, such as the state of the environment.

GDP can be calculated in multiple ways:
1. **The expenditure method**: adding up all spending (consumption, investment, government spending and net exports) in the economy.
2. **The income method**: adding up all incomes in the economy, such as wages, interest and profits.
3. **The output method**: measuring the total value of all goods and services produced.

All three methods should give the same result. For instance, one person's spending is another person's income, so the expenditure and income methods should be equivalent.

GDP is a value measure. It involves using market prices to convert the volume (the quantity of units produced) of goods and services into a market value.

There are different ways of reporting GDP figures:
- Real versus nominal
  - Real = accounting for inflation.
  - Nominal = does not take into account inflation.
  - Example: suppose an economy's nominal GDP has increased by 4% in a year. In the same year, there has been an inflation rate of 3%. Then we can say that real GDP has increased.
- Total versus per capita
  - "GDP" is usually a total value.
  - To account for the number of people in a country, we can divide GDP by the number of people in the population. This gives us GDP per capita (i.e. "per head").

Economic growth is when the real GDP of a country increases.

The economic growth rate is the percentage change in real GDP over time. For example, a 2% annual economic growth rate means real GDP increases 2% per year.

An alternative way to measure national income is Gross National Income (GNI). GNI measures the total income earnt by a country's residents within a given time period.

What are the differences between GDP and GNI?
- GNI = GDP + net income from overseas.
- So GNI includes income earnt by a country's residents from abroad, such as the incomes from overseas investments.
- But GNI does not include income earnt from domestic production by a resident of a foreign country. GDP would include this. For example, someone living outside the UK who owns a factory in the UK producing cars and who earns an income from that factory.

Comparing rates of growth, including the use of PPP

An advantage of GDP figures is they can be used to measure living standards over time and compare living standards between different countries.

For example, consider the graph below:

This shows GDP per capita over time in US dollars for four countries: Argentina, Spain, the UK and Malaysia.

The prices have been fixed at 2011 levels for all years, which is one way of making GDP figures real. Any fluctuations in the diagram will reflect changes in amounts of goods and services being produced, rather than simply changes in the prices of goods (i.e. inflation).
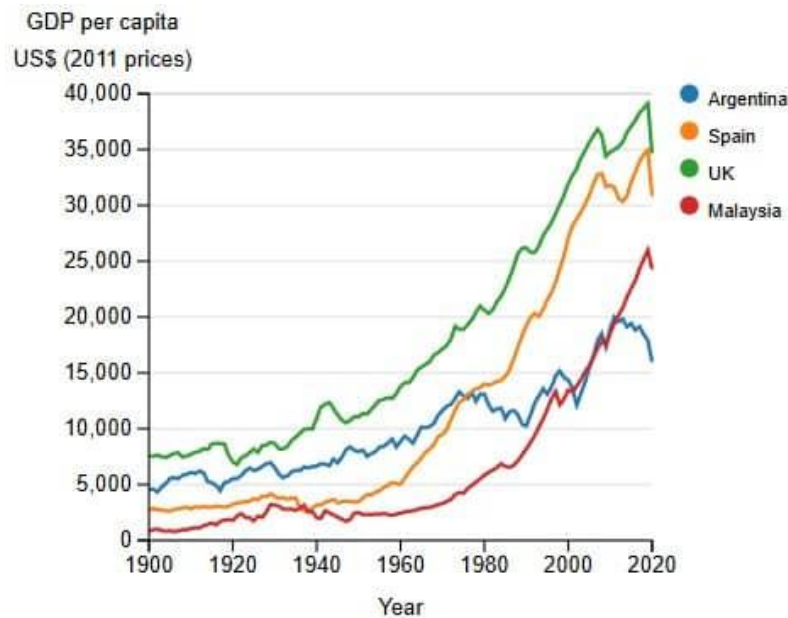
Source for data: Maddison Project.

What can we tell from this graph?
- Over time, the countries in the diagram have seen an increase in real GDP per capita.
- The UK has a higher real GDP per capita than Spain, Argentina and Malaysia.
- While Argentina has seen an increase in real GDP per capita too, it has grown at much slower rates compared to the other countries over the time period shown.
- Over time, Spain and then Argentina have overtaken Argentina in terms of real GDP per capita.

Question for students: Can you support the claims above with reference to specific data points?

To the extent that GDP figures can capture living standards, we could use a chart like the one above to compare living standards between countries and over time. See the section on the limitations of using GDP for why GDP may not capture living standards.

Purchasing power parity

Purchasing power parity (PPP) is another way to adjust GDP measures. PPP is an adjustment to account for cost of living differences between countries.

Consider a fictional example where two countries A and B have a GDP per capita of $10,000.

However, in country B, the price level is lower than in country A. In other words, those in country A can afford to buy more goods and services than country B, even with the same GDP per capita.

GDP per capita PPP would therefore give a higher figure for country B than for country A.

So, if we want to use GDP per capita as a proxy for living standards, we can use PPP to take differences in living costs into account.

What are the limitations of using GDP to measure living standards?

The limitations of using GDP to measure living standards include:

- **Not taking into account quality of healthcare and education:**
    - Higher GDP does not necessarily mean higher quality public services like education or healthcare.
    - Good healthcare, for example, reduces illness by giving access to good treatment. This allows people to live longer, healthier lives and increase life expectancy.
    - Education gives participants more choice over what to work on in their career and contributes to an informed population.
    - GDP does not take other factors like healthcare and education into account, which may be just as important or more important than GDP.
- **GDP does not reflect the distribution of income:**
    - GDP measures are totals or averages - they do not tell us how the GDP is distributed between different people.

- - Even if a country's GDP is high, if almost all the incomes are concentrated among a small group of people, most of the population could still have low living standards.
- GDP only considers goods and services that are traded on markets and hence have a market price. W**hat about goods that aren't bought and sold on markets?**
  - For example, some economies have large informal sectors. These are parts of the economy that are not taxed and monitored by the government. There may not be data available on the price and volume of transactions in the informal sector, making it difficult to count in GDP.
  - Other non-monetised activities include DIY and stay-at-home carers taking care of relatives. DIY and caring are valuable activities but are not bought and sold on the market. So GDP does not account for these.
  - GDP also does not consider the environment. Suppose there is an increase in both air and water pollution. This could cause breathing problems and lower living standards, but GDP would not directly take this harm into account.
- GDP does not consider how the **quality of technological goods may improve over time**.
  - For example, computers have become more productive over time. Tasks on the computer can be undertaken more quickly and there are more features available on computers, as time progresses.
  - However, for GDP figures, a computer in 2000, provided it has the same market price, contributes the same to GDP as a computer in 2020.
  - In other words, GDP does not reflect the improvement in the productivity of computers.

What is national happiness?

National happiness is a broad measure of wellbeing. It looks beyond GDP at various determinants of happiness, such as relationships, health and the environment.

For example, the government of Bhutan aims to maximise its Gross National Happiness (GNH) instead of its GDP.

What is the link between subjective happiness and real incomes?

- **Higher real incomes can lead to higher subjective happiness.**
  - Higher real incomes mean consumers have more money to spend.

- ○ So consumers may spend more on necessities and luxuries, increasing subjective wellbeing.
- ○ Higher real incomes also allow households to save more. This increases households' financial resilience to economic shocks, such as a downturn or loss of job. This increased certainty could also contribute to higher wellbeing.
- ○ **However higher real incomes may only boost subjective happiness to a point**
  - ■ An economic justification for this claim is the idea of "diminishing marginal utility". The satisfaction from consuming one more unit of a good decreases, as we consume more of it. So initially, more money may make people happier.
  - ■ Another way to see this is with low incomes, any extra income must go towards covering necessities such as food and shelter.
  - ■ Yet at some level of income, higher income only buys more luxuries or goes towards savings, which may not generate as much additional happiness.
  - ■ An often cited threshold is $75,000 of annual income, beyond which extra income does not increase happiness. (Kahneman and Deaton 2010).
  - ■ This claim that higher real incomes may only boost happiness to an extent is controversial. There are studies claiming the threshold is a different number Other studies claim higher real incomes always increase wellbeing, no matter the level of income. (For more on this, see the external links here and here).

Bonus points for economic growth

Easterlin paradox and the importance of relative incomes
- ● The Easterlin paradox comes from economist Easterlin's two observations:
  - ○ At a given time period, countries with higher average incomes are on average happier than those with lower incomes.
  - ○ However, as a particular country's income increases over time, happiness does not seem to increase as strongly.
- ● Easterlin uses this to argue for the importance of relative incomes for influencing happiness. People may compare their incomes to an average or norm.
- ● Relative income is a significant determinant of people's happiness. In other words, how high someone earns relative to their peers may be more important than their absolute income level.
- ● Easterlin's claim was based on analysis of happiness and income data over time, but it has been contested. Some researchers have not found evidence for the Easterlin paradox and suggest issues with data and measurement. Easterlin contends that there

may be a short-run relationship between changes in income and happiness but not a long-run relationship.

**The correlation between GDP and other measures of living standards:**
- GDP could be an effective way of measuring living standards, as GDP is correlated with other measures of living standards such as the quality of healthcare and education.
- For instance, a higher GDP means more tax revenue for the government to fund state education and healthcare. It also means households may have more disposable income to spend on private education and healthcare. More funding for education and healthcare could boost the quality of education and healthcare institutions.

Practice question

Below is a practice question written in the style of Edexcel Economics A.

Consider again the graph showing GDP per capita in US dollars at 2011 prices.

Figure 1 - real GDP per capita US$ over time for four different countries. Data sourced from the Maddison Project.
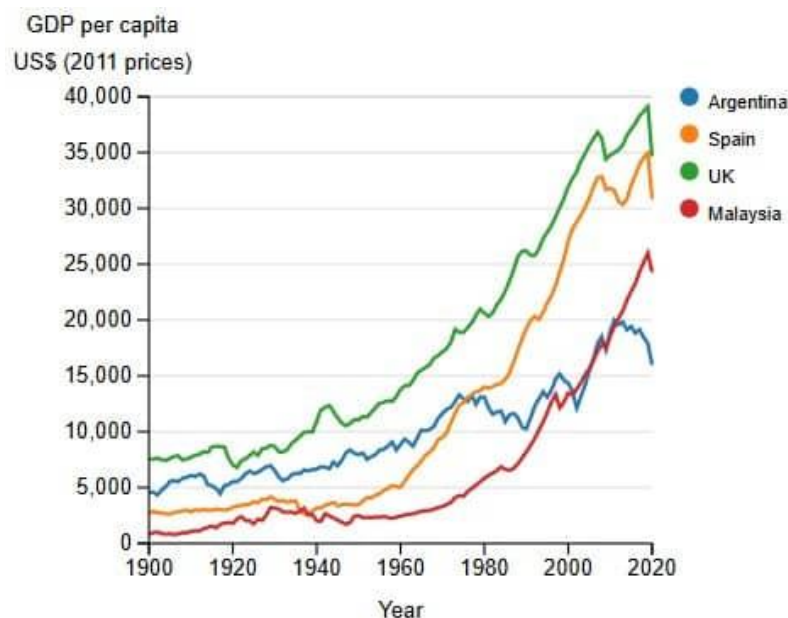
Question: Assess the view that the data in Figure 1 can be used to compare living standards between countries **and** to measure changes in living standards over time. (12 marks)

Related resources for Edexcel Economics A

Edexcel Economics A notes, model answers and practice questions:
https://tfurber.com/edexcel-economics

Edexcel Economics A Theme 2 notes, model answers and practice questions:
https://tfurber.com/theme-2-edexcel-economics/

Related topics:
- Inflation.
- Aggregate demand.
- Aggregate supply.