37 The impact of economic growth

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Key points

1. Economic growth gives rise to significant increases in GDP over time.
2. Economic growth is associated not just with increasing material prosperity but also increases in longevity, quality of housing, educational attainment and other socioeconomic variables.
3. There are concerns about economic growth including whether it is sustainable, whether it leads to widening inequalities and whether it increases living standards or happiness.
4. Economic growth has different impacts on consumers, firms, the government and living standards.

Starter activity

What was life like 100 years ago in the UK? Find 10 facts that relate to people's standard of living 100 years ago. Were people better off then than now?

Economic growth

The rate of economic growth of the world economy has accelerated, historically, in recent decades. Even 500 years ago, most people would have seen little change in incomes over their lifetimes. In Victorian England, the economy grew at about one per cent per annum. Between 1948 and 2014, UK real GDP grew at an average of 2.7 per cent per annum. Between 1979 and 2014, China's economy grew at nearly 10 per cent per annum on average. Growth in the developed world, in Western Europe, the USA, Japan and other countries, has led to enormous affluence. In China, whilst hundreds of millions of its 1.3 billion inhabitants are still very poor, many are now leading 'western' life styles.

To see the importance of economic growth, consider Table 1. It shows by how much £100 will grow over time at different rates. At one per cent growth per annum, income will roughly double over the lifetime of an individual. At two per cent, it will quadruple over a lifetime. At three per cent, it is doubling every 25 years. At five per cent, it only takes about 14 years to double income. At 10 per cent, it only takes about seven years to double income.

If the UK could grow at its long run rate of post-war growth of around 2.7 per cent, average British workers in 30 years' time will earn, in real terms, twice what they are earning today. When they are in their 70s, they can expect workers to earn four times as much as workers in the year that they were born.

Table 1 Compound growth rate of £100 over time

Year	Annual growth rates				
	1%	2%	3%	5%	10%
0	100	100	100	100	100
5	105	110	116	128	161
10	110	122	134	163	259
25	128	164	209	339	1 084
50	164	269	438	1 147	11 739
75	211	442	918	3 883	127 189
100	271	724	1 922	13 150	1 378 061

Question 1

The photographs show a modern kitchen and a kitchen at the start of the 20th century. To what extent do they show that economic growth has been desirable?

The benefits of economic growth

For individuals as consumers, economic growth in the short term is likely to bring benefits. If nothing else, consumers can buy more goods and services. Between 1955 and 2013, for example, UK consumption per person per year in real terms increased from £6 224 in 1955 to £20 090 in 2013, a more than three-fold increase. However, economic growth can bring more fundamental changes.

- Life expectancy tends to be associated with income. So life expectancy in the UK in 1900 was approximately 49 years. Today it is 82 years.
- People have enough to eat and drink, which was not true in the UK in 1900. What we eat and drink is nearly always fit for human consumption. In fact, UK consumers are now so rich that overeating is a major problem.
- Housing standards today in the UK are very high. There is some inadequate housing but this is only a very small percentage of the housing stock. Relatively few houses that people lived in, in 1900, would be considered adequate today.
- Nearly everyone can read and write in the UK. Standards of education are much higher on average than 100 years ago when most children left school at 12.
- Health tends to be better. Not only are people living longer on average, but the quality of their life in old age has increased because of better health.

Despite the apparent benefits, the goal of economic growth is questioned by some economists and environmentalists.

Growth is unsustainable

Perhaps the most serious anti-growth argument is that growth is unsustainable. Sustainable growth can be defined as growth in the productive potential of the economy today which does not lead to a fall in the productive potential of the economy for future generations. Consider again Table 1. If a country like the UK grows at an average three per cent per annum, then in 25 years' time national income will be twice as large as it is today; in 50 years' time, it will be over four times as large; in 75 years' time, it will be nine times as large; and in 100 years' time it will be 19 times as large. If the average wage in the UK today of a full-time employee is £27 000 per annum, then in 100 years' time it will have risen to £518 940 per annum in real terms at an annual growth rate of three per cent.

Each extra percentage increase in national income is likely to use up **non-renewable resources** such as oil, coal and copper. It is argued that the world will soon run out of these resources and there will then be economic collapse. Increases in national income are also argued to be associated with greater pollution. The greatest threat we currently face is from global warming. The worst case scenario is that within 100 years, the earth will be so warm and sea levels will have risen to such an extent that much of the world will be uninhabitable. Again, a collapse in the world economy is forecast.

Economic theory suggests that the future may not be as bleak as this picture makes out. In a market economy, growing scarcity of resources, such as oil, results in a rise in price. Three things then happen. First, demand and therefore consumption falls - the price mechanism results in conservation. Second, it becomes profitable to explore for new supplies of the resource. Third, producers and consumers switch to substitute products. For example, it is likely that within the next 50 years, electric or hydrogen-powered cars will have replaced vehicles powered by scarce and more polluting oil.

Governments too respond to pressures from scientists and the public. The activities of industry are far more regulated today in the western world than they were 30 years ago. Individual governments, for example, have introduced strict controls on pollution emissions and regulated disposal of waste. Western European governments have also introduced strict greenhouse gas emission limits.

What is worrying, however, is that the market mechanism and governments are frequently slow to act. Governments and markets are not good at responding to pressures which might take decades to build up but only manifest themselves suddenly at the end of that time period. Some scientists have predicted that global warming is now already irreversible. If this is true, the problem that we now face is how to change society to cope with this. There is no clear consensus as to how we could reverse economic growth, consume less, and cope with the coming catastrophe, without creating an economic nightmare with mass starvation.

Increasing inequalities

Some economists have argued that economic growth is increasing inequalities in income and wealth. Karl Marx, the founder of communism in the 19th century, argued that workers would live on subsistence wages whilst all the benefits of economic growth would go to the owners of capital. The history of the 20th century in rich countries like the UK and the USA seemed to disprove this Marxist view. Inequalities broadly narrowed and both manual workers and the rich enjoyed rising incomes. Equally, since the 1990s, there has been a narrowing of income differentials between developing countries and rich western countries. For example, with China growing at up to 10 per cent per year and western economies at 2.5 per cent, the narrowing has been quite dramatic. Today, many developing countries are targeting growth rates of five or six per cent, whilst the developed world considers itself lucky if it can achieve 2.5 per cent.

However, certainly in the UK and the USA, inequalities have been growing in recent decades. In the case of the USA, the average (median) worker has seen almost no growth in income over the past 25 years at a time when the US economy has been growing on average by 2.5 per cent per year. One explanation is that the average worker today is competing for jobs not within an economy, but globally. A worker in UK manufacturing is competing for a job with a worker in China or Bangladesh. Technology gives the UK worker some competitive advantage. But often using state of the art technology is not enough to make the UK competitive. In the non-traded sector, workers, such as healthcare assistants or hotel staff, are competing with a steady supply of new immigrant labour. In the UK, this might mean other European workers. In the USA, it might be migrants from Central America. At the top of the pay scale, demand is pushing up wages for what are seen as the best workers. In the middle and the bottom, increases in the supply of workers are leading to stagnating wages. The benefits of economic growth are therefore being appropriated by the highest earners, particularly the top one per cent. None of the benefits is being seen by middle and lower income households. Whether this continues into the future remains to be seen.

Growth and happiness

Some economists argue that higher average incomes do not necessarily make individuals happier. Using psychological surveys from across the world (cross-sectional surveys), they have found that happiness and income are positively related at low levels of income but higher levels of income are not associated with increases in happiness. The idea that increases in GDP do not lead to increases in happiness is called the **Easterlin Paradox**, after Richard Easterlin, an economist who identified the problem in a 1974 research paper. The argument is that an increase in consumption of material goods will improve well-being when basic needs are not met, such as adequate food and shelter. But once these needs are being met, then increasing the quantity of goods consumed makes no difference to well-being. Having a new high-definition television, or a new car when you already have a reasonable, functioning TV or car doesn't increase your well-being in the long term.

Rather than concentrate on increasing GDP, governments of high-income countries such as the UK should concentrate on factors which contribute to happiness. These include improving the quality of human relationships, working fewer hours, ensuring adequate health care for all and giving all citizens a minimum income.

The anti-growth lobby

One point to note is that supporters of the anti-growth lobby tend to be people who are relatively well off. Cutting their consumption by 25 per cent, or producing environmentally friendly alternative technologies, might not create too much hardship for them. However, leaving the mass of people in the developing world today at their present living standards would lead to great inequality. A small minority would continue to live below the absolute poverty line, facing the continual threat of malnutrition. A majority would not have access to services such as education and health care which people in the West take for granted. Not surprisingly, the anti-growth lobby is stronger in the West than in the developing world.

The impact of economic growth

The impact of economic growth is felt by a number of different groups and on different issues.

Consumers Economic growth should allow households to see rising incomes over time. They can then afford to buy more goods and services. However, if the economic benefits of economic growth are appropriated by only the most well off in society, then average households will see no gain. This has been the experience of US households for the past 30 years. Also, there is debate about whether buying more goods and services leads to rising living standards and rising levels of happiness. If the Easterlin Paradox is correct, economic growth will bring no benefits to consumers in terms of happiness in rich industrialised countries.

Firms Economic growth may provide opportunities for existing firms to increase sales as buyers have rising incomes. However, economic growth is accompanied by changes in the structure of the economy. Changing technologies mean that some firms will find their markets disappearing. Economic growth also provides opportunities for new firms to establish themselves.

The government Rising incomes means that government tax revenues should rise. Rising private sector spending also tends to lead to demands for similar rises in public sector spending. After all, if consumers are going on more holidays, buying more computer equipment or going out to restaurants more often, they also want to see better education for their children, better roads on which to drive their cars or better health care for themselves. However, the response to rising tax revenues depends upon parties in power. Right-wing governments are more likely to reduce rates of tax and reduce government services than left-wing governments.

The environment In rich developed countries, economic growth is likely to lead to less pollution and a cleaner environment. Economic actors are likely to spend on technologies and projects to improve the environment.
In developing countries, growth in primary and secondary industries is likely to increase pollution and degrade the environment. China, for example, has a serious pollution problem because of the growth of its heavy industries in recent decades. However, further growth should lead to a cleaning up of the environment in these countries.

The economy Growth in GDP results in a larger economy. The possible impact on consumers, firms and government has already been described. In terms of jobs, growth may result in more jobs being created or there may be fewer if existing workers become more productive.

Current and future living standards The impact of economic growth on current living standards depends on who receives the benefit of that economic growth. If it is only the richest in society, then it will have no impact on the majority of households. However, in developing countries, everyone in society is more likely to benefit from economic growth. The debate about the link between rising GDP and living standards must also be taken into account. The weaker the link, the less economic growth will benefit households and individuals.

Key Term

Sustainable growth - growth in the productive potential of the economy today which does not lead to a fall in the productive potential of the economy for future generations.

Thinking like an economist

The standard of living in the UK since 1900

GDP is often used as the major economic indicator of welfare. Table 2 shows that, on this basis, living standards in the UK rose considerably last century. Between 1901 and 1931 GDP rose 26 per cent and between 1901 and 2013 it rose 727 per cent. Population has increased too, but even when this has been taken into account, the rise in income per person is impressive.

It is possible to chart a multitude of other ways in which it can be shown that the standard of living of the British family has improved. For instance, 14.2 per cent of children in 1901 died before the age of one. In 2013, the comparable figure was 0.4 per cent. In 1901, the vast majority of children left school at 12. From 2015, all children will stay on in school or full-time education to the age of 18. In 1901, few people were able to afford proper medical treatment when they fell ill. Today, everyone in the UK has access to the National Health Service.

Table 3 illustrates another way in which we are far better off today than a family at the turn of the century. It shows the weekly budget of a manual worker's family in a North Yorkshire iron town, estimated by Lady Bell in her book *At The Works*. The family lived off 7½ home-made loaves of 4lb (1.8kg) each thinly scraped with butter, 4lb (1.8kg) of meat and bacon, weak tea, a quart of milk and no vegetables worth mentioning. In 2013, whilst average consumption for five people of bread was 3.0kg a week, and sugar and jam 0.62kg, on the other hand meat consumption was 4.7kg, fresh and processed potato consumption was 3.4kg, and butter, margarine, and low fat spreads consumption was 0.86kg. Moreover, today's diet is far more varied and ample, with fruit and vegetables apart from potatoes playing a major part. Malnutrition, not uncommon in 1900, is virtually unknown in the UK today.

The budget also says a great deal about the very restricted lifestyle of the average family in 1908. Then, a family would consider itself lucky if it could take a day trip to the seaside. In comparison, individuals took an estimated 37.6 million holidays abroad in 2013.

Table 2 GDP, GDP per head and population, 1901-2013

	GDP (£bn at 2013 prices)	Population (millions)	GDP per head (£ at 2013 prices)
1901	176.9	38.2	4 631
1911	203.0	42.1	4 822
1921	182.8	44.0	4 155
1931	222.9	46.1	4 835
1951	360.2	50.2	7 175
1961	465.9	52.7	8 841
1971	597.0	55.5	10 757
1981	698.6	55.1	12 679
1991	913.1	57.4	15 908
2001	1 212.5	59.1	20 516
2011	1 430.4	63.2	22 633
2013	1463.8	64.1	22 836

Note: GDP is at market prices.
Source: adapted from www.ons.gov.uk; www.bankofengland.co.uk.

Table 3 Family budget in 1908

Source: adapted from *At the Works: A Study of a Manufacturing Town*, Lady Bell, Edward Arnold, 1907.

Family budget in 1908
Income 18s 6d, family of five

	s.	d.
Rent	5	6
Coals	2	4
Insurance	0	7
Clothing	1	0
Meat	1	6
14lb of flour	1	5
3½ lb of bread meal	0	4½
1lb butter	1	1
Half lb lard	0	2½
1lb bacon	0	9
4 lb sugar	0	8
Half lb tea	0	9
Yeast	0	1
Milk	0	3
1 box Globe polish	0	1
1lb soap	0	3
1 packet Gold Dust	0	1
3 oz tobacco	0	9
7lb potatoes	0	3
Onions	0	1
Matches	0	1
Lamp oil	0	2
Debt	0	3
Total	18	6

In 1908, houses were sparsely furnished. The main form of heating was open coal fires; central heating was virtually unknown. Very few houses were wired for electricity. Table 3 shows that the typical house was lighted by oil. All the electrical household gadgets we take for granted, from washing machines to vacuum cleaners to televisions, had not been invented. The 1lb of soap in the 1908 budget would have been used to clean clothes, sinks and floors. Soap powders, liquid detergents and floor cleaners were not available. 'Gold Dust' was the popular name for an exceptionally caustic form of shredded yellow soap notorious for its ability to flay the user's hands. Compare that with the numerous brands of mild soaps available today.

Workers worked long hours, six days a week with few holidays, whilst at home household chores were a drudgery, with few labour-saving devices. Accidents were frequent and old age, unemployment and sickness were dreaded and, even more so, the workhouse, the final destination for those with no means to support themselves.

Ecologically, the smokestack industries of industrial areas such as London, the Black Country and Manchester created large-scale pollution. The smogs which are found in many cities such as Mexico City and Los Angeles today were common occurrences in turn-of-the-20th century Britain. The urban environment was certainly not clean 100 years ago.

Socially and politically, women, who formed over half the population, were not emancipated. In 1900, they did not have the vote, their place was considered to be in the home, they were often regarded as biologically inferior to men, and they were debarred from almost all public positions of influence and authority. In many ways, the standard of living of women improved more than that of men during the 20th century because of the repressive attitude held towards women over 100 years ago.

Overall, it would be very difficult to look back on 1900 and see it as some golden age. The vast majority of those in Britain today have much higher living standards than their counterparts in 1900. However, whilst there might be little absolute poverty today, it could be argued that there is considerable relative poverty. It could also be argued that the poorest today are probably still worse off than the top five per cent of income earners in 1900.

Source: with information from www.gov.uk; www.ons.gov.uk.

Data Response Question

Comparative living standards in the UK

Table 4 UK, selected indicators

	1971	2013
GDP, £bn at current prices, UK	60.9	1 713.3
Price Index, GDP deflator (1971=100), UK	100	113.6
Population, millions, UK	55.5	64.2
Percentage of households, UK, owning		
Central heating	30	96
Dishwasher	0	42
Telephone	35	89
DVD player	0	85
Home computer	0	83
Number of workers, millions, UK		
Men in work	15.5	16
Women in work	9.0	14
Unemployed (LFS)	1.1	2.5
Motorway motor vehicle traffic, yearly vehicle kilometres, bn, GB	9.7	101.9
Percentage of males born 80 years previously and still alive, UK	24.9	57
Percentage of dwellings owner occupied, UK	50	63

Source: adapted from www.ons.gov.uk; www.gov.uk.

Table 5 UK, selected indicators

Percentage of adults smoking, GB	**1974**	**2013**
	46	19
Percentage of adults obese, England	**1978**	**2012**
	6	25
Number of marriages, England and Wales	**1971**	**2012**
	404 737	262 240
Number of students obtaining (first) university degrees, UK	**1970**	**2012-13**
	51 189	303 510
Mortgage payments as % of average (mean) take home pay, first time buyers, UK	**1983Q1**	**2014Q3**
	28.5	34.3

Source: adapted from www.ons.gov.uk; www.nationwide.co.uk; www.hesa.ac.uk.

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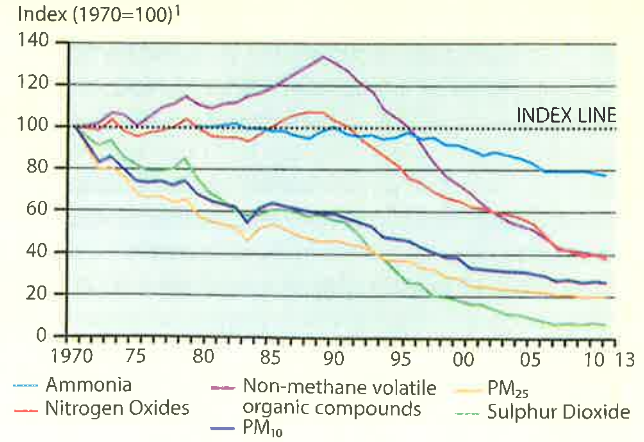
1. Compare real GDP per capita in 1971 with 2013.
2. Using the data, explain (a) three ways in which the average person was better off in 2013 than in previous decades and (b) one way in which the average person was worse off.
3. Discuss whether rising real GDP per person was sufficient to ensure that every citizen of the UK was better off in 2013 than in 1971.

Evaluation

The simple answer to this question is no. Look at the data and draw out examples where standards of living have fallen. You could also use your own examples. However, most of the data does suggest that people are better off. Give some examples when you write about this. Then weigh up the two sides to come to a conclusion. In your conclusion, you could also query whether higher consumption of goods and services leads to any greater happiness. Were people less happy in 1971 because no one had online streaming of films or music, for example?

Figure 1

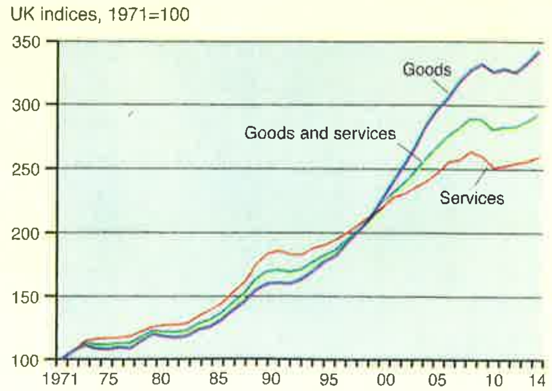
Emissions of selected air pollutants, UK (1970=100)



1. Ammonia (1980 = 100)
Source: adapted from www.defra.gov.uk.

Figure 2

Index of volume of domestic household expenditure on goods and services (at 2011 prices), 1971=100



Source: adapted from www.ons.gov.uk.