Economics Part 5

Introduction to the National Economy

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- In this companion, we will consider how the wider economy works, beyond just markets and goods and the individual's economic decision making.
- For the UK, the effectiveness of the economy has often been determined by the way that the government controls the relationship between consumers and producers.
- The UK has a democratically elected government which means that the direction of economic policy can alter depending on which group of people (and politicians) holds the most power.
- The government has several ways that it can influence the economy, including the use of legislation (laws) that will make individuals, businesses and consumers behave in a way that it requires. However, the tools and instruments available to the government are similar no matter who is in control.

Taxation

- In the UK, central taxes are collected by Her Majesty's Revenue and Customs (HMRC). Local councils will also collect taxes from individuals and businesses. Taxation can come in two forms:
  - Direct Taxation – any tax deducted directly from a worker's wages such as 'income tax' and 'National Insurance Contributions'. Direct taxes may also apply to the wealth and assets of individuals and businesses.
  - Indirect Taxation – any tax charged to the supplier of a good/service on sale of the produce. For example, Value Added Tax (VAT). An indirect tax is often paid for by the consumer and then collected by the government from the seller.

Direct Taxation

- The direct taxation process in the UK is often made up of four strands:
  - **Personal allowance** – a certain proportion of a worker's income will be 'tax free'. This is called a 'personal allowance' and will apply to everyone who must pay tax. This exists to ensure that lower paid workers pay a lower proportion of tax.
  - **Basic rate** – the 'basic rate' is the proportion of income (above the personal allowance) on which basic rate tax must be paid. In the UK, this rate has been set at 20% since 1992-93
  - **Higher rate** – a tax rate charged on higher incomes (note: high income workers will still have a personal allowance and pay the basic rate on the lower portion of their wages)
  - **Additional rate** – an even higher tax rate levied on incomes significantly above the average wage (for example income earned over £150,000 per year).

Direct Taxation

PAYE tax rate	Rate of tax	Annual earnings the rate applies to (above the PAYE threshold)
Basic tax rate	20%	Up to £37,700
Higher tax rate	40%	From £37,701 to £125,140
Additional tax rate	45%	Above £125,140

National Insurance

- National Insurance Contributions (NIC) – these are an additional direct tax charged by the UK government, paid partly by the worker and partly by their employer. Their main purpose is to fund state benefits and pensions. NICs can also be paid by self-employed people. The more NICs a worker has paid over a period of time the more that worker is entitled to some benefits should they need to claim them (such as the basic state pension).

Other Examples of Direct Taxation

- **Council tax** – charged by local councils and usually based upon the value of the property in which a person resides
- **Corporation tax** – a tax that is levied on the profits of companies (19% as of 2018)
- **Business rates** – these are a tax paid by businesses to their local authorities
- **Capital gains tax** – the tax on the profit made from selling an asset
- **Inheritance tax** – those who inherit assets above a certain amount will have to pay taxes on their inheritance

Examples of Indirect Taxation

- **Value Added Tax (VAT)** – set at 20% (2018) on almost every good and service purchased
- **Excise duties** – an additional tax on certain goods such as alcohol, cigarettes, some vehicles (vehicle excise duty), air flights (air passenger duty), betting and gaming
- **Customs duties** – taxes on imported goods
- **Landfill tax** (charged to businesses per tonne of waste that they dispose through landfill sites)
- **Climate change levy** – charged to all businesses based upon the amount of energy they use

ACTIVITY 1

Ben earns £25,000 per year and Amy earns £52,000 per year. If the personal allowance is stated as £10,000 per year, a 20% basic rate of income is charged on any income between £10,000 and £50,000 and a 45% higher rate of income is charged on any income over £50,000, how much income tax do Ben and Amy pay per year?

Ben

Amy

Other sources of Government Revenue

- The government has other sources of revenue alongside taxation. For example, it can earn money through sale of its own assets - such as selling state-owned banks to the private sector

Independent Task – 5 minutes

In 2018, children's car seats, cycle helmets and (physical) books were all exempt from VAT (i.e. no VAT was charged on these items). Using economic theory, explain the reason why the government may have exempted these items.

Government Spending

According to government records in 2017, rank these 5 areas from the highest to lowest in terms of the amount of money spent by the UK government:

Defence, Education, Health, Social Protection (benefits and pensions), Transport

Highest	
2nd	
3rd	
4th	
5th	

Government Spending

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Highest	**Social Protection**
2nd	**Health**
3rd	**Education**
4th	**Defence**
5th	**Transport**

Government Spending

- The Government decides each year how much money should be spent on each of the areas and requires the government office controlling those areas to stay within budget.
- What proportion of revenue should be spent on the different areas depends on the objectives of the government at the time. These objectives can change and, as such, the proportion of money spent can alter.
- For example, in 1990 the government spent approximately 4.1% of the country’s income on defence. By 2017, this amount had fallen to approximately 2.5% of the country’s income. This fall may be a sign of the relative threat-levels that the government considers are facing the UK, alongside other factors.
- Similarly, in 1990 the government spent approximately 4.2% of the country’s income on pensions. By 2017, that figure had risen to 7.9%. This reflects the fact that the UK has a growing population with a higher proportion at a retirement age.

Government Spending

The UK's major spending areas:

Social Protection	This includes welfare benefits and state pensions.
Health	This is primarily for the NHS and will include payments for wages, running costs and building of hospitals.
Education	Including payments for teachers and lecturers at schools and funding for payment of students.
General public services	This is payment for such services as transport, housing and environment, personal and social services.
Defence	Payment for wages of military personnel and for maintenance of equipment and buildings alongside payments for new machinery and weapons.
Public order and safety	These are payments for protection of UK citizens, primarily through payment for the police, the court system and the prison services.

Local governments will also spend money on: education, healthcare, police, local services such as parks and transport.

Progressive & Regressive Tax Systems

- **Progressive taxation** – use of higher taxation rates for higher income earners. This provides revenue to fund welfare benefits for poorer sections of society, and thus is a useful tool for redistributing income.
- **Regressive taxation** – takes a larger percentage of income from low-income earners than from high-income earners

UK Taxation

- The UK's direct taxation is often referred to as 'progressive' as those on higher incomes pay a higher proportion of their income in tax.
- There is an argument that Council taxes (charged on the value of the house) are not 'progressive'. Whilst in many cases houses of lower value will often be occupied by those on lower income (and vice versa), this is not always the case. For example, in London (where house prices have risen at the fastest rate in the UK) some people who have occupied houses for many years and have low incomes can live next door to people with much higher incomes. Here, the Council tax may be at the same rate for both levels of income.

UK Taxation

- Some indirect taxes may also be considered regressive:
  - Those on lower incomes have a higher tendency to participate in gambling and may pay a higher proportion of their income on gambling taxes.
  - Whilst higher income earners will often consume a higher amount of petrol, this is not usually a significantly larger amount. As such, the amount paid on petrol duties is likely to be a higher proportion of the overall income of low income earners.
  - Higher income earners tend to save more of their income. As such, a smaller proportion of their income is spent on goods and services and they will therefore pay a smaller proportion of their income on VAT

Justification of Regressive Tax Systems

- The government will often justify the existence of regressive taxes on the following grounds:
  - Duties will be charged on goods considered demerit goods and services to reduce their consumption.
  - The impact of the progressive income tax system more than compensates for any regressive nature of indirect taxes.

Independent Task – 10 minutes

Explain two possible economic advantages for an economy that has a progressive tax system.
1
2

Economic Growth

- Economic growth is the growth in GDP over time.
- Gross Domestic product (GDP) is the total market value of goods and services produced in an economy in a year. (Output).
- This total market value of output becomes the incomes for those who produce it. This income can be seen as wages, interest, profit and rent. If an economy experiences economic growth, both output and incomes are rising.

How is Economic Growth Measured?

- As governments see achieving economic growth as one of the main economic policy aims then it is important that the rate of growth is accurately measured. To do this the government needs to use the formula:

$$\text{Rate of economic growth} = \frac{\text{change in GDP between year 1 and year 2}}{\text{GDP in year 1}} \times 100$$

How is Economic Growth Measured?

- For example if a country has an original GDP of £400bn and the next year the GDP rises to £410bn, then the rate of growth is -

$$\frac{£10bn}{£400bn} \times 100 = 2.5\%$$

Independent Task – 5 Minutes?

ACTIVITY 1

Using the formula above calculate the following growth rates:-

In Year 1	In Year 2	Economic growth rate
200	203	
300	302	
500	512	

GDP Per Capita

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- We also use GDP per capita to help us compare living standards between countries. The figures give us an idea as to how much the average person in that country earns.

Independent Task – 5 Minutes

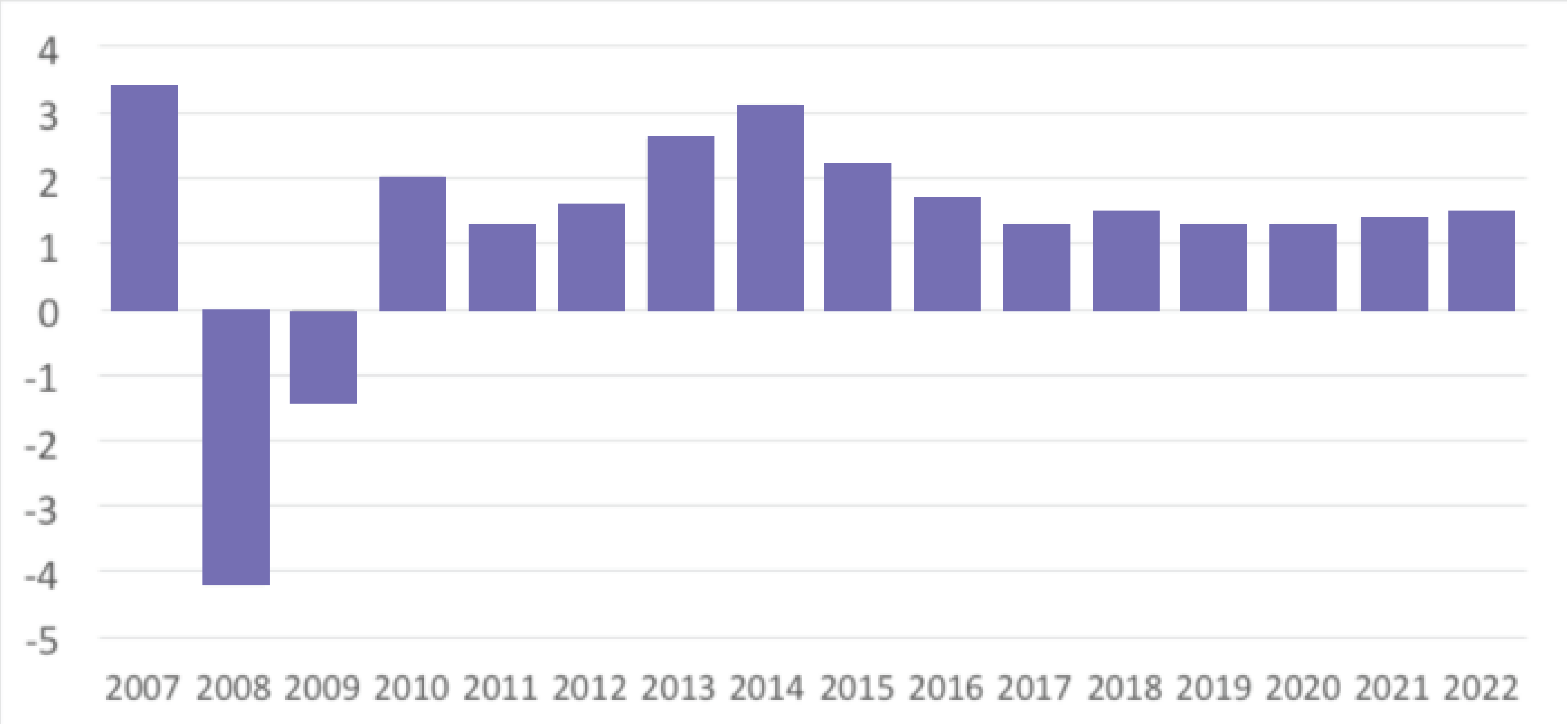
ACTIVITY 2

Calculate GDP per capita in each of the following cases
(£1bn = £1000m)

GDP(£bn)	Population (million)	GDP per Capita
600	60	
800	40	
500	12.5	

Analysing GDP Data

- The chart below shows the annual growth rate (%) for the UK economy between 2007 and 2022 (2018 – 2022 are forecasted). We can clearly see that growth rates are not the same year on year. The data for 2007 would show that the UK was in a boom period. The period for 2008 and 2009 shows the UK in a recession.



Source: ONS

Boom/Bust

- When a country is in a "boom" period it means there is significant economic growth. Some features of a boom period will be high economic output, higher wages, and low unemployment rates.

- In a "bust" period there is what is considered to be negative economic growth, this is known as a recession. This means the economy is shrinking. Some features of a bust period could be low economic output, lower wages and higher unemployment rates.

- For a country to be considered to be in recession they must have negative GDP growth for two consecutive quarters.

Independent Task – 5 Minutes

ACTIVITY 3
Explain what happens to GDP growth in a **Boom** period
Explain what happens to GDP growth in a **recession**

Determinants of Economic Growth

- When an economy can supply more goods and services over time then it experiences economic growth.There are a number of supply-side factors that can enable this to happen.You will remember from previous chapters that the factors of production are needed to produce goods and services. Therefore, the quality and quantity of them is of key importance.

Determinants of Economic Growth

- **Investment** – in capital goods and in human knowledge
- **Technology** – technological progress improves the quality of capital goods
- **Education and training** – affects the quality and quantity of work done
- **Labour productivity** – improving the output per worker in a given time period
- **The size of the workforce** – a larger labour force enables the economy to produce more
- **Natural resources** – for example, new supplies of oil or gas can stimulate growth.

Independent Task – 5 minutes

The collapse in oil prices that began in 2014 in Canada snuffed out Alberta's energy boom more quickly and deeply than anyone expected. The Bank of Canada governor Stephen Poloz trimmed the benchmark lending rate by a quarter point to 0.5 per cent and slashed the central bank's growth outlook. The bank effectively confirmed suspicions that the economy entered a recession by noting in a statement that "real GDP is now projected to have contracted modestly in the first half of the year." While Canadian consumers have helped offset the damage by their seemingly unending willingness to borrow and spend, the resulting debt that households have piled on now represents an economic risk in its own right—particularly if job and wage growth weaken. No wonder some believe Canada is tiptoeing around the edge of the abyss. You have a resource economy that has been blown apart, sitting on top of a housing bubble.

Now, the debate is how long and deep Canada's downturn could be. Prime Minister Stephen Harper blamed any slowdown on overseas events beyond Canada's control, declining to elaborate on just how Canada allowed itself to become so exposed in the first place. The hope continues to bethat the U.S. economy will fuel Canada's rebound. For deep structural reasons, Canadian manufacturing has been slow to recover, despite a weakening dollar making our exports, at least in theory, more attractive.

1 **What evidence is there that the Canadian economy is in recession?**
2 **Analyse why Canada lacked economic growth in 2016.**

Model Answer

1. The line "real GDP is now projected to have contracted modestly in the first half of the year" shows a reduction in GDP for 2 consecutive quarters (a recession)

2. Canada lacked economic growth in 2016 because of the fall in oil prices that began in 2014. Canada's economy was, and still is, heavily reliant on the success of the oil & gas industry, due to the large amounts of oil located within it. When the oil price falls this reduces the amount of revenue the country receives from this industry in turn reducing GDP.

   Subsequently, the prime minister cited "overseas events" as being damaging to Canada's economic prospects. This could be referencing a number of situations that might make it difficult for Canada to promote economic growth such as, war, trade deals or other geopolitical events. Furthermore, it is stated that due to "deep structural reasons" it was difficult for Canada's manufacturing to recover, suggesting that there is an inability of Canada's workforce and manufacturing sectors to adapt to economical change making it difficult for Canada to generate economic growth.

Government Policy

- The amount of government intervention in the economy can have a significant effect on growth. A mixed economy such as the UK is often considered the most efficient, whereas a command economic system such as North Korea tends to be inefficient.
- How much investment in infrastructure is undertaken by the government can also have a significant effect. Good transport and communication links are vital for a successful economy.
- The macro management of the economy is undertaken by the government. The UK government, for example, can affect both the demand and supply side of the economy.

Benefits of Economic Growth

- **A rise in living standards** – everyone, on average, has more output to consume than before. For example, from 1992 – 2008 there were 16 years of consecutive growth in the UK economy. Many people saw improvements in their living standards with more restaurant meals and foreign holidays.
- **A reduction in poverty** – with more tax revenues from incomes and spending the government can use these revenues to raise the living standards of those on lower incomes.
- **A rise in the welfare of the population** – the additional tax revenues can also be spent on health and education improving the general welfare of the population.
- **A rise in employment** – more workers will be needed to produce the extra output. This will enable the government to achieve its aim of a high rate of employment.

Costs of Economic Growth

- **Environmental costs** – the more goods and services we produce and consume, the more pollution will be caused.
- **Air pollution** – this can come from increased car usage and from and from the use of fossil fuels e.g. the burning of coal.
- **Global warming** – The increased worldwide output has led to global warming, which in turn has negative effects on the environment.
- **Congestion** – many of our urban areas have become overcrowded and suffer from traffic congestion. Also, there is increased pressure on services such as hospitals and schools.
- **Loss of non-renewable resources** – economic growth uses up natural resources that cannot be replaced We are particularly concerned about oil, gas, natural minerals and metals. However, we must also remember the wider damage to people animals and plants.
- **A lower quality of life** – although people may become materially better off, they may also experience changes to their lifestyles. These changes may involve moving into cities where life is busier and more stressful.
- **Inequalities of income and wealth** – the benefits of economic growth are not experienced equally by everyone. Indeed, the gap between the rich and the poor may actually become wider.
- **Inflation** – a rapid period of economic growth may also lead to rising prices.

Independent Task – 15 minutes

In the section above, we have considered the costs and benefits of economic growth. If you were living in a country such as the UK would you consider the **benefits of growth** still to be a major aim of government economic policy? Remember to consider the costs and benefits of growth before giving a definitive answer.