

WJEC (Wales) Economics A-level

Macroeconomics

Topic 2: Macroeconomic Objectives

2.3 Inflation and deflation

Notes



- 📖 **Inflation** is the sustained rise in the general price level over time. This means that the cost of living increases and the purchasing power of money decreases.
- 📖 **Deflation** is the opposite, where the average price level in the economy falls. There is a negative inflation rate.
- 📖 **Disinflation** is the falling rate of inflation. This is when the average price level is still rising, but to a slower extent. This means goods and services are relatively cheaper now than a year ago, and the purchasing power of money has increased.
- 📖 For example, a 4% increase in the price level between 2014 and 2015 would be inflation. A change from 4% to 2% is still inflation, but there has been disinflation where the price rise has slowed. If the change in the price level is now -3%, there is deflation.
- 📖 It is important to note that deflationary government policies aim to reduce AD, and do not necessarily result in deflation.

📖 **Calculating the inflation rate in the UK**

- 📖 This is done using the **Consumer Prices Index (CPI)**. It measures household purchasing power with the Family Expenditure Survey. The survey finds out what consumers spend their income on. From this, a basket of goods is created. The goods are weighted according to how much income is spent on each item. Petrol has a higher weighting than tea, for example. Each year, the basket is updated to account for changes in spending patterns.
- 📖 In the UK, it is a government macroeconomic objective for inflation to be at 2% + or – 1%. This is to maintain price stability.
- 📖 The key points when answering an exam question on CPI are:
 - A survey is used
 - Weighted basket of goods
 - Measures average price change of the goods
 - Updated annually

📖 **Limitations of CPI when measuring inflation**

- 📖 The basket of goods is only representative of the average household, so it is not accurate for households who do not own cars, for example, and therefore do not spend 14% of their income on motoring.



- 📖 Different demographics have different spending patterns.
- 📖 Housing costs account for about 16% of the index, yet this varies between people.
- 📖 CPI is slow to respond to new goods and services, even though it is updated regularly. Moreover, it is hard to make historical comparisons, since technology twenty years ago was of a vastly different quality, and arguably a different product altogether, than now.

📖 Retail Price Index (RPI)

- 📖 This is an alternative measure of inflation.
- 📖 Unlike CPI, RPI includes housing costs, such as payments on mortgage interest and council tax.
- 📖 This is why RPI tends to have a higher value than CPI.

📖 Causes of inflation

- **Demand pull:** This is from the demand side of the economy. When **aggregate demand** is growing unsustainably, there is pressure on resources. Producers increase their prices and earn more profits. It usually occurs when resources are fully employed.

The main triggers for demand pull inflation are:

- A depreciation in the exchange rate, which causes imports to become more expensive, whilst exports become cheaper. This causes AD to rise.
- Fiscal stimulus in the form of lower taxes or more government spending. This means consumers have more disposable income, so consumer spending increases.
- Lower interest rates makes saving less attractive and borrowing more attractive, so consumer spending increases.
- High growth in UK export markets means UK exports increase and AD increases.

- **Cost push:** This is from the supply side of the economy, and occurs when firms face rising costs. This occurs when:
 - Changes in world commodity prices can affect domestic inflation. For example, raw materials might become more expensive if oil prices rise. This increases costs of production.



- Labour becomes more expensive. This could be through trade unions, for example.
 - Expectations of inflation- if consumers expect prices to rise, they may ask for higher wages to make up for this, and this could trigger more inflation.
 - Indirect taxes could increase the cost of goods such as cigarettes or fuel, if producers choose to pass the costs onto the consumer.
 - Depreciation in the exchange rate, which causes imports to become more expensive and pushes up the price of raw materials.
 - Monopolies, using their dominant market position to exploit consumers with high prices.
- **Wage-price spiral:** an increase in wages means consumers have more disposable income, so AD increases. Higher wages also mean that firms face higher production costs. This puts an upward pressure on the average price level in the economy. Workers then demand higher wages to keep up with inflation, which puts further upward pressure on the price level. Consequently, a spiral emerges.
 - **Growth of the money supply:** If, for instance, the Bank of England printed more money, there would be more money flowing in the economy. Extreme increases in the money supply usually cause **hyperinflation**, when the rate of inflation is incredibly high and uncontrollable. It is only inflationary if the money supply increases at a faster rate than real output.
Quantitative Easing has been used by the European Central Bank to help stimulate the economy. Since the interest rates are already very low, it is not possible to lower them much more. This means the bank had to adopt another measure: pumping money directly into the economy. The bank bought assets in the form of government bonds using the money they have created. This is then used to buy bonds from investors, which increases the amount of cash flowing in the financial system. This encourages more lending to firms and individuals. The theory is that this encourages more investment, more spending, and hopefully higher growth. A possible effect of this is that there could be higher inflation.






The effects of inflation on:

- **Consumers**
 - Those on low and fixed incomes are hit hardest by inflation, due to its regressive effect, because the cost of necessities such as food and water becomes expensive. The purchasing power of money falls, which affects those with high incomes the least.



- If consumers have loans, the value of the repayment will be lower, because the amount owed does not increase with inflation, so the real value of debt decreases.
- **Firms**
 - Low interest rates means borrowing and investing is more attractive than saving profits. With high inflation, interest rates are likely to be higher, so the cost of investing will be higher and firms are less likely to invest.
 - Workers might demand higher wages, which could increase the costs of production for firms. This could cause inflation to increase further, since firms have to put up prices to make up for the higher costs of labour.
 - Firms may be less price competitive on a global scale if inflation is high. This depends on what happens in other countries, though.
 - Unpredictable inflation will reduce business confidence, since they are not aware of what their costs will be. This could mean there is less investment.
- **The government**
 - The government will have to increase the value of the state pension and welfare payments, because the cost of living is increasing.
- **Workers**
 - Real incomes fall with inflation, so workers will have less disposable income.
 - If firms face higher costs, there could be more redundancies when firms try and cut their costs.

The effects of deflation

-  The UK experienced a short period of deflation in April 2015, when prices fell by 0.1%. Before this, the UK experienced deflation in the 1960s.
-  Deflation causes the real value of money to increase. For example, if average prices fell by 5%, then spending £1 today will buy 5% more.
-  Deflation discourages spending because it makes goods and services cheaper in the future. Consumers believe that, if goods are cheaper tomorrow, it is not worthwhile buying them today.
-  This can result in economic decline and increasing rates of unemployment. Deflation can worsen the effects of economic stagnation. It can cause a deflationary spiral.
-  Deflation makes the real value of debt higher. This means that consumers with high levels of debt find it harder to pay it off, since a larger proportion of their income will be used to make repayments.







- Since consumers have less disposable income, the level of spending in the economy falls, which worsens the effects of a recession. Wages are also likely to fall, since firms make lower profits.
- There could be even lower growth and worse rates of unemployment if the real interest rate increases. If the interest rate is 0% and the deflation rate is 5%, the real interest rate is 5%. This means that saving is encouraged, because the rate of return is higher.

Fisher's equation of exchange and the Quantity Theory of Money

- The Quantity Theory of Money states that there is inflation if the money supply increases at a faster rate than national income.
- Fisher's equation of exchange is $MV = PQ$. T can be used instead of Q, although using Q means that PQ is nominal national income and overcomes the difficulties associated with the inclusion of intermediate transactions.
- M refers to the supply of money, V is the velocity of circulation, P is the price level and Q is the quantity of real goods sold (real GDP). T represents transactions. However, it is difficult to measure T.
- Therefore, the value of expenditure on goods equals the value of total output ($MV=PQ$).
- The equation assumes that velocity is constant, and that Q is independent of the supply of money. Only supply-side factors affect Q. It is assumed V is constant because the frequency that workers are paid does not change often.
- The equation argues that increasing the money supply causes inflation.
- When the money supply increases, consumers have more money to spend. This causes AD to shift to the right. Firms then increase supply in the short run. A positive output gap occurs, which is inflationary.
- As a result, more workers are employed, so wages increase. This means costs increase for firms, so they put up prices.
- This inflationary pressure means the real value of money falls. Since money can buy less, there is a contraction in demand.
- Workers demand higher wages to make up for the increase in inflation. This leads to a left shift in the SRAS curve.
- The output in the economy returns to equilibrium, but the price level is higher.



Solutions to inflation

-  If governments employ deflationary fiscal and monetary policy, the effects of demand-pull inflation could be reduced. For example, higher rates of income tax could cause disposable income to fall, so consumers spend less.
-  However, higher income taxes may result in workers demanding higher wages to make up for it. This could increase costs of production for firms and if workers decide that it is not economically worthwhile to work, they might leave the labour force. This results in a fall in the productive capacity of the economy.
-  Interest rates could also be used. A high interest rate is likely to deter consumers from borrowing and encourage saving. This is likely to cause the rate of inflation to fall. However, this is likely to cause investment to fall, which will cause AS to fall and put an upward pressure on the average price level.
-  Sometimes supply-side policies might be used. If the increase in the rate of AS can match that of AD, economic growth can occur without upward pressure on inflation.

