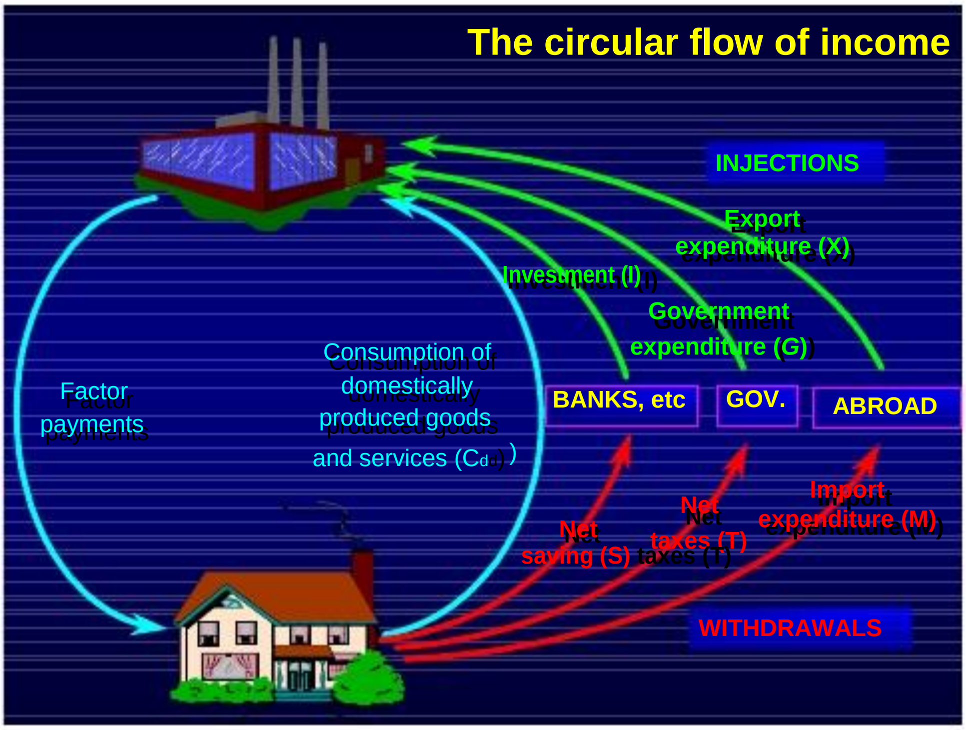


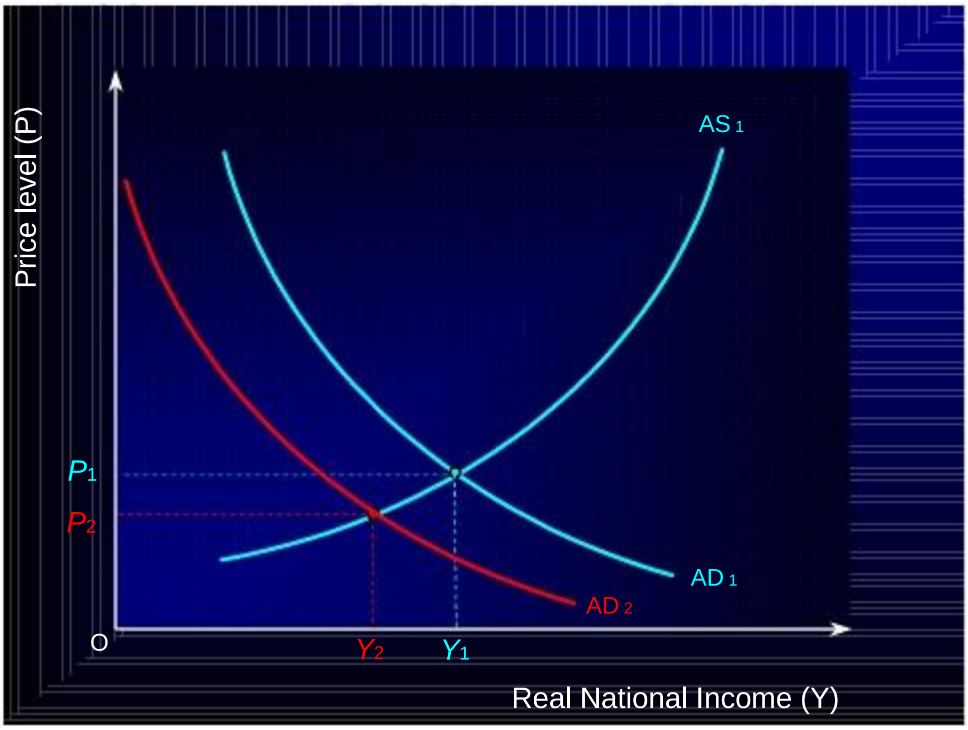
The Aggregate Demand Curve

Aggregate demand normally rises as the price level falls. This can be explained in three main ways:

- **Real money balances effect:** As the price level falls, the real value of money balances held increases. This increases the real purchasing power of consumers.
- **Prices and interest rates:** A lower price level increases the real interest rate - there will be pressure on the monetary authorities to cut nominal interest rates as the price level falls. Lower nominal interest rates should encourage an increase in consumer demand and planned investment.
- **International competitiveness:** If the UK price level is lower than other countries (for a given exchange rate), UK goods and services will become more competitive. A rise in exports adds to aggregate demand and therefore boosts national output.

Shifts In Aggregate Demand

A change in one of the components of aggregate demand will cause a shift in the aggregate demand curve.



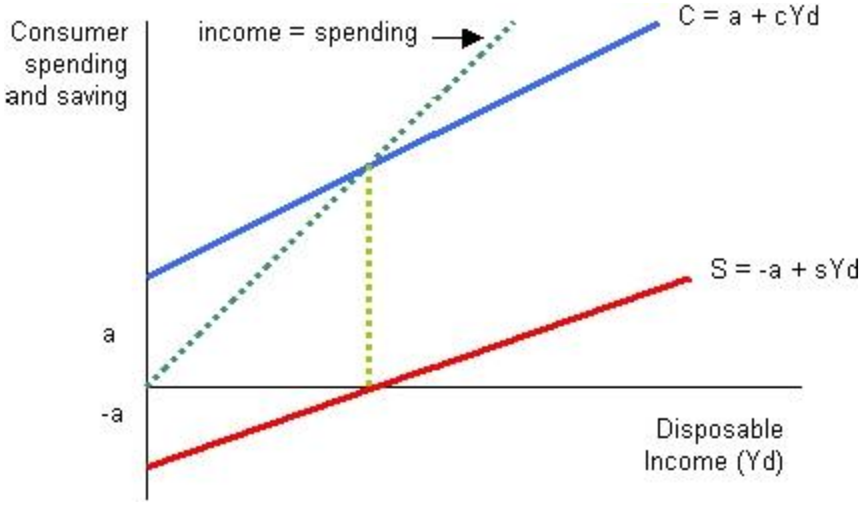
The result of the inward shift of AD is a contraction along the short run aggregate supply curve and a fall in the real level of national output (i.e. a recession). This causes downward pressure on the general price level.

If aggregate demand shifts outwards (perhaps due to increased business confidence, an economic upturn in another country, or higher levels of government spending), we expect to see both a rise in the price level and higher national output.

CONSUMPTION AND SAVINGS

Household spending accounts for nearly two thirds of total (aggregate) demand for goods and services in the economy. It is not surprising that macro economists spend a large amount of time researching trends in consumer spending as they build up a picture of how the British economy operates.

THE CONSUMPTION AND SAVINGS FUNCTION



According to the Keynesian consumption function, savings are positively related to the level of disposable income. At low levels of income, total spending may exceed income causing **dis-saving.** As income rises, total savings rise - the gradient of the savings function is given by the marginal propensity to save

TRENDS IN THE SAVINGS RATIO

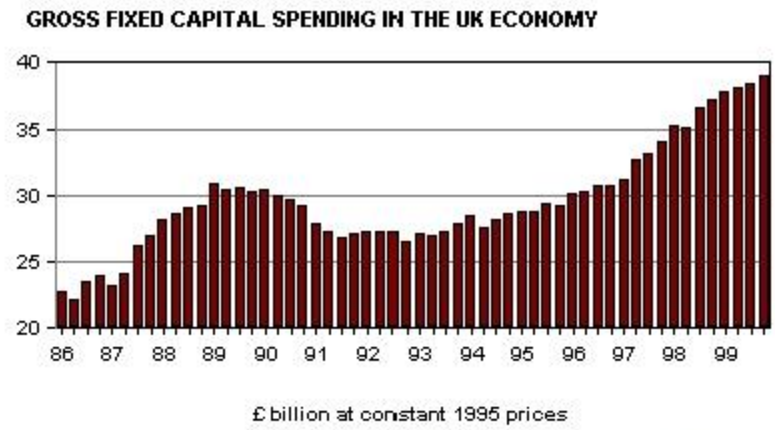
For most of the post-war period the trend in the savings ratio was upward. Rising real incomes and living standards gave people the basic resources to save. High inflation and high interest rates in the 1970s also acted as an incentive to save – not least be-cause high-interest bearing accounts offered a hedge against the damaging impact of inflation on the real value of savings.

From 1985-88 there was a dramatic fall in the savings ratio and the underlying reasons were not hard to find. This period coincided with the infamous Lawson Economic Boom – with highly expansionary policies being pursued that encouraged fast growth of consumer demand. Lower interest rates, much easier access to consumer credit and a booming housing market caused a surge in borrowing.

the government's popularity, then consumption will remain unchanged. If the tax cut is seen as permanent then this may cause increased spending.

INVESTMENT

Investment is spending on capital goods by firms and government, which will allow increased production of consumer goods and services in future time periods. Be careful not to confuse the economist's definition of investment with another interpretation - that investment involves putting funds into financial assets such as stocks and shares.



The chart below shows the annual percentage change in capital investment spending in the British economy since 1975. You can see that investment demand is quite volatile from year to year. Indeed in years of economic recession, the real value of investment spending can fall quite sharply because businesses decide to postpone or cancel investment projects.

Investment spending across the UK economy has increased (in real terms) in each of the last eight years partly because the economy as a whole has enjoyed a period of sustained economic growth. Service industries have enjoyed the lion's share of this spending on capital goods, but we have also seen large scale increases in capital expenditure in new economy sectors such as information technology and communication industries.

GROSS AND NET INVESTMENT

An import distinction to make is between gross and net capital investment spending. Net investment is positive when gross investment is higher than depreciation or capital consumption, then there will be an increase in the

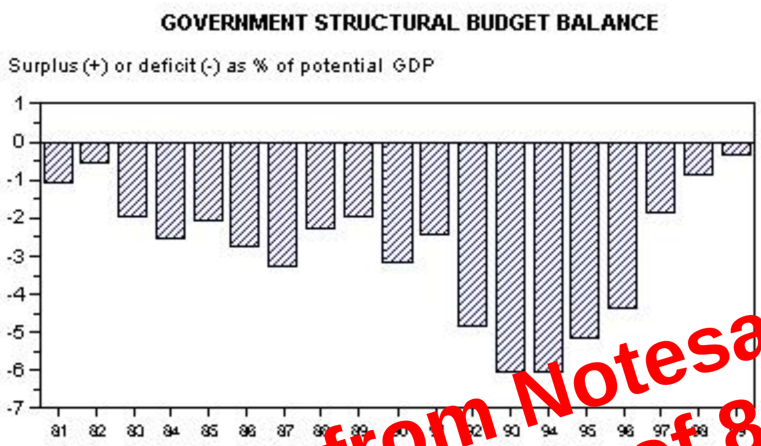
LABOUR'S GOLDEN RULE FOR GOVERNMENT BORROWING

Gordon Brown introduced the Golden Rule in his first budget statement in July 199. When a government borrows only to finance investment and not to fund day to day spending, it is following the Golden Rule.

Government spending on current goods and services and social security benefits must be met by revenue from taxes, but investment for the future (asset accumulation) can be met by borrowing.

STRUCTURAL AND CYCLICAL BUDGET BALANCES

In the recession / slowdown phase of the economic cycle government finances worsen because tax revenues slow down and social security payments start to rise. The structural budget balance seeks to make an adjustment for the effects of the economic cycle.



The chart above shows the annual structural budget balance for the UK using OECD estimates. The UK has run a structural deficit in each year although the forecast for 1999 is the lowest yet. This suggests that steps to control government spending have been successful. Tax revenues have also grown considerably - in part because of the introduction of self-assessment a few years ago.

THE NATIONAL DEBT

The National Debt is the accumulated debt built up by the government over a number of years that has not yet been repaid (i.e. the debt issued to finance government spending has not yet "matured" - been paid back to holders of the debt).

One way of measuring the scale of Government debt is by looking at the debt - to - GDP ratio. The trend in this for the UK economy and also the Euroland economies is shown in the chart below

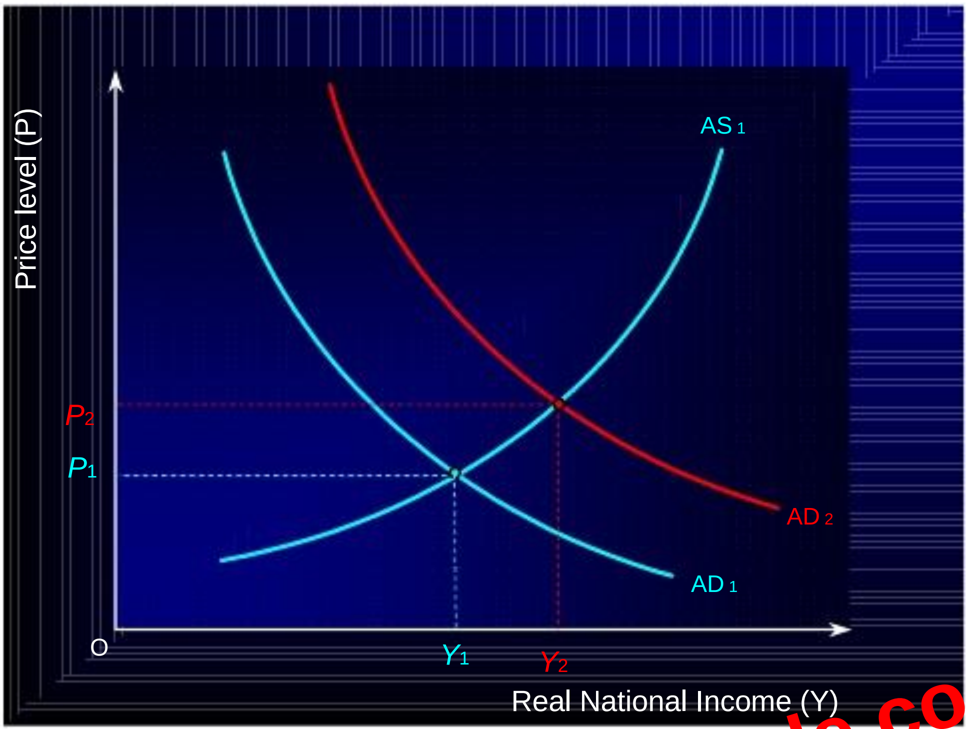
The index is weighted according to the proportion of income spent by the average household on categories of goods such as food and housing. These are periodically changed to reflect changing consumer spending patterns in the economy. For example the weighting attached to food has fallen as average living standards have grown. The weighting attached to leisure services and transport has increased because these categories of spending have a relatively high income elasticity of demand.

RPI WEIGHTS (%)
Food 13.6
Catering 4.9
Alcohol 8.0
Tobacco 3.4
Housing 18.6
Fuel & Light 4.1
Household Goods 7.2
Household Services 5.2
Clothes 5.6
Personal Goods 4.0
Motoring 12.8
Fares 2.0
Leisure Goods & Services 10.6

UNDERLYING INFLATION (RPIX)

The underlying rate of inflation, known as RPIX, was originally set a target of between 1-4%. However, the Labour Government's target is for an average of rate of growth of 2.5% over the duration of this parliament which ends in 2002. Inflation is allowed to move between 1% either side of the 2.5% benchmark. The Bank of England has been given the responsibility for meeting the inflation target. The chart below tracks RPIX also known as underlying inflation for the UK since 1988.

Demand pull inflation can be illustrated graphically using aggregate demand and aggregate supply analysis.



Aggregate supply (AS) shows the total supply of goods and services that firms are able to produce at each and every price level. At low levels of output when there is plenty of spare productive capacity, firms can easily expand output to meet increases in demand, resulting in a relatively elastic AS curve.

As the economy approaches full employment (or full capacity), labour and raw material shortages mean that it becomes more difficult for firms to expand production to meet rising demand. As a result, the AS curve becomes more inelastic. When aggregate demand (AD) increases from AD_1 to AD_2 the economy is still operating at relatively low levels of capacity. Output can expand relatively easily so firms will only implement small increases in prices from P_1 to P_2.

When aggregate demand increases from AD_1 to AD_2 the economy is moving towards the full employment of factors of production. Many firms choose to increase price to widen profit margins. Shortages of factor inputs mean that the firms' costs of production start to rise.

Furthermore, it is likely that, as employment in the economy grows, demand for goods and services will become more inelastic. This will allow firms to pass on large price increases (P_1 to P_2) without any significant fall in demand.

Main causes of increased aggregate demand:

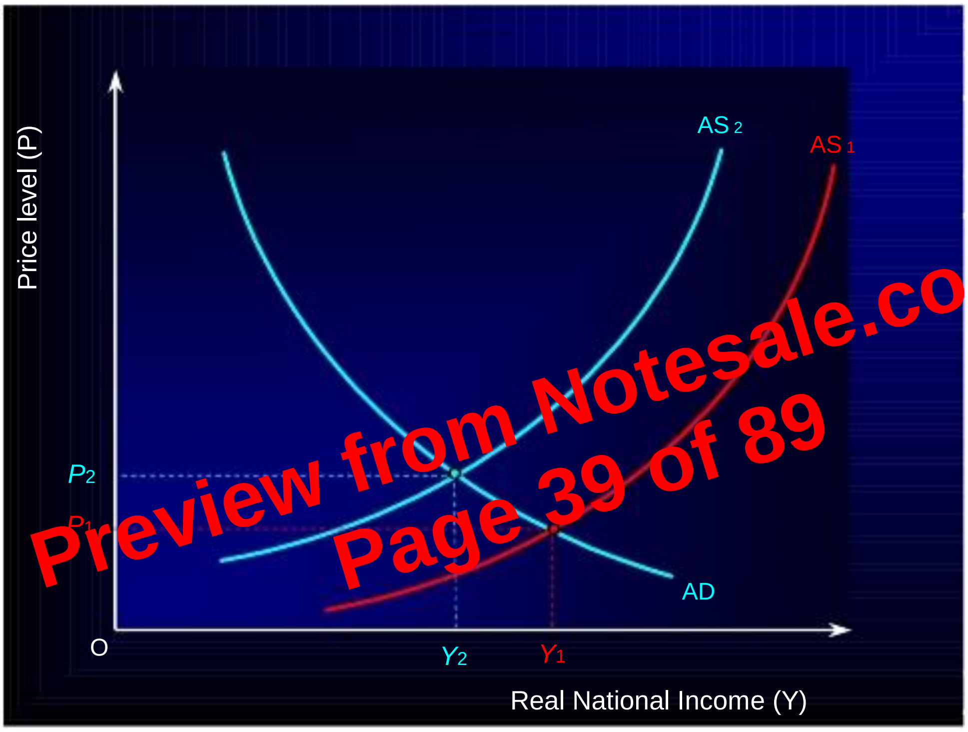
- Rapid growth of household consumption
- Increases in government spending

- Injections of demand from higher exports

COST PUSH INFLATION
This occurs when firms increase prices to maintain or protect profit margins after experiencing a rise in their costs of production.
The main causes are:

- Growth in Unit Labour Costs
- Rising input costs
- Increases in indirect taxes
- Higher import prices (Imported inflation)

An increase in input costs will mean that firms can produce less at each and every price level and, as a result, the AS curve will shift to the left from AS_1 to AS_2.



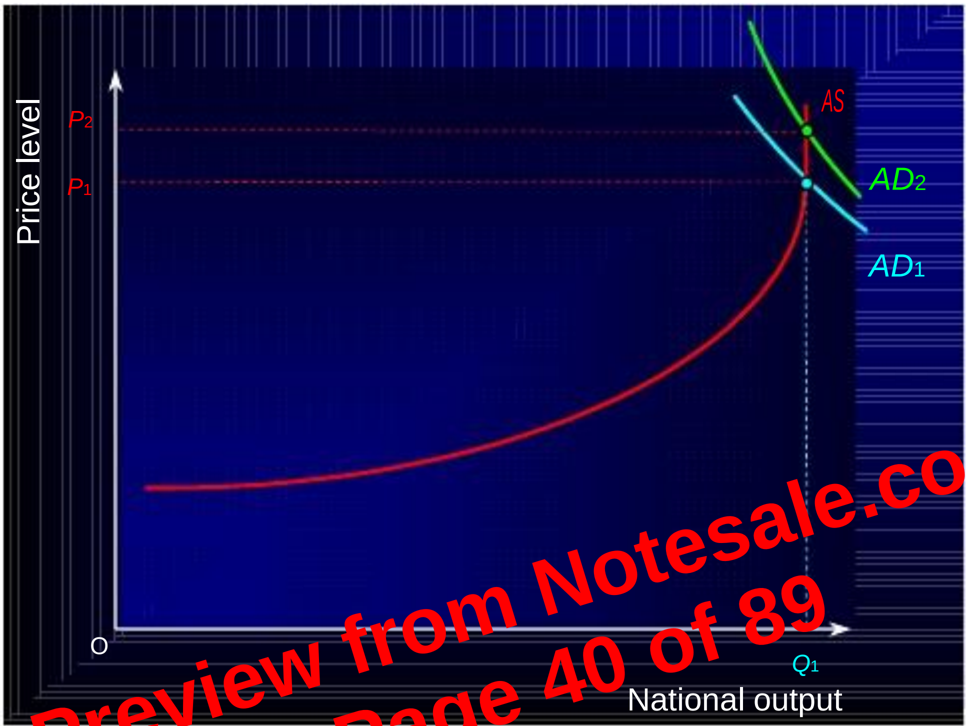
At the new equilibrium level of national output, the economy is producing a lower level of output (Y_1) at a higher price level (P_1). Higher cost push inflation therefore causes a contraction in real output as well a higher average price level.

Will an increase in a firm's costs always feed through into inflation?
No, because a business can absorb an increase in costs by reducing its profit margin. An example of this occurred after the devaluation of Sterling in September 1992. The fall in the value of the pound caused a rise in the cost of imported fuel and raw materials. Although input costs rose in 1993, this increase did not fully feed through into the prices of goods and services leaving the factory gate, as measured by Producer Prices.

Many firms were forced to reduce profit margins and absorb the increase in costs or face a loss in market share. This was due to the high level of spare capacity in the economy. Effectively, firms were facing elastic demand curves and any increases in price would have resulted in a fall in demand and total revenue.

Inflationary Gaps

When aggregate demand exceeds an economy's productive potential there is an inflationary gap. We tend to see rising inflation and a worsening trade situation at these times



CONTROLLING AN INFLATIONARY GAP

The government may use monetary and or fiscal policy to help reduce the size of the inflationary gap. An improvement in the supply-side performance of the economy would also achieve this.

- **Monetary Policy:** Higher interest rates to curb consumer demand
- **Fiscal Policy:** A rise in the burden of taxation to reduce real disposable incomes
- **Supply-side Policy:** Measures to increase productivity and efficiency. This leads to a rise in aggregate supply and reduces the amount of excess demand in the long run.

Inflationary gaps can arise when the economy has grown for a long time on the back of a high level of aggregate demand. Total spending may rise faster than the economy's ability to supply goods and services. As a result, actual GDP may exceed potential GDP leading to a positive output gap in the economy.

explaining the continued low rates of inflation in the British economy over the last ten years.

Monetary Inflation

The Monetarist explanation of inflation operates through the Fisher equation.
$M.V = P.T$
M = Money Supply V = Velocity of Circulation
P = Price level T = Transactions or Output

As Monetarists assume that V and T are fixed, there is a direct relationship between the growth of the money supply and inflation. The mechanisms by which excess money might be translated into inflation are examined below.

Individuals can also spend their excess money balances directly on goods and services. This has a direct impact on inflation by raising aggregate demand. The more inelastic is aggregate supply in the economy, the greater the impact on inflation.

The increase in demand for goods and services may cause a rise in imports. Although this leakage from the domestic economy reduces the money supply, it also increases the supply of pounds on the foreign exchange market thus applying downward pressure on the exchange rate. This may cause imported inflation.

If excess money balances are spent on goods and services, the increase in the demand for labour will cause a rise in money wages and unit labour costs. This may cause cost-push inflation.

Economic Policies To Control Inflation

Policies to control inflation need to focus on the underlying causes of inflation in the economy. For example if the main cause is excess demand for goods and services, then government policy should look to reduce the level of aggregate demand. If cost-push inflation is the root cause, production costs need to be controlled for the problem to be reduced.

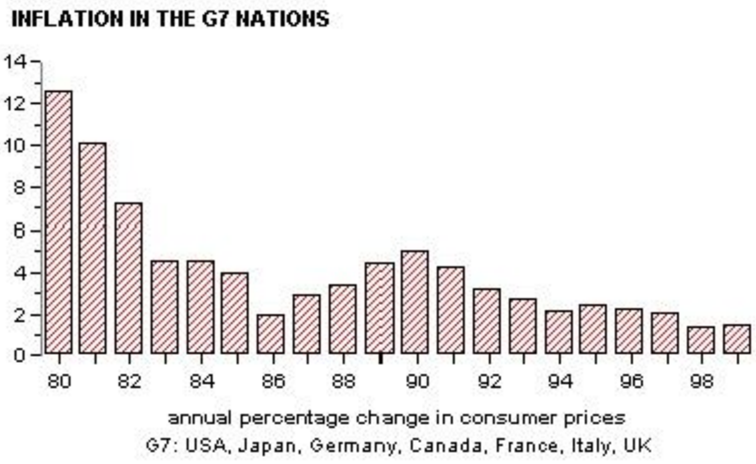
MONETARY POLICY - INTEREST RATES

Since May 1997, the Bank of England has had operational independence in the setting of official interest rates in the United Kingdom. They set interest rates with the aim of keeping inflation under control over the next two years.

Monetary policy can control the growth of demand through an increase in interest rates and a contraction in the real money supply. For example, in the late 1980s, interest rates went up to 15% because of the excessive growth in the economy and contributed to the recession of the early 1990s. This is shown in the chart above

Higher interest rates reduce aggregate demand in three ways;

- Discouraging borrowing by both households and companies



Most economists believe that disinflation or falling inflation is beneficial for the economy. A stable price level can lead to better decisions and a more efficient use of scarce resources. Lower inflation also helps to stabilize inflationary expectations. A decline in prices after an improvement in productivity is allows companies to cut costs and prices, thereby raising living standards.

The type of deflation that analysts fear is the kind that is broadly-based throughout the economy, long-lasting, and symptomatic of a weak economy stuck in recession. When prices are falling , consumers may decide to postpone purchases in the expectation of buying the item at a cheaper price later on. This causes a fall in demand and can create further price declines.

Deflation also causes real interest rates to rise, curbing demand. As well, falling asset prices (including housing and equities) reduce personal sector wealth and inflate the real value of debt resulting in higher business failures and personal bankruptcies. It is clear therefore that deflation in the economy brings risks as well as opportunities. This is something that a government and the monetary authorities (i.e. the Central Bank) might be concerned to avoid.

DEFLATION AND ECONOMIC POLICY

Deflation can normally be controlled by an expansionary monetary policy with the Central Bank or the Government allowing the money supply to expand. This causes interest rates to fall and stimulates consumer spending and investment demand. Occasionally though, when prices are falling, lenders may call in loans or refuse to lend out to potential borrowers. This is known as a credit crunch.

Cutting interest rates may not be sufficient during a credit crunch. In this case, expansionary fiscal policy (lower direct and indirect taxes and higher government spending) is often prescribed to cure deflation. One reason deflation is difficult to cure is that nominal interest rates cannot fall below zero, while prices of goods and services can fall for a long time. In this event, monetary policy is unable to prevent higher real interest rates and the economy spirals downwards towards a slump caused by falling prices, contracting output, falling investment, plant closures and increasing levels of job losses in those industries affected.

Areas of high unemployment will also see a decline in **real income** and **spending** together with a rising scale of **income inequality**. As younger workers are more geographically mobile than older employees, there is a risk that areas with above average unemployment will suffer from an ageing potential workforce - making them less attractive as investment locations for new businesses.

The duration of unemployment affects the economic and social costs. It is clear therefore that unemployment carries substantial **economic** and **social costs**. These costs are greatest when long-term structural unemployment is high. Indeed many government focus their labour market policies on improving the employment prospects of the long-term unemployed.

THE MAIN CAUSES OF UNEMPLOYMENT

In a modern economy unemployment has a variety of causes. Some of them relate to the general level of economic activity, others are the result of a failure of the labour market in an economy to work optimally.

Among the main types of unemployment we can consider:

- Real wage unemployment
- Demand deficient unemployment
- Frictional unemployment
- Structural unemployment
- Hidden unemployment

REAL WAGE UNEMPLOYMENT

Real wage unemployment is a form of **dis-equilibrium unemployment** that occurs when **real wages** for jobs are forced above the market clearing level.

Traditionally, **trade unions** and **wages councils** are seen as the institutions causing this type of unemployment although the importance of trade unions in the UK labour market has diminished significantly over recent years and this has not stopped unemployment reaching nearly three million twice in the last twenty years.

on equilibrium national income. The government could raise current expenditure (for example raising pay levels in education and the health service) or expand spending on capital projects which add to the stock of capital (for example spending on new roads, new hospitals or other major infrastructural projects). Sustained economic growth provides a platform for more jobs to be created in the economy.

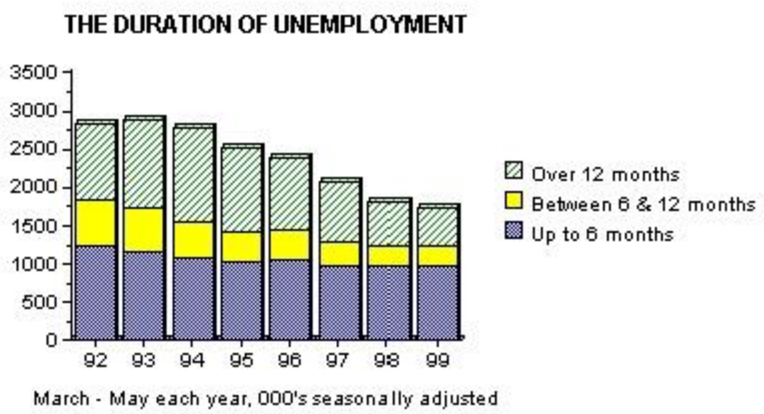
Lower Taxation
A reduction in direct taxation increases consumers' disposable income and should boost household spending. The effect may be greater if taxes are cut for people on lower than average incomes. These tax-payers are likely to spend a greater percentage of their disposable income.

Lower interest rates
A relaxation of monetary policy through lower interest rates encourages the demand for credit, reduces saving and increases consumers' real 'effective' disposable incomes; all of which will boost consumption and demand. It may also encourage firms to invest, as the marginal cost of investment will fall. Remember that interest rates are not set by the government. The Bank of England now sets interest rates each month at the meetings of the Monetary Policy Committee.

Depreciation of the exchange rate
A lower value for the pound should lead to a rise in the orders of exports from UK firms and to a reduction of import penetration by making exports cheaper and imports more expensive.

Remember the importance of time lags!
Government policies to stimulate increased aggregate demand for domestic output take time to have their effect. There are variable time lags between the government reflating the economy using fiscal and or monetary policy and the final effect on output and employment in specific industries.

STRUCTURAL UNEMPLOYMENT



However, if the government reduced the real value of unemployment benefits, or limited the duration of a claim, search times between jobs could be reduced even further as workers would have to quickly take on new positions before their financial situations deteriorated.

Better information on job vacancies in the labour market can help to reduce job search.

Cuts in direct taxes

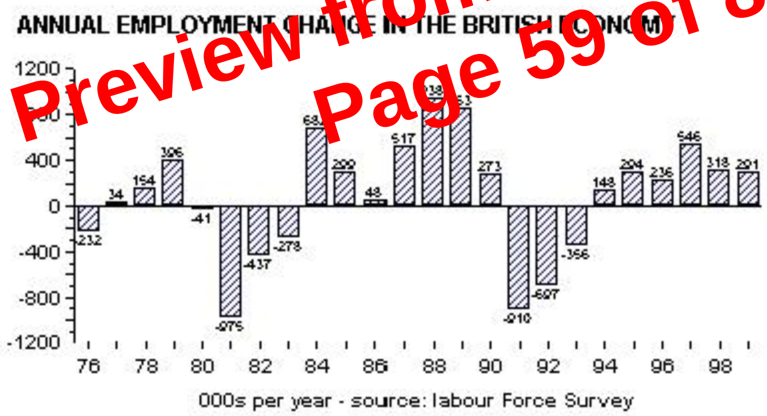
The government could reduce direct taxes for the low paid to increase the post tax wage and, therefore, encourage them to find work more quickly. The Labour Government is introducing a 10% starting rate of tax to encourage more low income groups back into work.

Most analysts believe that tax cuts on their own are insufficient to reduce frictional unemployment. Complementary reforms to the benefits system to reduce the problem of the poverty trap may also be needed.

THE CHANGING LEVEL AND PATTERN OF EMPLOYMENT

Changes in the level of employment

The cyclical nature of the British economy is shown in the chart below. It shows the annual changes in total employment using data from the Labour Force Survey.



In the last two recessions we have seen severe cut-backs in employment levels throughout the economy. This had led to high unemployment and posed major problems for economic policy-makers. However in recent years the performance of the economy in creating and sustaining a higher level of employment has improved. Total employment has increased in each of the last six years. Despite fears of recession last year, the total number of people in paid work increased by 291,000.