Inflation and Monetary Policy

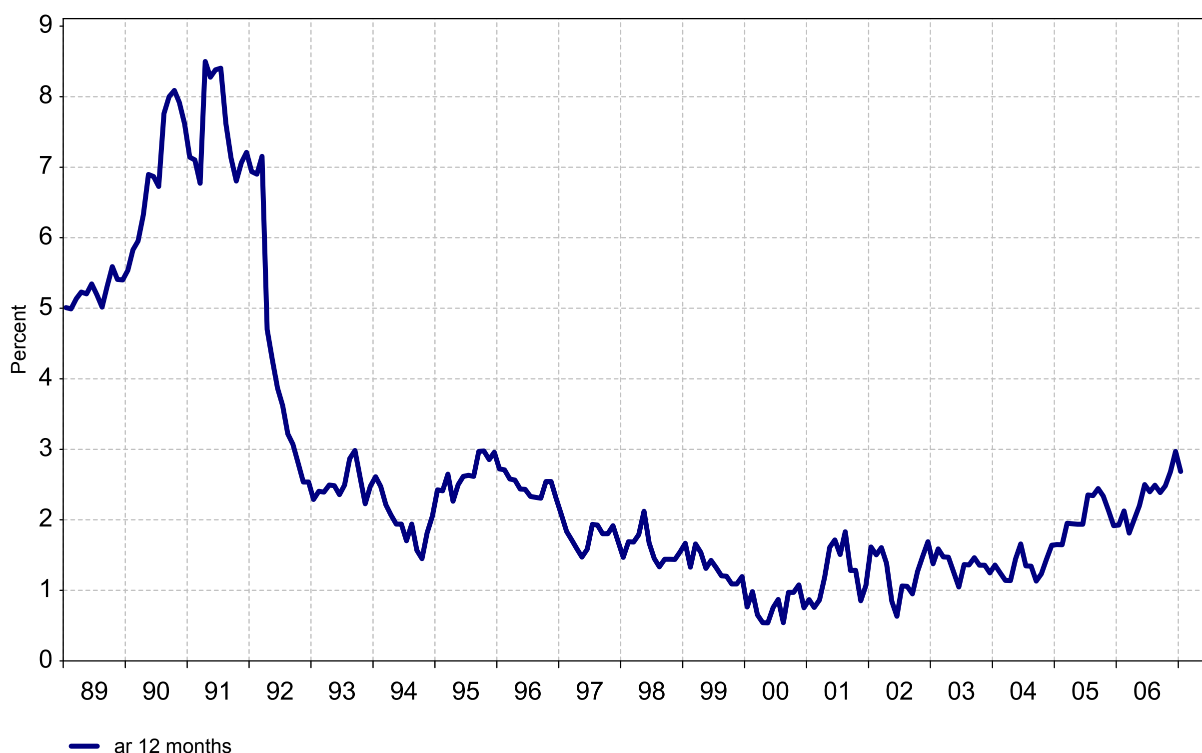
In this chapter we review developments in cost and price inflation in Britain and discuss the contribution that monetary policy has made to maintaining steady growth and low inflation. Is it true that Britain is no longer a high inflation country? Or are there dangers that inflationary pressures will once again come back to haunt the economy?

Inflation is best defined as a sustained increase in the general price level. The **rate of inflation** is measured by the **percentage change in the level of consumer prices.** The Government has chosen an inflation target of 2% using the **consumer price index** having switched to this measure of inflation in December 2003. Formerly there was a target for the retail price index.

The **consumer price index** (CPI) is a **weighted price index** which measures the monthly change in the prices of a basket of goods and services. The spending patterns on which the index is weighted are revised each year, using information from the Family Expenditure Survey. The expenditure of some of the higher income households, and of pensioner households mainly dependent on state pensions, is excluded. As spending patterns change, the weightings used in calculating the CPI are altered.

It is the job of the **Bank of England** and the **Monetary Policy Committee** to **set official short-term interest rates** so that **aggregate demand** is controlled and the inflation target is reached over a two year forecasting horizon. Since the Bank of England was made independent in May 1997, inflation has stayed within target range although in December 2006 the rate of inflation touched 3%, right on the upper limit of the inflation target. If inflation is above 3%, the governor of the Bank must write an open letter to the Chancellor explaining the reasons for the inflation overshoot and the measures the Bank is taking to bring inflation back into target range.

For several years, Britain has had one of the lowest rates of inflation inside the European Union. The recent data for consumer price inflation in the UK is shown in the chart below.



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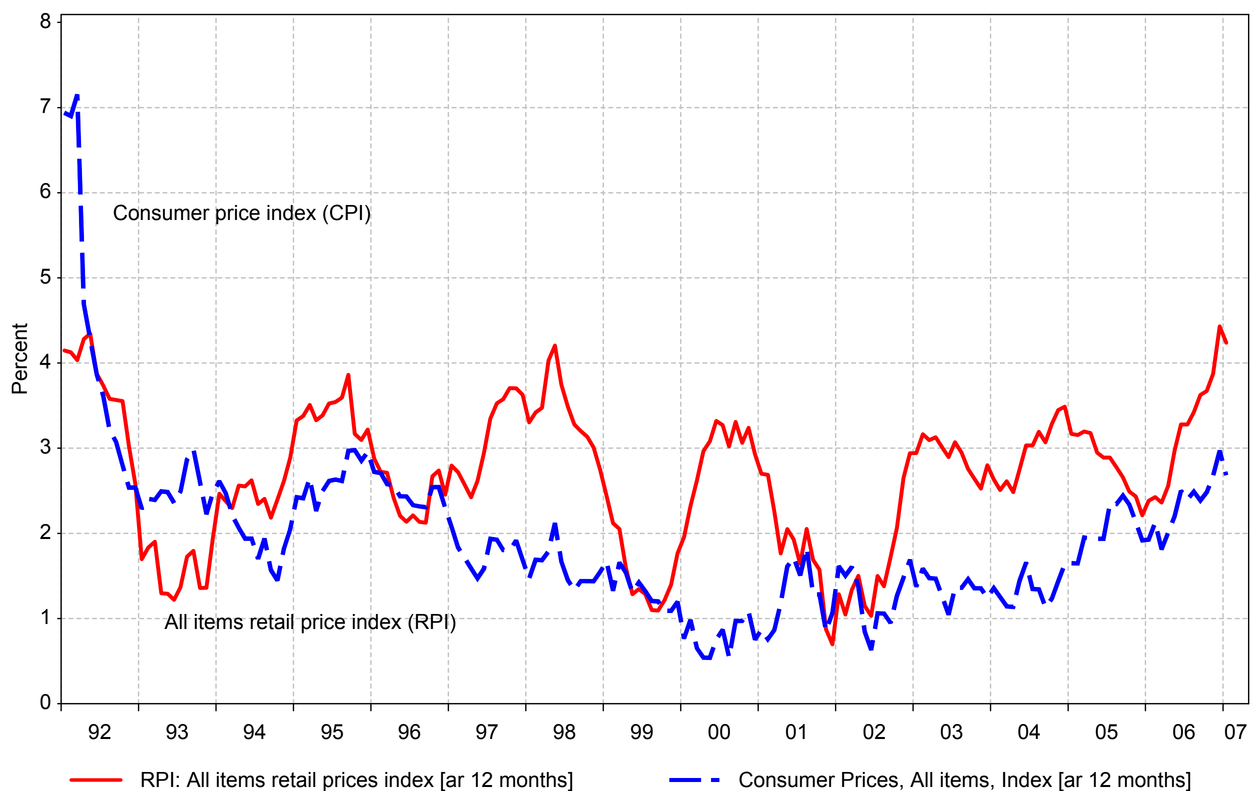
The choice of the consumer price index as the basis for the inflation target has come under growing criticism. The core problem is that the published CPI inflation figure frequently bears little resemblance to the inflation rates experienced by millions of households across the UK. This prompted the Office of National Statistics in January 2007 to launch a new website which allows people to make their own personal inflation calculations based on their own individual spending patterns.

Limitations of the Consumer Price Index as a measure of inflation

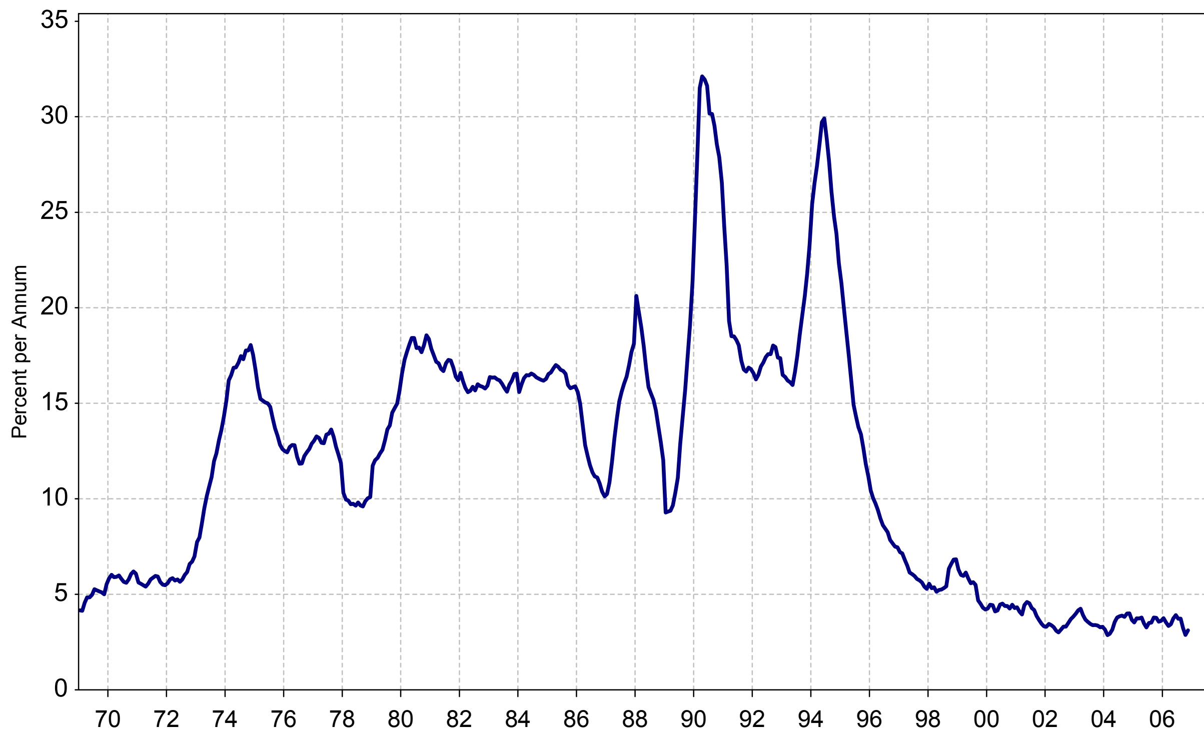
- **The CPI is not fully representative:** Since the CPI represents the expenditure of the 'average' household, it may be inaccurate for the 'non-typical' household. 14% of the index is devoted to motoring expenses - inapplicable for non-car owners. Single people have different spending patterns from households that include children, young from old, male from female, rich from poor and minority groups. We all have our own 'weighting' for goods and services that does not coincide with that assigned for the consumer price index.
- **Housing costs:** The 'housing' category of the CPI records changes in the costs of rents, property and insurance, repairs. It accounts for around 16% of the index. Housing costs vary greatly from person to person, from the young house buyer, mortgaged to the hilt, to the older householder who may have paid off his or her mortgage. Mortgage payments are not part of the CPI figure.
- **Changing quality of goods and services:** Although the price of a good or service may rise, this may be accompanied by an improvement in quality as the good. It is hard to make price comparisons of, for example, electrical goods over the last 20 years because new audio-visual equipment is so different from its predecessors. In this respect, the CPI may over-estimate inflation. The CPI tends to be slow to respond to the emergence of new products and services.



Our chart above tracks the two published measures of inflation – the retail price index (RPI) and the consumer price index (CPI). The RPI figure is more volatile because the calculation includes mortgage interest repayments which will vary as base interest rates are changed as part of monetary policy. But consistently over the last ten years, the RPI inflation rate has been above the CPI measure. Indeed by the end of 2006 RPI inflation was running at above 4 per cent, a worrying sign given that many pay negotiations take the RPI figure as the starting point for wage demands.

Lower global inflation

Britain has not been alone in experiencing much lower inflation rates since the high and volatile inflation of the 1970s and 1980s. There has been a fall in average inflation rates in most of the world's developed countries over the last fifteen years. Indeed lower inflation seems to have become a global phenomenon. This is largely the result of "positive supply shocks" occurring within the world economy including the effects of **globalization** and **technological changes** which are reducing the **unit costs of production**. The inflationary threats are likely to come from the **world's commodity markets** where large "spikes" in prices including that of oil, gas and other energy supplies have been seen over the last few years. That said, thus far, the inflation in commodity and energy markets has not spilled over into inflation in the markets for goods and services. As our chart below makes clear, the annual rate of price inflation in the global economy as measured by the International Monetary Fund (IMF) reached a thirty five year low in 2006.



The main causes of inflation

Inflation can come from several sources: Some come direct from the **domestic economy**, for example the decisions of businesses such as electricity and gas suppliers in the UK to raise their prices because of higher oil prices, or the pricing strategies of the leading food retailers based on the strength of demand and competitive pressure in their markets. A rise in valued added tax (VAT) would also be a cause of increased domestic inflation because it increases production costs some of which are passed onto consumers in higher prices.

Inflation can also come from **external sources**, for example a rise in the price of crude oil or other imported commodities, foodstuffs and beverages. **Fluctuations in the exchange rate** can also affect inflation – for example depreciation in the value of the pound against the US dollar or the Euro might cause higher import prices – which has an effect throughout the supply-chain and leads to higher prices for the goods and services bought by the consumer.

Why has inflation remained low in the UK over recent years?

Since the early 1990s, Britain has enjoyed a lengthy period of low and stable inflation. No one factor explains this – but among them we can highlight the following:

1. **Low wage inflation from the labour market**: Wages have been growing at a fairly modest rate despite falling unemployment. This has been helped by a **fall in expectations of inflation** and by structural changes to the flexibility of the labour market, for example a reduction in the collective bargaining power of trade unions. The large influx of migrant workers into the UK during the last five years, and especially since the enlargement of the EU in 2004, may have also contributed to relieving labour shortages and keeping wage inflation under control.
2. **The effectiveness of monetary policy in the UK**: The Bank of England through monetary policy has kept aggregate demand growing in line with the UK's productive potential through the manipulation of interest rates. Linked with this is the effect that a credible inflation target has played in shaping people's expectations of future inflation.
3. **Increased competition**: Many markets have become more competitive (or contestable) and this has placed a discipline on businesses to control costs and reduce profit margins. Good examples include the telecommunications industry and clothing retailing. **Globalisation** is contributing to this effect as is a **tougher competition policy regime** in the UK including a more stringent approach to the investigation of price fixing cartels and other anti-competitive practices.
4. **The strength of the exchange rate**: The recent strength of the pound has lowered the cost of imported products and also squeezes demand for UK exporters. A good example is the strength of sterling against the US dollar. Because many commodities are priced in dollars, a high exchange rate reduces the UK cost of importing essential raw materials and other inputs.
5. **Information technology effects**: The expansion of information and communication technology has helped to reduce costs and prices (e.g. the impact of the internet and e-commerce).
6. **Globalisation**: Globalisation has had a huge effect on every developed country and has undoubtedly played a role in keeping inflation in check. This is discussed below. One effect has been to cause **price deflation** in many goods such as audio-visual equipment and clothing.

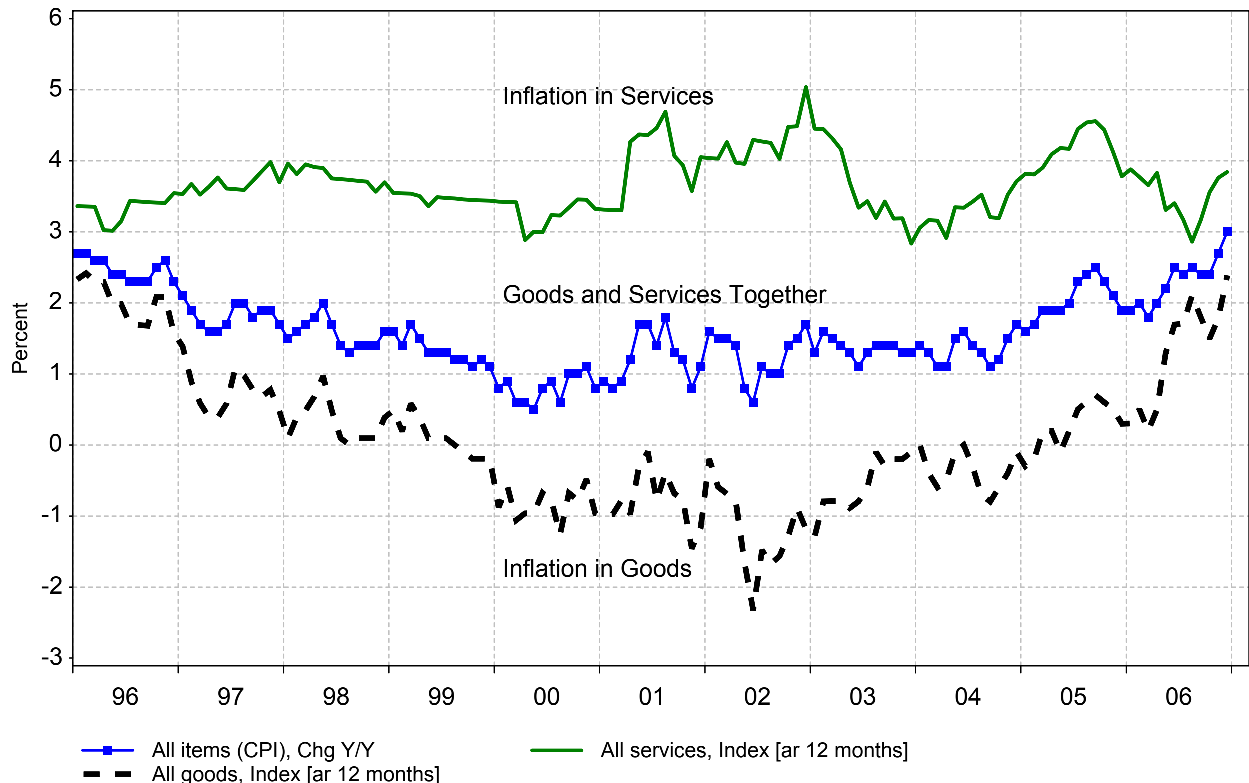
Globalisation and inflation in developed countries

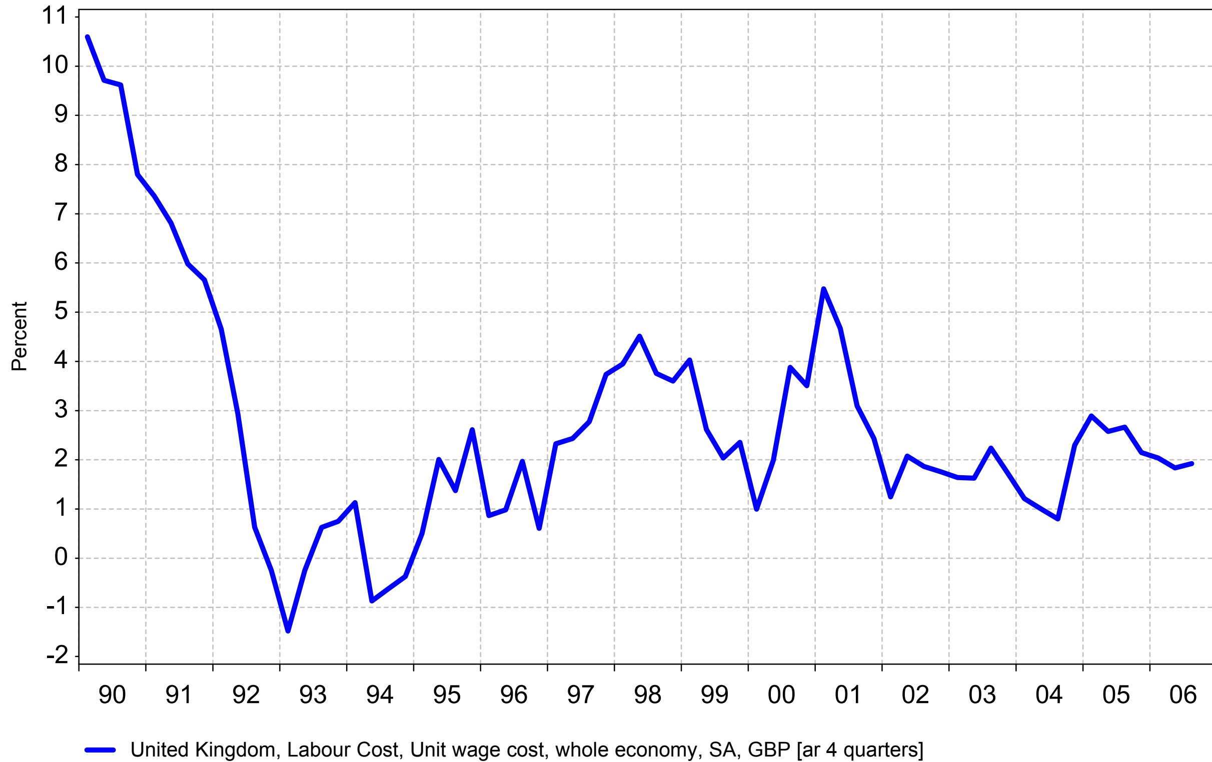
Globalisation has subdued inflationary pressures in developed countries. There are several channels through which the forces of globalisation can impact on the domestic inflation rate of a particular country

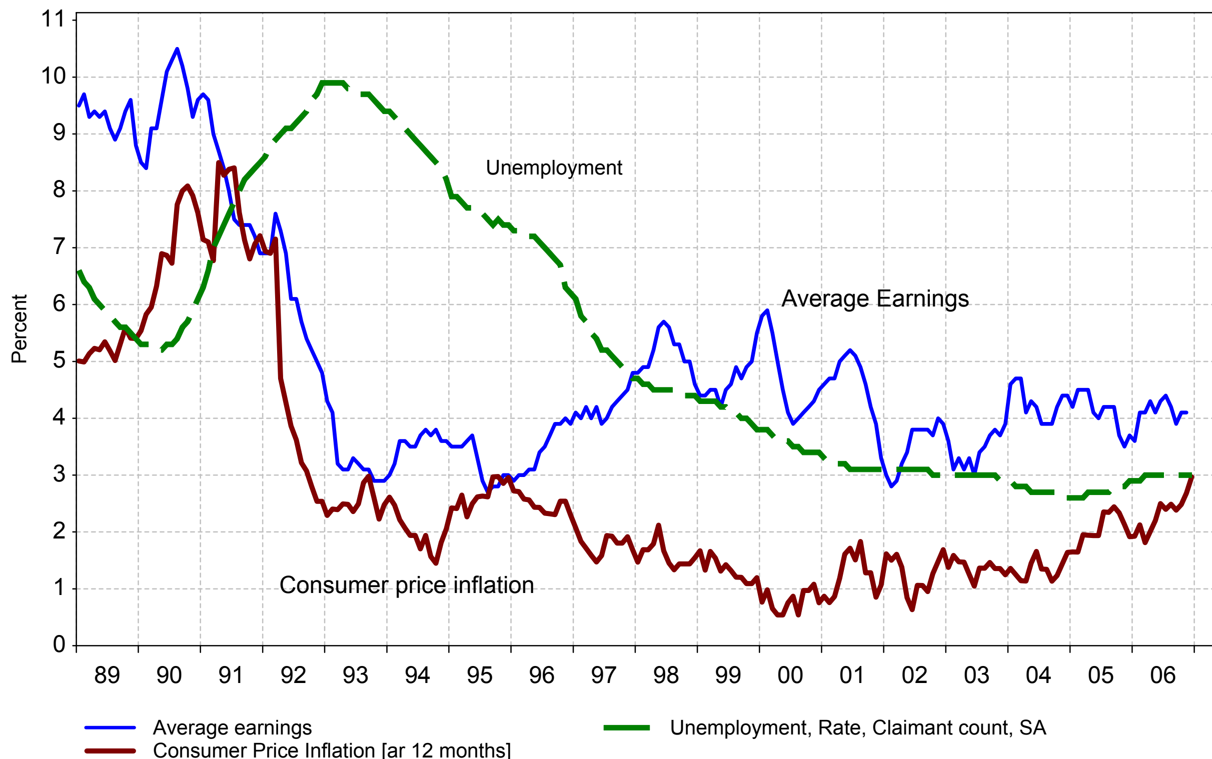
1. **Tougher competition from lower-priced imports** can place pressure on domestic producers in import-competing industries to lower the mark-ups of prices over domestic costs (i.e. operate with lower profit margins)
2. **Increasing flows of migrant workers** into richer developed nations can cause an expansion of their labour supply and help to moderate labour shortages and associated wage pressures

3. Globalisation has brought about a **rising share of imports in domestic demand** (C+I+G). And the shift of manufacturing production towards lower-cost countries is then reflected back in the inflation rates of developed nations as a growing volume of cheaper imports come in

Set against this, there is strong evidence that "globalisation-related growth in many non-OECD economies, and especially China, is putting upward pressure on the prices of many commodities" which, in turn, can lead to cost-push inflationary pressure. Thus far though, the commodity price effect arising from rapid globalisation has not been sufficient to outweigh the deflationary forces mentioned above.







The chart above follows three important data series – consumer price inflation, the rate of unemployment and the annual percentage change in average earnings. Average earnings are dependent on what is happening to basic pay rates and also the income that people can earn from overtime and other bonuses.

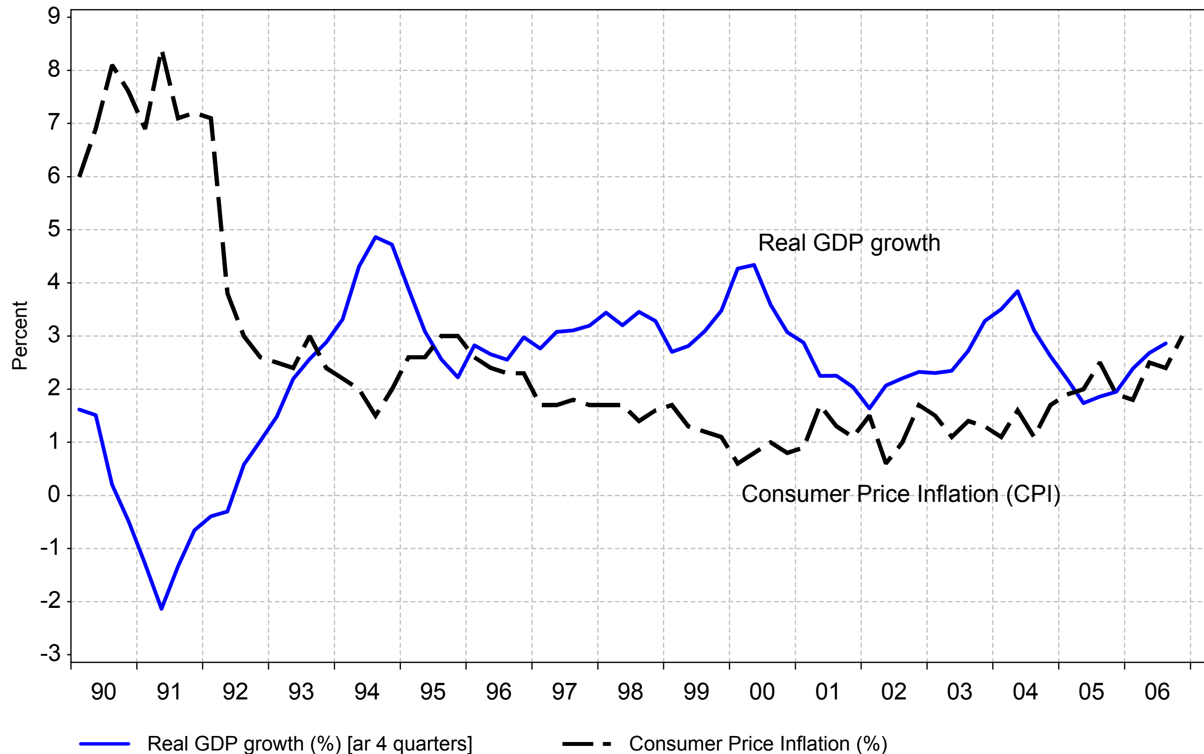
The key trend in the chart is that the rate of growth of average earnings has stayed reasonably constant over the last ten years. The growth of earnings does vary during the year and much of this can be explained by the effects of bonuses, for example the bonuses paid to workers in financial services. But, over the last decade, average earnings have been growing at a rate between 3-5% per year. This relative stability of wage growth has helped to keep consumer price inflation in check. Assume for example that workers in a business are being paid 5% extra each year and they also manage to achieve a 2% improvement in productivity. The implication is that the unit labour costs will be rising by around 3% - and unit labour costs are a key part of the operating costs for most businesses.

Reasonable stability in wage inflation has been a feature of the UK economy. And because wages have been rising faster than prices, so the real incomes of people in work have been improving. Wage inflation has also remained broadly stable despite the sustained fall in unemployment. This is indicative of an improvement in the non-accelerating inflation rate of unemployment (the NAIRU).

The changing trade off between economic growth and inflation

There is a well understood theoretical relationship between economic growth and the rate of cost and price inflation. But we often find that previously observed theoretical relationships between economic variables appear to change and this is the case with respect to the trade-off between growth and inflation in the UK. Since the mid 1990s, the sustained expansion of national output has not boiled over into rising inflation.

If we look at the data for economic growth and inflation in the UK over the last twenty years, we see that there has indeed been an improvement in the trade-off between these two objectives. In the late 1980s, a consumer boom got out of control and excess aggregate demand led to a sharp rise in cost and price inflation. The rate of consumer price inflation peaked at 7.5% in 1991 and interest rates were increased up to a peak of 15% in order to bring aggregate demand and inflationary pressure under control. The inevitable result of this was a deep recession lasting for nearly two years – the effect of which was to reduce inflation but which also caused a huge rise in unemployment.

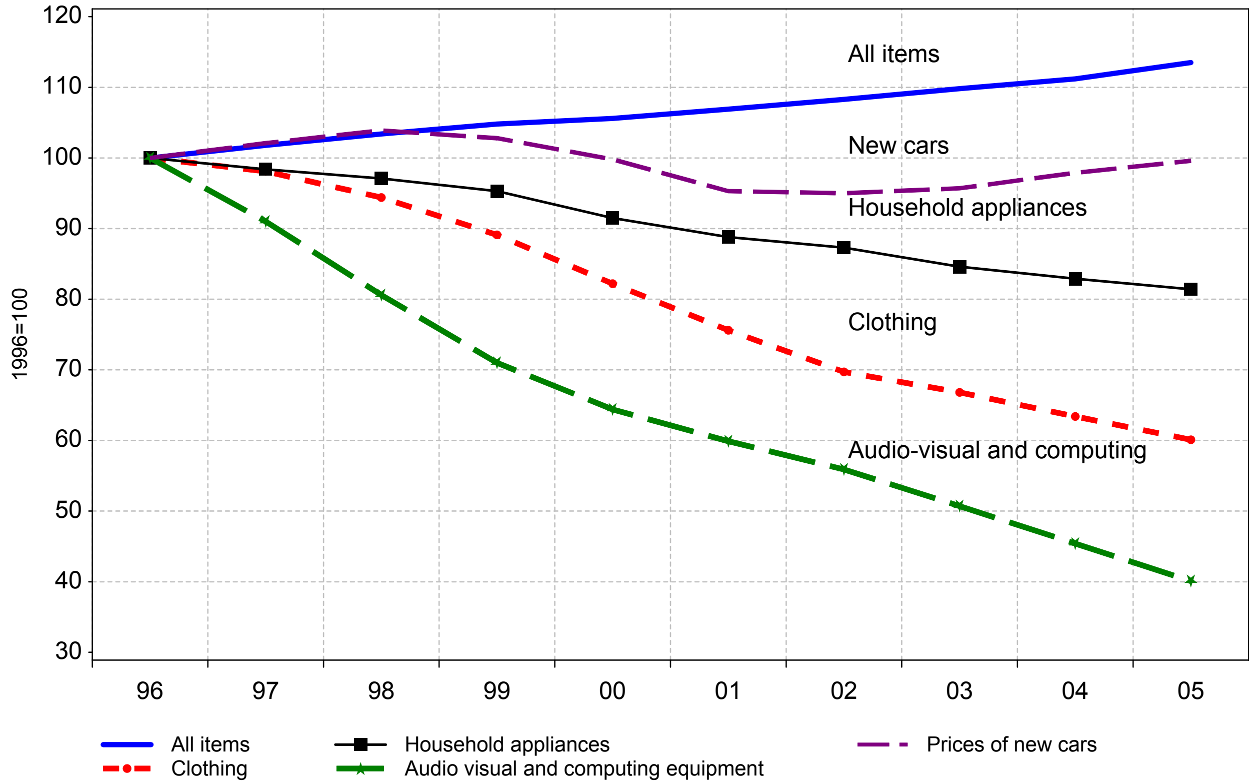


Since the early 1990s the economy has enjoyed a sustained phase of growth allied to continued low inflation. Indeed in each year from 1994-2005 the annual rate of growth of real national output exceeded the annual change in consumer prices, something that was unheard of during the whole of the 1980s! Part of the reason for this has been the management of aggregate demand using monetary policy by the Bank of England. They have kept the **output gap** to low levels whilst a combination of other favourable factors on the demand and supply side of the economy has contributed to low inflation. The Governor of the Bank of England, Mervyn King has coined the 1990s as the "nice decade"

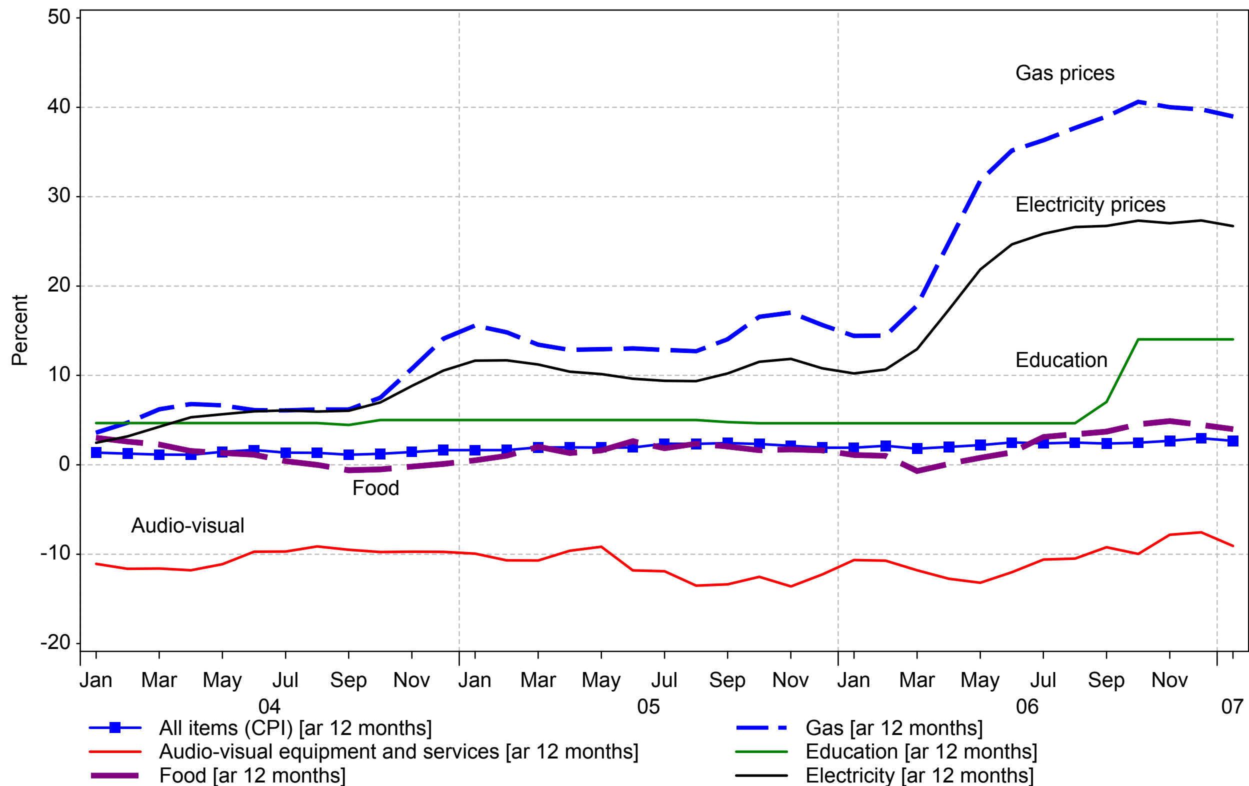
In 2005 and 2005 the annual rate of consumer price inflation started to accelerate (we consider this later on in this chapter) and in 2005, inflation edged higher to 3%.

Deflation in the prices of several products

Price deflation is when inflation becomes negative meaning that the general price level is falling. Some countries have experienced deflation in recent years – good examples include Japan during much of the 1990s and the early years of the current decade. There has been some price deflation in the UK economy – not for the whole economy – but for items such as clothing (prices have been driven lower by cheaper imports); audio-visual equipment, computers and other household goods. The effects of technological change in increasing supply are important when explaining deflation in some UK markets. The chart below provides some evidence on price deflation for selected consumer products.

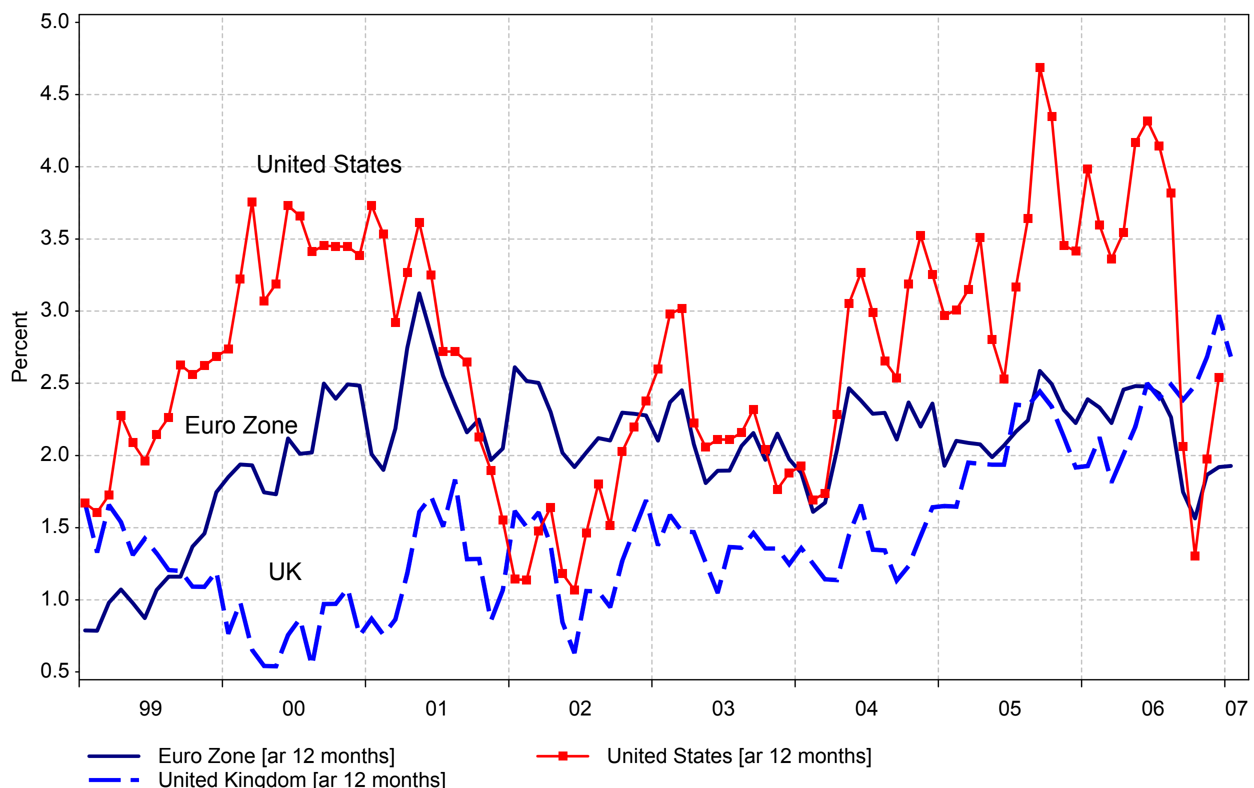


The rise in inflation during 2006



In 2006 the annual rate of inflation rose steadily to a peak of 3% in December. Naturally the media highlighted this as a possible return of inflation after more than a decade of **price stability**. In truth, the rise in consumer price inflation was inevitable after the rise in world energy prices. With oil and gas prices moving higher, the energy companies passed on their higher costs to consumers leading to a spike in inflation rates for households, especially those who spend a large percentage of their income on fuel. Our chart above tracks the annual rate of inflation for selected items from the CPI and, by the autumn of 2006, gas price inflation was running at over 40% and electricity bills were raising by nearly 30% year on year. Higher petrol prices and the introduction of tuition fees also pushed UK inflation higher towards the 3% mark. In contrast, there was still significant deflation in the prices of audio-visual products.

In January 2007, CPI inflation edged lower to 2.7%, and the expectation is that inflation will continue to drop during the rest of the year as the effects of the energy price rises last year fall out of the inflation calculation. The main worry for the Bank of England is that, if people experience much higher inflation, this may trigger a second-round “wage-price spiral”. But there are few signs of this happening at the time of writing.



The Problems involved in forecasting Inflation

Inflation in any economy can never be forecast with perfect accuracy! For a start, the published inflation measure is the result of millions of pricing decisions made by businesses large and small operating in thousands of different markets and sub-markets. The calculation of the consumer price index in the UK although extremely thorough, is always subject to error and omission.

Furthermore, the complex nature of the inflation process makes it difficult to forecast, even when inflationary conditions appear to be benign. External economic shocks can make forecasts inaccurate. For example, a jump in world oil prices or the deep falls in global share prices both have feedback effects

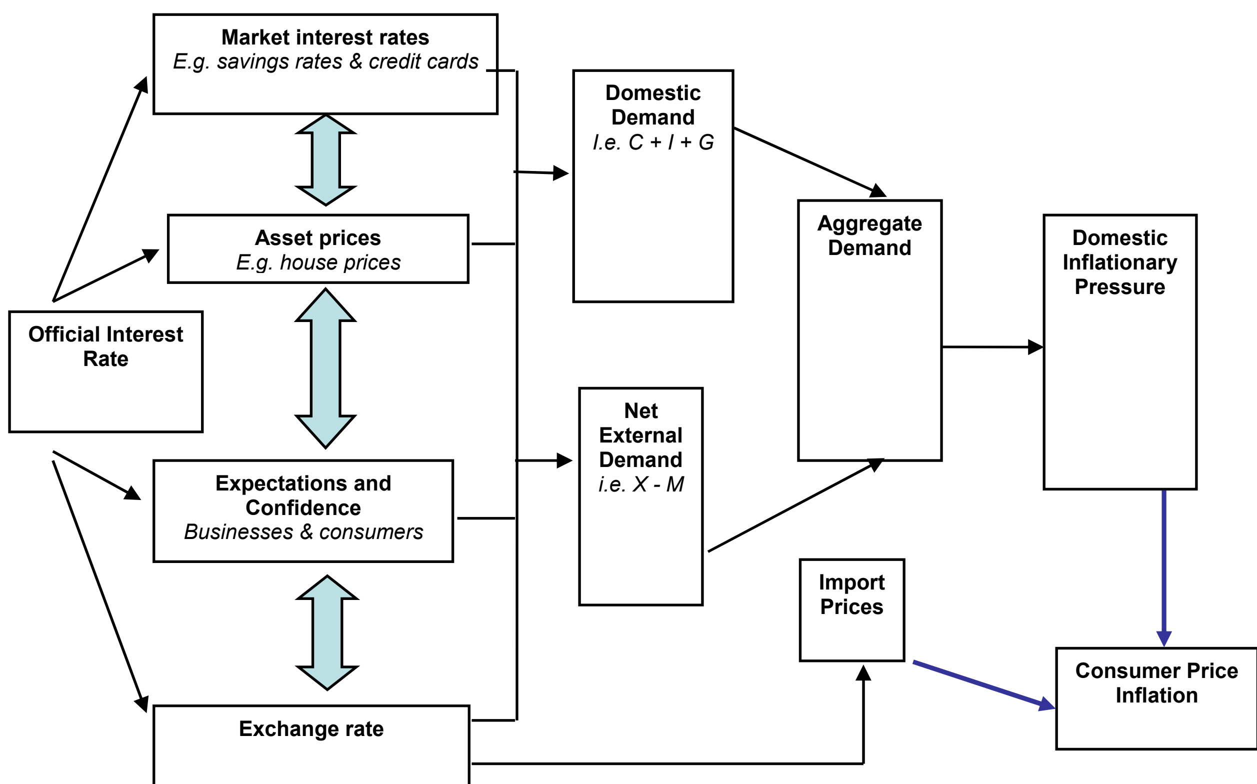
through the economic system. The exchange rate might fluctuate leading to volatility in the prices of imports.

The Bank of England in its quarterly Inflation Report does not even attempt to forecast a precise rate of inflation over its two year forecasting horizon. Instead it produces a colourful 'fan-chart' which encompasses its central forecast for inflation based on the probabilities of inflation falling within certain ranges over the next twenty-four months. The central projection is always that the inflation target will be met. But it could not be otherwise, for if the Bank was to say that its current interest rates were not appropriate to meeting the inflation target going forward, and then a change in policy would be required!

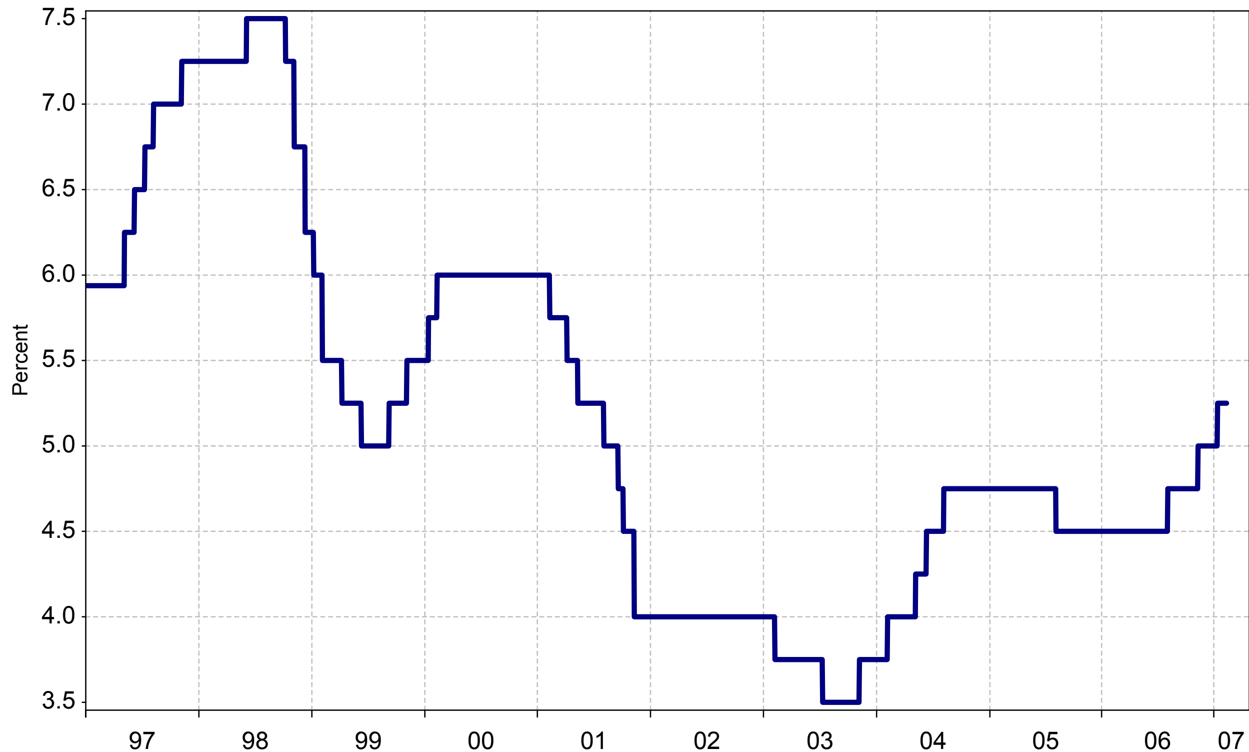
Monetary Policy

Monetary policy involves changes in the **base rate of interest** to influence the growth of aggregate demand, the money supply and price inflation. Monetary policy works by changing the rate of growth of demand for money and changes in short term interest rates affect the spending and savings behaviour of households and businesses, feeding through to the circular flow of income and spending.

Mapping out the Transmission Mechanism – the effects of changes in interest rates in the UK economy



The **transmission mechanism** of monetary policy works with **variable time lags** depending on the **interest elasticity of demand** for different goods and services. Because of the time lags involved in setting an appropriate level of short-term interest rates, the Bank of England sets rates on the basis of hitting the inflation target over a **two year forecasting horizon**.



The main objectives of monetary policy in the UK are as follows:

1. **Price stability**: Consumer price inflation of 2%. The inflation target is confirmed or changed annually at the time of the Budget. It is a point target (i.e. 2%), and symmetric, so that equal weight is placed on deviations in the inflation rate in either direction. The Bank of England is as concerned about the risk of price deflation as it is about a surge in inflation above target.
2. **Accountability:** If inflation deviates from target by more than 1 percentage point away in either direction, the Governor must write to the Government setting out the MPC's strategy for returning to target.
3. **Sustained economic growth**: Monetary policy decisions should be consistent with the government's objectives for sustained growth of real national output.
4. **No target for the exchange rate**: Monetary policy operates with a freely floating exchange rate, the foreign exchange markets determine the external value of sterling and the Bank of England has not actively intervened in the currency markets since it was granted independence.

The Bank of England has been independent of the Government since **May 1997**. In that time there has been several **cycles of changes in interest rates**. They have varied from 3.75% (in the late autumn of 2003) to 7.5% in the autumn of 1997. Generally though, the UK economy has experienced a period of relatively low and stable interest rates over recent years. The Bank of England has opted to change interest rates in a series of small steps – this is known as "**monetary policy fine-tuning**".

Since May 1997 there have been over thirty changes in official base rates and only three of them have been of 0.5%. The BoE prefers to move interest rates in a series of small steps e.g. 0.25% at a time. Bank prefers a forward-looking approach when setting rates – believing that changing interest rates ahead of future movements in interest rates will mean that they have to move less in total than if the Bank is "reactive" to changing economic circumstances.

Setting interest rates – the policy dilemma

The Bank of England faces a "**policy dilemma**" when setting the right level of interest rates. Keeping rates too low risks an unsustainable increase in consumer borrowing, house prices and debt which could have damaging consequences for the economy in the medium term (e.g. possible demand-pull inflation and an ever growing trade deficit together). But higher interest rates might choke off demand and output in the manufacturing sector and in export industries where demand and output has been weak in recent years. Rises in UK interest rates might cause an appreciation in the value of sterling which will damage the price competitiveness of the export sector. When deciding on the right level of interest rates, the MPC must consider a range of economic data – much of which paints a mixed picture. They take into account factors such as

- **Developments in the labour market**: Including changes in unemployment, employment, skills shortages and the rate of wage inflation.
- **Developments in the currency market**: Fluctuations in the value of the pound in the currency markets have an effect on aggregate demand and also the costs and prices of the goods and services that we import.
- **Developments in the global economy**: Not least the strength or weakness of demand and output in our leading trade partners such as the Euro Zone and the United States.
- **Developments in the money markets**: Including changes in the demand for credit, house prices and household savings behaviour.

One important point to bear in mind with monetary policy is that the official short term rate of interest is under the control of the Bank of England, but most other macroeconomic variables are not! The MPC's decisions can <u>influence</u> consumer and business behaviour but it cannot determine directly the rate of inflation.

The Role of Monetary Policy in stabilising demand and output

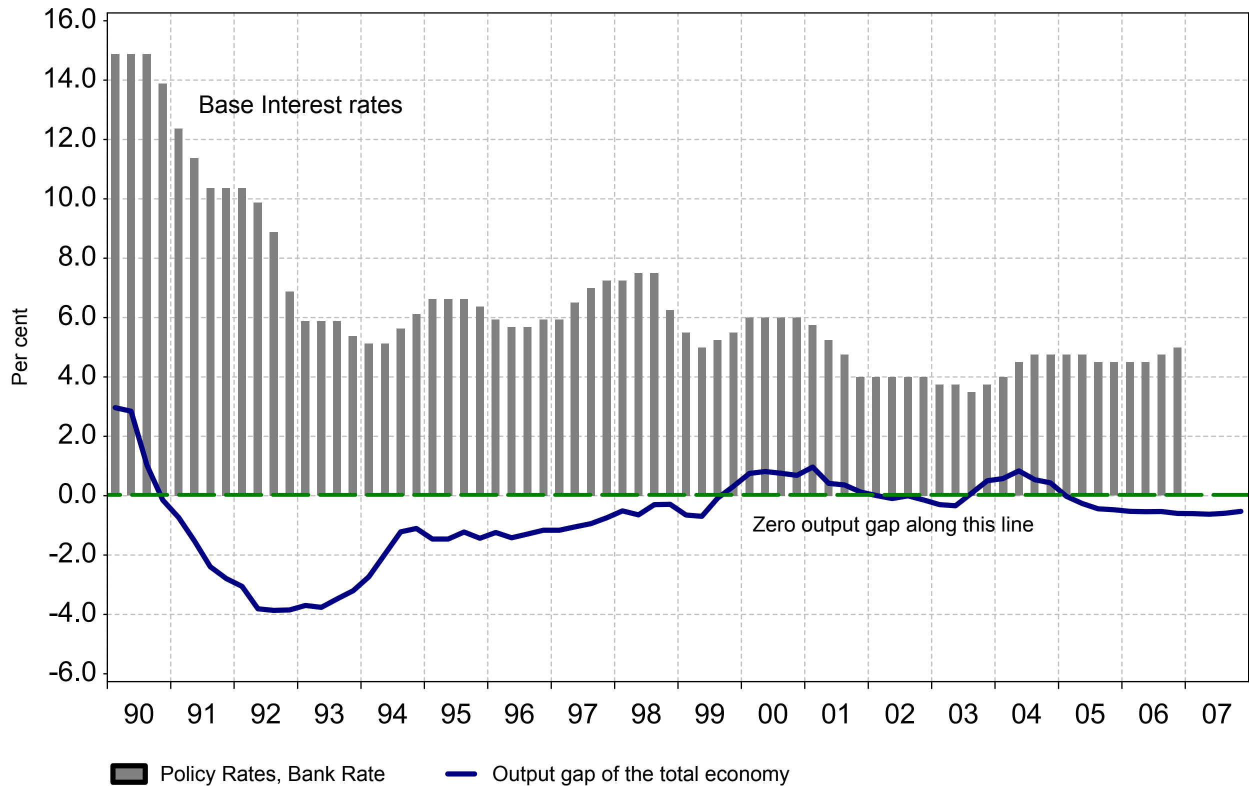
Macroeconomic policies that seek to raise the level of demand and output in the domestic economy are called **"accommodatory policies"**. In other words, they boost demand beyond what would normally happen through the working of the **automatic stabilisers**. This idea of an accommodatory monetary policy has become important in recent years as the Bank of England has tried to keep the UK economy growing at a time of economic weakness in some of our key export markets. One concept that is worth considering here is that of the **neutral rate of** interest.

The neutral rate of interest

The idea behind this is that there might be a rate of interest that neither deliberately seeks to stimulate aggregate demand and growth, nor deliberately seeks to weaken growth from its current level. In other words, a neutral rate of interest would be that which is set at a level which encourages a rate of growth of demand close to the estimated trend rate of growth of real GDP. There can be no such thing as an exact measure of the neutral rate, and it will certainly differ from country to country.

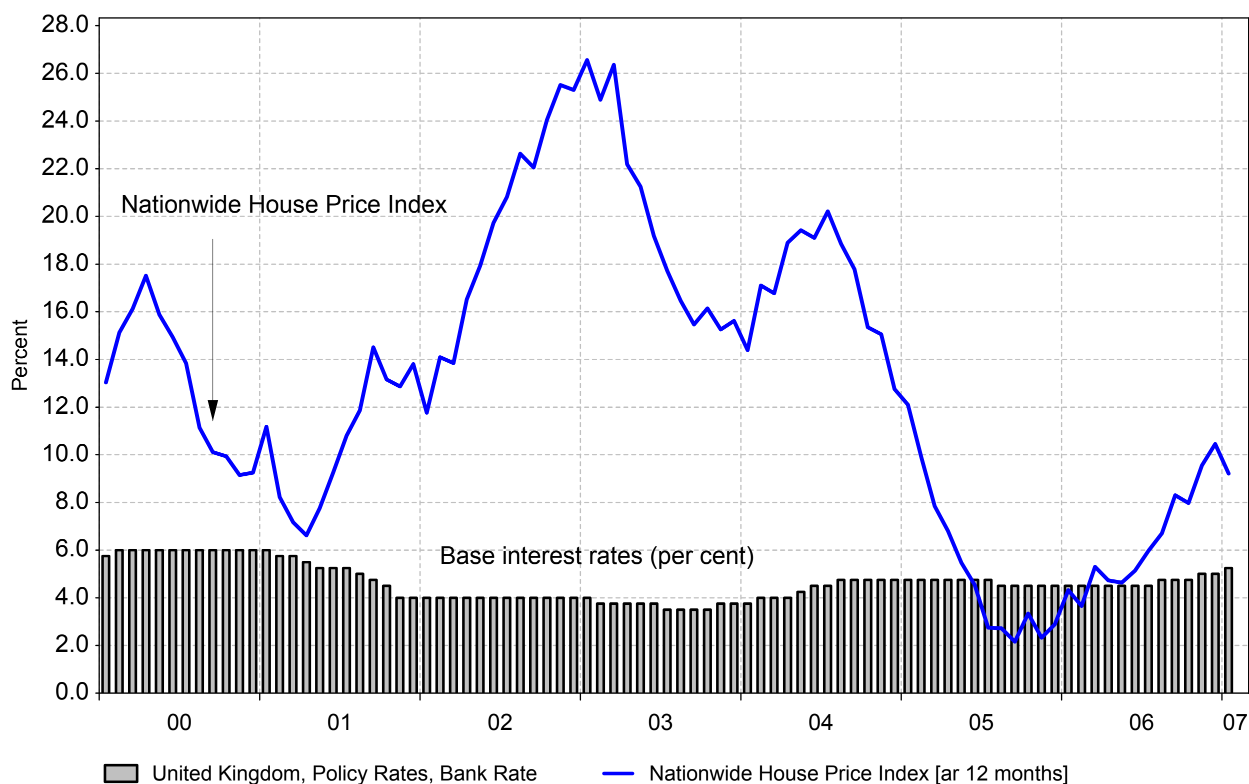
In Britain, for most of the current decade, interest rates set by the Bank of England have almost certainly been below the estimated neutral rate. In this sense, monetary policy has played an important role in maintaining the growth of real output which now stretches to fifteen years! A recent survey of city economists (admittedly a small but pretty high-powered sample!) puts the neutral rate of interest in the UK

at between 4.5 – 5.5%. At the time of writing UK official short-term interest rates are at 5.25%. This suggests that monetary policy in the UK is now broadly neutral in terms of its effect on the rate of growth of demand.



Monetary Policy and the Housing Market

The Bank of England does not have a specific target for house prices and nor can the decisions of the Monetary Policy Committee have any direct effect on the prices of different properties. Instead the Bank looks closely at what is happening to house prices as part of its overall assessment of economic conditions. It believes that too rapid a rise in property prices can lead to distortions in the economy - for example an excessive surge in consumer borrowing. Equally a recession in the housing market could threaten a wider deflationary downturn. So it seeks to set interest rates at a level where the rate of house price inflation is more moderate - a cooling down of the market rather than allowing it to tip into a slump.



Evaluation of the MPC's record since 1997

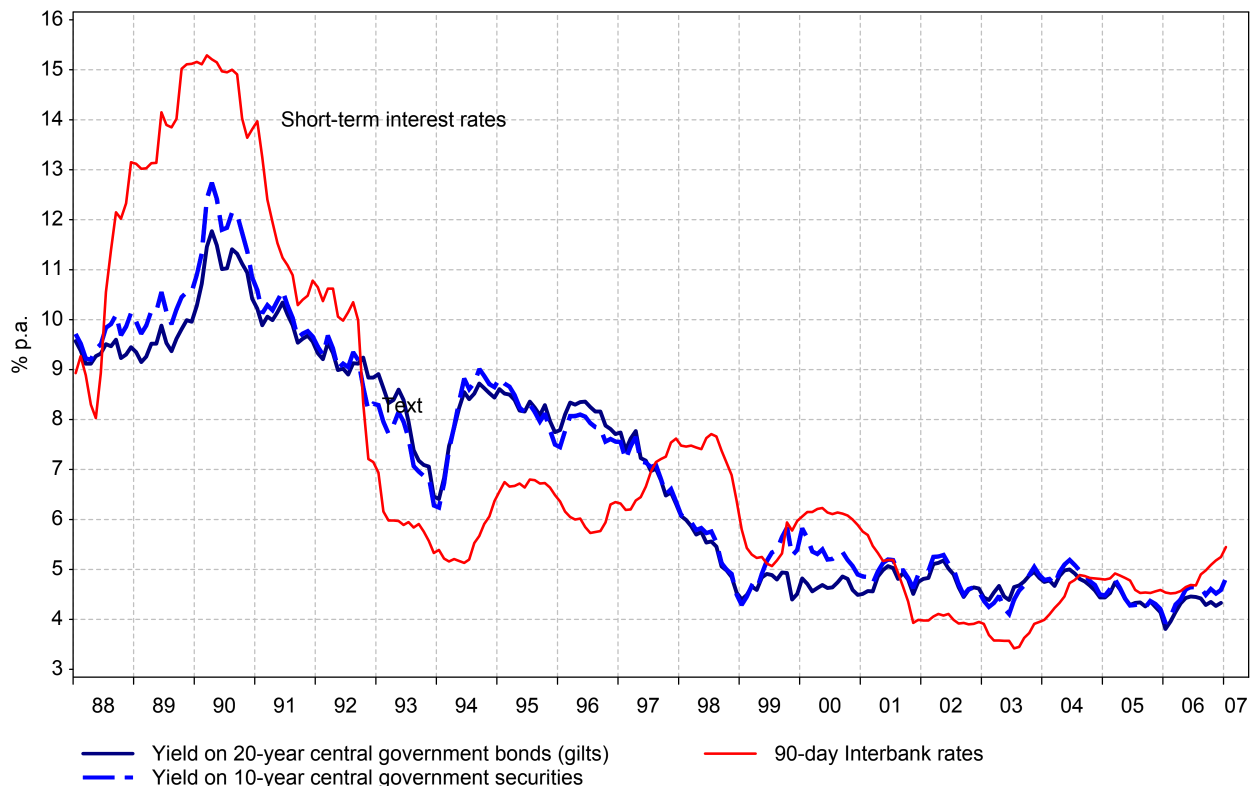
Most commentators believe that the decision to grant independence to the Bank of England in May 1997 marked an important step forward in the architecture of policymaking in the British economy. All of the major political parties are committed to maintaining this independence. The next step might be to give the Bank of England full independence by allowing it to set its own inflation target.

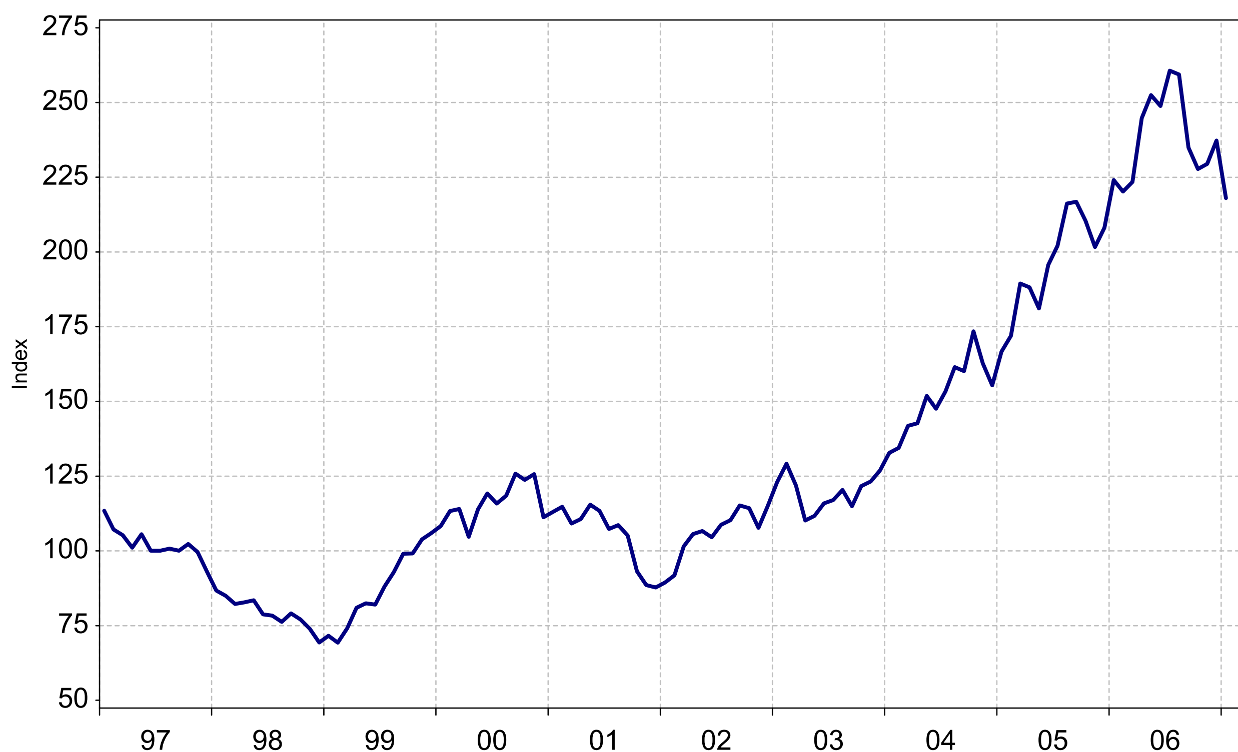
Financial markets (including bond markets, currency markets and stock markets) have come to accept that low inflation is here to stay – the market believes that long term base interest rates will be between 4 – 6% for most of any one economic cycle.

Looking back over the ten year tenure of the Monetary Policy Committee we can see that:

- **Within target:** CPI inflation has stayed within target range.
- **Credibility:** UK monetary policy has a high level of credibility both within the international financial markets and also among individuals and businesses.
- **Lower expectations of inflation:** Partly because of this credibility, there has been a fall in inflation expectations and also a fall in long term interest rates (for example the 10 and 20 year yields on government bonds). This has led to lower costs of raising finance for corporations issuing bonds and it has also cut the costs to the Government of financing its budget deficit. Mortgage interest rates (another long-term interest rate) have also come down – fuelling the housing boom.
- **Adjusting to cheaper borrowing costs:** We have seen low and relatively stable interest rates since the early 1990s – a contrast to the high and volatile interest rates seen in the 1970s and 1980s. It has taken consumers and businesses time to adjust to this step-change in interest rate levels – one of the consequences has been a huge surge in consumer borrowing and a rising level of personal sector debt.

- **Contribution to macroeconomic stability:** In general, monetary policy has contributed to a decade of economic stability. The Monetary Policy Committee has been proactive in cutting interest rates when there was a fear of recession and deflation. And it has tightened policy at several stages in order to "engineer" a slowdown in consumer demand and the housing market. The latest rise in interest rates came in January 2007 when the Bank "surprised" the markets with a hike from 5% to 5.25%.
- **Staying out of the Euro:** The UK is now very unlikely to consider joining the single currency (Euro) in the foreseeable future. The economy has outperformed the Euro Zone in recent years – there is little or no pressure to join on purely macroeconomic grounds.
- **Good luck and good judgement:** Although a sizeable amount of credit should go to the work of the MPC, the wider economic backdrop has been favourable to maintaining low inflation, in other words, the Bank of England has enjoyed a decent slice of good luck to complement its own judgements:
    - Globalization effects – e.g. cheaper manufactured goods from China and other south East Asian countries
    - Advances in production technology and falling communication costs
    - Fall in demands for higher wages among those people in work
    - Rising labour productivity
    - Increasing competition in product markets
    - The strong exchange rate





Summary

- Britain is no longer a high inflation country. Demand and supply side reasons help to explain the absence of inflation in the economy since the last recession ended in 1992.
- There has been low stable inflation in the UK since the early 1990s – this low inflation pre-dates independence for the BoE.
- Independence for the Bank of England has been a success and represents one of the most important policy decisions by the current Labour government.
- Expectations of inflation have fallen – e.g. wages growing by around 4% per year (the 1980s average was 8%) – this has led to an inward shift of the "expectations-augmented" Phillips Curve (leading to an improved trade off between unemployment and inflation)
- Although inflation appears to have been tamed, there are some inflation risks for the UK, not least the prospect of further sharp rises in world commodity prices.
- There have been some inflation "shocks" e.g. rising oil prices and the housing boom – but no spill-over yet into any sharp rise in consumer price inflation and wage demands.
- For most of the current decade monetary policy in the UK has been "accommodatory" meaning that interest rates have been used deliberately to stimulate demand at a time of domestic and international weakness.