The Monetary Policy Committee of the Bank of England: ten years on

The Bank of England's submission to the Treasury Committee inquiry regarding the economic context.[1]

Compared to past performance, UK inflation has been low and unusually stable since the inception of inflation targeting, while GDP growth too has been remarkably stable. In part that reflects the effectiveness of the inflation-targeting framework and the current institutional arrangements, particularly by anchoring inflation expectations and reducing the sensitivity of inflation to demand and cost shocks.

But other factors have also provided a benign context for the MPC's efforts: cheaper imports and increased competitive pressures associated with globalisation; and increases in labour supply, associated in part with inward migration. Both have dampened inflationary pressures and reinforced the changes in the inflation process associated with the change in monetary regime. The environment is unlikely to be so benign in the future.

The submission also covers the impact on monetary policy of a number of particular issues that have been relevant to the MPC's deliberations over the past decade: the balance of demand and the exchange rate; money supply and liquidity; asset prices; household debt; and investment.

Introduction

This submission covers the economic backdrop to the first ten years of the Monetary Policy Committee (MPC). In the two decades prior to 1992, the United Kingdom's economic performance was relatively poor, being characterised by volatile growth (**Chart 1**) and episodes of high inflation (**Chart 2**). During this period there were also numerous changes in the macroeconomic policy framework and strategy. In the immediate aftermath of the breakdown of Bretton Woods, inflation control was assigned to incomes policies while fiscal policy was assigned the task of managing demand. That was superseded in 1979 by the adoption of monetary targets as a means to control inflation, coupled with structural reforms to boost growth. In the mid-1980s, an informal exchange rate target replaced the money supply as the lodestar for monetary policy. And from 1990 to 1992, the informal exchange rate target was replaced by a formal one in the shape of ERM membership. The current inflation-targeting framework was born in the aftermath of sterling's exit from the ERM in September 1992.

Economic performance since 1992 stands in marked contrast with the earlier experience. Inflation has been low, close to target and unusually stable.[2] The target was initially defined in terms of RPIX inflation: a range of 1%–4% until May 1997[3] and a point target of 2.5% thereafter. The target was then switched at the end of 2003 to 2% for CPI inflation (which on average has run about $^{3}/_{4}$ percentage point below RPIX inflation). RPIX inflation has averaged 2.6% under the inflation-targeting regime, while CPI inflation has averaged 1.8%. The corresponding figures for the period since the MPC was created in June 1997 are 2.4% for RPIX and 1.4% for CPI. Moreover, inflation has so far not deviated by more than 1 percentage point from the target — the point at which an Open Letter would be triggered — though it has come close on a couple of occasions, most recently in December 2006. That is a much better performance than was expected when the present arrangements were established: calculations at the time suggested that inflation was likely to be more than 1 percentage point away from the target around 40% of the

(1) This memorandum was submitted as evidence to the House of Commons Treasury Committee's inquiry into 'The Monetary Policy Committee of the Bank of England: ten years on' and was first published by the Treasury Committee on 19 February 2007 in *House of Commons Paper No. 299* of Session 2006–07, Ev 1–15. Further information about the Treasury Committee's inquiry can be found on the Committee's website: www.parliament.uk/treascom.

(2) Indeed using data back to 1661, Benati (2006) concludes that the inflation-targeting regime constitutes the most stable macroeconomic environment in recorded UK history.
(3) With the objective that RPIX inflation should be in the lower half of the range by the end of the Parliament.

Chart 1 GDP growth

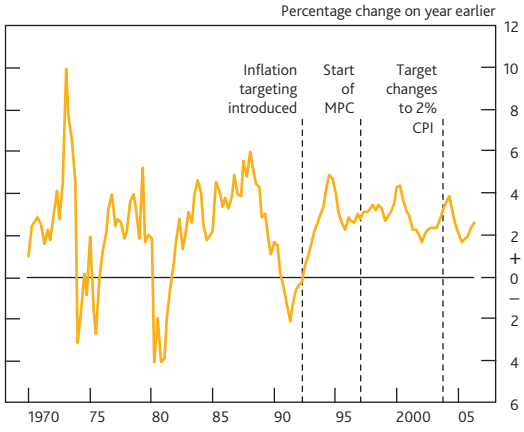
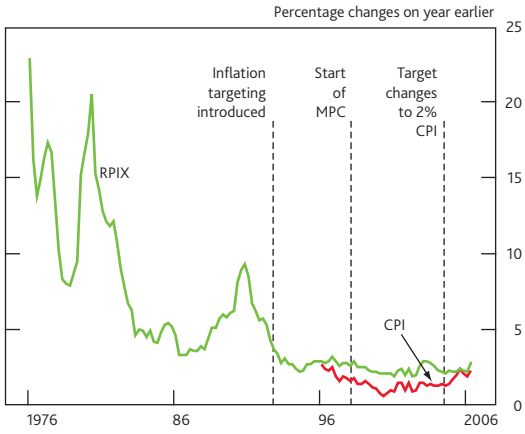


Chart 2 Inflation

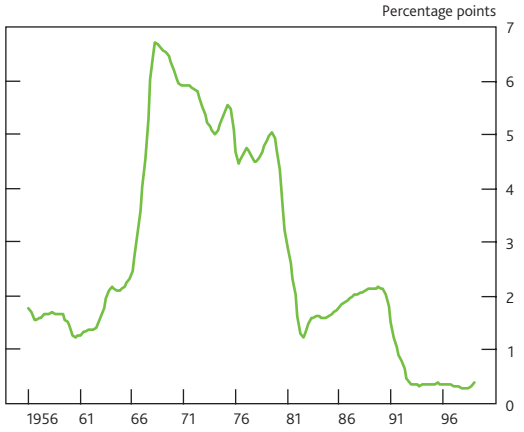


time.[1] And the Bank's own fan charts for the inflation projection have often shown a significant risk that inflation would differ from the target by more than 1 percentage point. This unexpected decline in inflation volatility is documented in **Chart 3**.

The average annual growth rate of GDP since 1992 Q2 has been 2.8%, slightly more than the post-World War II average of 2.5%. And growth is estimated to have been unusually steady, with 58 quarters of unbroken expansion, the longest such run on record. No other G7 country has experienced such a sequence. The decline in the volatility of output is documented in **Chart 4**. Finally, the unemployment rate according to the Labour Force Survey measure, dropped from a peak of a little over 10% in 1993 to under 5% in 2005, its lowest level for almost three decades.

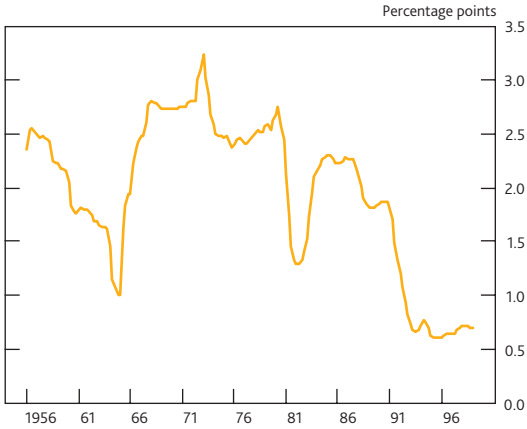
The macroeconomic policy framework has remained broadly stable over this time, with monetary policy set to achieve an inflation target, together with rules for fiscal policy ensuring that fiscal plans are sustainable and continuing structural reforms to raise the economy's supply potential. But the delegation of interest rate decisions to an independent MPC in 1997 represents an important modification.

Chart 3 Volatility of UK inflation[a]



(a) Rolling eight-year standard deviations of four-quarter RPIX (RPI before 1976) inflation. Standard deviations are leading, ie 1997 Q1 observation shows standard deviation from 1997 onwards (for eight years).

Chart 4 Volatility of UK GDP growth[a]



(a) Rolling eight-year standard deviations of four-quarter GDP growth. Standard deviations are leading, ie 1997 Q1 observation shows standard deviation from 1997 onwards (for eight years).

The thinking that underlies this policy framework represents a confluence of advances in our understanding of how the economy functions, together with the lessons of experience. The essential underpinnings can be summarised as follows. In the short run, changes in the nominal demand for goods and services in the economy tend to be reflected in corresponding fluctuations in output. By affecting nominal and real interest rates, and thence a whole array of asset prices, including the exchange rate, monetary policy can therefore alter the level of nominal demand and with it the level of output and employment.

In the long run, however, the level of output and employment depends on the supply potential of the economy, which is determined by the available quantity of real resources — labour, capital, land and other natural resources and the efficiency with which they are combined. If the level of output is running above (below) the level of potential supply, the

(1) See Bean (1998).

result will be upward (downward) pressure on inflation, which will tend to bring demand back into line with supply. In the long run, therefore, monetary policy can determine only the inflation rate, not the level of activity or the growth rate (though consistently poor monetary policy that leads to high and unstable inflation could discourage investment and actively depress growth). But because it can have a temporary impact on activity, the conduct of monetary policy can affect the variability of growth. That is why the statutory monetary policy objective enshrined in the Bank of England Act (1998) elevates the achievement of price stability ahead of any objective for growth and employment, but also why the Chancellor's *Remit* letter gives the MPC a degree of 'constrained discretion' in deciding how quickly to correct any deviation from target, so as to avoid creating excessive volatility in output.

The macroeconomic performance over the past fifteen years represents a striking improvement on the previous 20 years — so much so that some observers have referred to it as the 'Great Stability'. But it would be unwise to conclude that this stability is entirely a consequence of the new monetary framework. Other countries have also experienced a similar, if not so pronounced, improvement in performance (**Table A**). And there have been developments in the global economy that have independently made the achievement of low and stable inflation easier than it might otherwise have been. Even so, those changes have also created new challenges for monetary policy makers here and abroad. The remainder of this submission expands on these and related themes.

Table A Output growth and inflation in selected countries

Output growth[a]

	Average growth rate				Standard deviation of growth rate			
	1950–69	1970–92	1993–97	1998–2005	1950–69	1970–92	1993–97	1998–2005
United Kingdom	2.8[b]	2.0	3.1	2.8	2.1[b]	2.5	0.8	0.7
United States	4.3	3.0	3.5	3.0	3.1	2.6	0.9	1.4
Japan	10.4[c]	4.6	1.7	0.8	2.3[c]	2.5	1.3	1.7
Germany[d]	4.4[e]	2.7	1.3	1.3	2.8[e]	2.2	1.3	1.3
France	n.a.	2.2[f]	1.1	2.2	n.a.	1.1[f]	1.2	1.2

Inflation[g]

	Average inflation rate				Standard deviation of inflation rate			
	1950–69	1970–92	1993–97	1998–2005	1950–69	1970–92	1993–97	1998–2005
United Kingdom	3.9	9.6	2.7	2.5	2.4	5.6	0.7	0.8
United States	2.2	6.0	2.7	2.5	2.0	3.2	0.4	0.9
Japan	4.0	5.4	0.7	-0.3	4.5	5.1	0.8	0.6
Germany	2.2	3.8	2.4	1.4	2.9	2.1	1.1	0.6
France	n.a.	7.7[h]	1.7	1.5	n.a.	4.1[h]	0.4	0.6

Sources: Bureau of Economic Analysis, Global Financial Data, IMF, ONS, Thomson Financial Datastream and Bank calculations.

(a) Four-quarter GDP growth.
(b) 1955–69.
(c) 1958–69.
(d) West Germany prior to 1991.
(e) 1961–69.
(f) 1979–92.
(g) Four-quarter inflation rates based on the retail prices index for the United Kingdom, and consumer price indices for other countries.
(h) 1973–92.

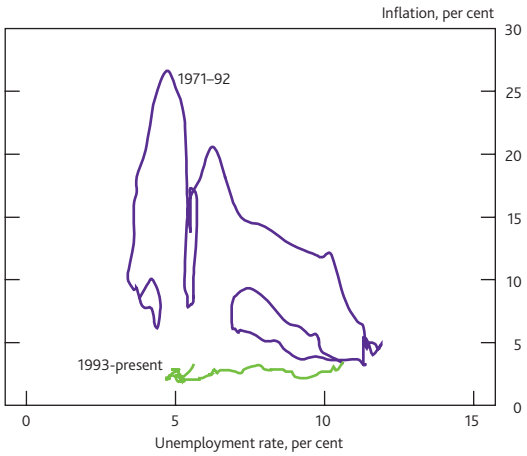
The contribution of the monetary policy framework to the 'Great Stability'

The inflation target and inflation expectations

A key factor in the improved macroeconomic performance is a better understanding of how the economy functions and what role monetary policy can and should play. Through the late 1970s and early 1980s, academics and policymakers alike became increasingly aware that any trade-off between inflation and activity was likely to be temporary and that sustained inflation was ultimately a monetary phenomenon. In addition, the importance of anchoring inflation expectations became clearer. Many wages and prices are changed only periodically. Since workers care about the purchasing power of their wages, while businesses will be concerned about both their costs and competitors' prices, the wages and prices that are set today are influenced by expectations of future levels of prices, wages and other costs. Inflation expectations are therefore central in determining inflation today. Indeed, the most potent effect of monetary policy is not so much through the consequences of individual monthly interest rate decisions, but rather through the ability of the policy framework to condition those expectations.[1]

In a world where inflation expectations are well anchored, an increase in nominal demand relative to supply will lead to a smaller and less persistent increase in inflation than in a world where the increase in nominal demand simultaneously raises expectations of future inflation. The effective anchoring of inflation expectations represents one possible explanation for the apparent flattening of the short-run trade-off between inflation and activity that is suggested by **Chart 5**. (In this

Chart 5 Inflation and unemployment[a]



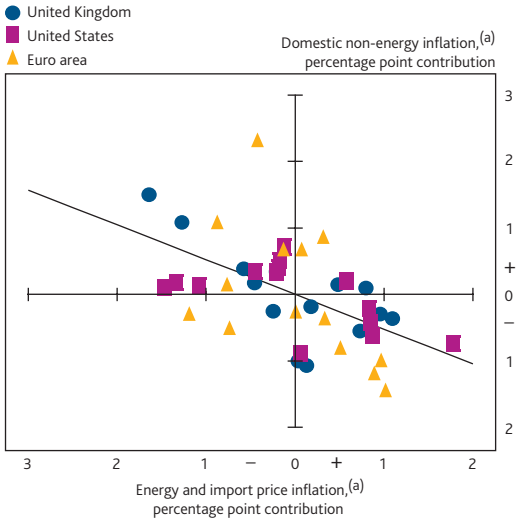
(a) LFS unemployment rate and four-quarter RPIX (RPI before 1976) inflation.

(1) See eg Woodford (2003).

chart, the activity variable is represented by unemployment. The post-1992 experience would therefore be consistent with an unchanged short-run trade-off if actual unemployment had at all times stayed close to the natural rate of unemployment. But it is implausible that activity has been controlled that precisely.)

Moreover, the response to cost shocks — such as the recent increase in the price of oil — is also likely to be attenuated when expectations are well anchored. For a given level of total nominal demand, an increase in the price of some goods will reduce the income left to spend on other goods, so putting downward pressure on those prices. Furthermore, raising prices becomes a less attractive way for companies to respond to higher input costs than seeking ways to reduce other costs. In the 1970s, shocks to energy or import prices generated positive 'second-round' effects on wages and the prices of other goods and services. But **Chart 6** suggests that in recent years, with monetary frameworks in the United Kingdom and elsewhere oriented to maintaining overall price stability, there has instead been an inverse relationship between domestic non-energy inflation and energy and import inflation. So cost shocks need not generate second-round effects in the way that they did in the 1970s.

Chart 6 Contributions to CPI inflation



Sources: Thomson Financial Datastream and Bank calculations.

(a) Percentage point contributions to annual CPI inflation, deviations from 1993–2006 means.

Central bankers around the world now recognise the importance of anchoring inflation expectations. This has led to more emphasis on explaining how policy decisions relate to the objective of price stability, and greater transparency. However, a particular virtue of an inflation target, as opposed to say a money supply target, is that it focuses on the final objective of policy rather than an intermediate objective whose relation to inflation might not be so immediately obvious to the general public. Having an explicit and credible inflation target is likely to have directly contributed to anchoring expectations. But there remain important unanswered questions about how expectations are formed and how credibility is gained and lost. Since independence, the Bank has therefore put considerable effort into improving its understanding in this area and has commissioned its own regular survey in order to track the expectations of the general public.

A related aspect is that a credible framework, together with a well-understood reaction function on the part of the central bank, means that market interest rates and asset prices tend to act as a stabilising force. For instance, if market participants see that demand is running ahead of supply, they will expect the MPC to raise Bank Rate in order to counter the incipient inflationary pressure. That in turn will push up market interest rates and tend to lead the pound to appreciate, dampening demand ahead of any action by the MPC. In this way the market does much of the MPC's work for it; the Governor has termed this the 'Maradona theory of interest rates'.(1)

The role played by the institutional arrangements

Without appropriate institutional arrangements to support the new monetary regime and anchor expectations, it is unlikely that such a good performance could have been sustained. The current framework — based on an explicit target for inflation, a high degree of transparency, and Bank of England independence — made it clear that monetary policy is directed towards maintaining low and stable inflation and that this objective is in place for the long term. The experience of low and relatively stable inflation has helped to reinforce the credibility of the framework and stabilise inflation expectations around the target level. There are a number of features of the current framework that are worth highlighting.

First, delegating responsibility for setting interest rates to an independent Committee has reduced the scope for short-term political considerations to enter into the determination of interest rates. And appointing people with an appropriate level of economic expertise has facilitated the process of forming a view about inflation prospects from the myriad of data and other evidence that the MPC processes each month.

Second, by holding members of the Committee publicly accountable for their votes, the arrangements have sharpened the incentives for members, individually and collectively, to strive to hit the inflation target.

Third, having a regular cycle of pre-announced meetings to determine interest rates has been important in encouraging early action to counter inflationary pressures. This, of course, was a feature of the 1992 reforms; prior to then decisions to change interest rates tended to be reactive rather than proactive.

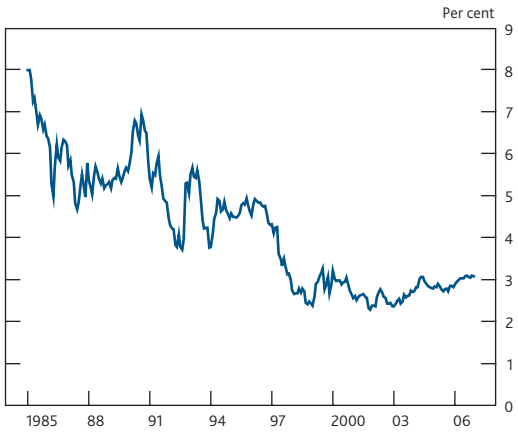
(1) See King (2005a).

Fourth, public understanding of the MPC's thinking is fostered by regular and open communications, including the MPC minutes, the *Inflation Report* and speeches by MPC members. While most of these features were also present under the 1992–97 regime, they have continued to evolve since independence.

Last but not least, the announcement of a clear and credible inflation target reaffirmed annually by the Chancellor has been central. A valuable feature of the arrangements in place since 1997 has been the choice of a symmetrical, point target. Prior to that the target was in the form of a range, but a point target is simple and clear to understand and may have been more effective in anchoring inflation expectations than a range.

All of these features have helped to anchor inflation expectations. As can be seen from **Chart 7**, during the 1992–97 period a measure of long-term (RPI) inflation expectations in financial markets, derived from nominal and indexed gilts, remained around the upper end of the target range. The delegation of the operational responsibility for setting interest rates to the MPC in 1997 was then associated with an immediate credibility gain, with long-term inflation expectations falling sharply to around the new point target. That could have reflected either the virtues of setting a more precise target or the consequence of insulating monetary policy decisions from short-term political pressures.

Chart 7 Long-run inflation expectations(a)



(a) Five-year five-year RPI inflation forwards from UK gilts.

Finally, mention should be made of the supportive fiscal framework. Inflation targeting — or any other monetary framework for that matter — is only likely to be successful if it is accompanied by a prudent and sustainable set of fiscal plans. Though there are a variety of ways that this could be achieved, the MPC has been able to operate against such a background. Fiscal policy has generally been set with an eye to the long term, leaving monetary policy to manage the economy in the short to medium term. That arrangement reflects the current consensus that monetary policy is generally better suited to the active management of the economy, because changes in monetary policy can be speedily implemented. In contrast, changes in taxes or government spending normally require legislation. Moreover, increases in taxes and cuts in public spending tend to be particularly contentious, making temporary fiscal expansions hard to reverse.

A lack of co-ordination between the two main instruments of economic policy has sometimes been seen as an objection to central bank independence. But under the current arrangements, the risk of such a co-ordination problem is greatly reduced. First, the Chancellor sets the Bank's objective, so there should be no conflict in the objectives of fiscal and monetary policy. Second, there is a clear division of roles and responsibilities between the MPC and the Treasury, with each pursuing its role in a transparent and open fashion. This promotes a close understanding between the Bank and Treasury of how the other operates, which is reinforced by close working relationships at staff level, and the presence of a Treasury observer at MPC meetings.

The contribution of other factors to the 'Great Stability'

As noted earlier, the United Kingdom is not alone in having experienced low and stable inflation coupled with stable growth. That suggests that better monetary policy may not be the only factor at work. Some observers have suggested that central banks in general, and the MPC in particular, just happen to have been lucky in that there have been few major economic shocks to handle. However, the past decade does not seem especially tranquil, for instance at a global level we have seen:

- the integration of China, India and the former Communist countries of Eastern Europe into the world economy;
- the ICT revolution and the associated dotcom boom-bust;
- the emerging-market debt crisis and the collapse of LTCM in 1998;
- the sharp correction in international equity prices and the associated global slowdown in 2001;
- the attacks on the World Trade Centre and subsequent conflicts in Afghanistan and Iraq; and
- the tripling of oil prices over the past three years.

While at a domestic level, the MPC has also had to contend with:

- the effects of the 25% rise in sterling between 1996 and 1998;

- the tripling in house prices between 1997 and 2006;
- ongoing labour market reforms, including the introduction of a National Minimum Wage; and
- substantial, and highly uncertain, net inward migration, particularly from the Accession countries.

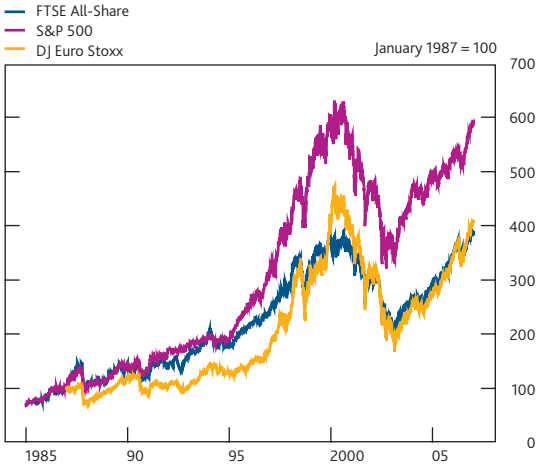
Reflecting this dynamic environment, the prices of domestic and international financial assets have at times moved sharply (**Chart 8**) and equity markets have experienced periods of considerable uncertainty (**Chart 9**). The volatility of the returns on a range of financial assets has not decreased as much as output and inflation volatility (**Table B**).(1) So it does not seem obvious that the economic environment has been markedly less volatile than in the past.

As far as empirical evidence goes, there are some studies, mainly for the United States, which suggest that a sizable portion of the improved performance is related to good luck rather than better policy.(2) However, others have suggested that the role of improved policy has been central.(3) And Ben Bernanke, Chairman of the Federal Reserve, has pointed out that studies which assign a large role to good luck almost certainly understate the role of monetary policy by failing to account properly for the impact of better policy frameworks in reducing the impact of shocks (see pages 26–27).(4) So there is, as yet, no clear consensus as to the relative importance of monetary policy and good luck.

Globalisation

Two particular factors have provided a generally benign backdrop to the MPC's efforts over the past decade, however. The first is the integration into the world economy of

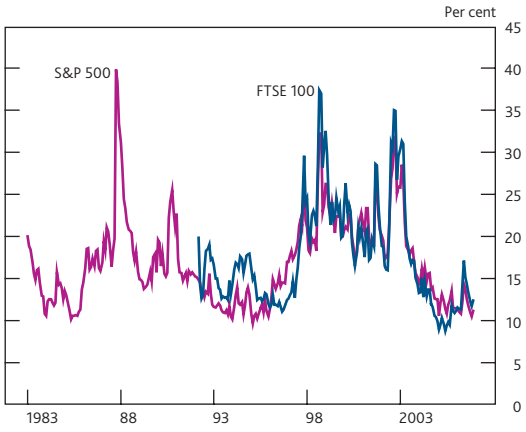
Chart 8 International equity prices(a)



Sources: Bloomberg and Thomson Financial Datastream.

(a) In local currency terms.

Chart 9 Implied equity market volatility(a)



(a) Three-month implied volatility measures, derived from options.

Table B Macroeconomic and asset price annual volatility(a)

	1951–59	1960–69	1970–79	1980–91	1992–2005	2002–05	Percentage change between 1960–69 and 1992–2005	Percentage change between 1980–91 and 1992–2005
S&P 500(b)	14.0	15.7	19.1	12.0	15.2	14.3	-3	27
FTSE All-Share(b)(c)		20.4	43.3	12.1	15.2	21.2	-25	26
Ten-year US Treasury bond(b)	3.4	5.4	7.8	15.4	9.6	6.9	78	-38
Ten-year UK gilt(b)(d)		3.1	11.2	7.7	4.9	3.5	57	-36
Sterling effective exchange rate index(e)			6.9	4.5	2.3	1.0		-49
Dollar effective exchange rate index(e)			5.4	4.4	2.9	3.3		-34
Yen effective exchange rate index(e)			9.9	4.3	4.0	2.0		-8
Euro effective exchange rate index(e)			1.8	3.0	3.0	1.8		-3

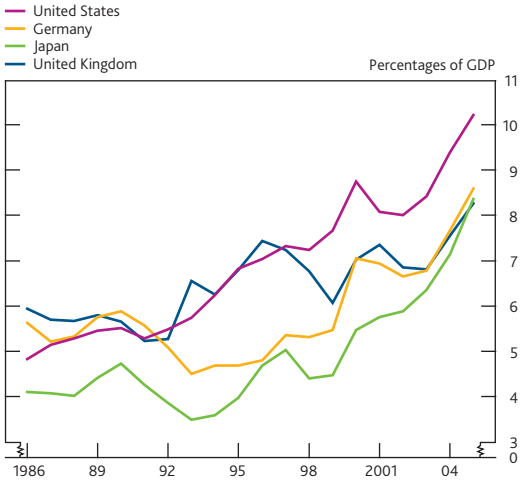
Sources: Bureau of Economic Analysis, Global Financial Data and ONS.

(a) Volatility is calculated as standard deviation of annual growth rates.
(b) Nominal returns deflated by consumption deflators. US Treasury bonds and UK gilts are based on total return indices from Global Financial Data.
(c) FTSE All-Share starts in 1962.
(d) 1960–69 includes 1956–59.
(e) Trade-weighted real exchange rate indices start in 1975.

(1) See Rogoff (2007) and Tucker (2006).
(2) Eg Cogley and Sargent (2005), Sims and Zha (2006) and Stock and Watson (2003).
(3) Eg Clarida, Gali and Gertler (2000) and Lubik and Schorfheide (2004).
(4) See Bernanke (2004).

Eastern Europe, China and India. To all intents and purposes that represents a doubling of the labour supply in the world economy. As these economies are relatively labour-abundant and wages are low, they have a comparative advantage in the production of labour-intensive goods and services compared to the developed economies. This has prompted considerable structural change in the United Kingdom and other developed economies, as the production of labour-intensive manufactures and tradable services has been replaced by imports from low-cost economies or else shifted offshore (**Chart 10**). Of course, this is not a new phenomenon: in earlier decades the emergence of Japan, Korea, Taiwan, etc, generated similar pressures. But what is new is the sheer scale of the shock. Moreover, advances in information technology have made it possible to move offshore parts of the production process in a way that was not previously possible (so-called 'task trade').

Chart 10 Import shares from low-cost economies

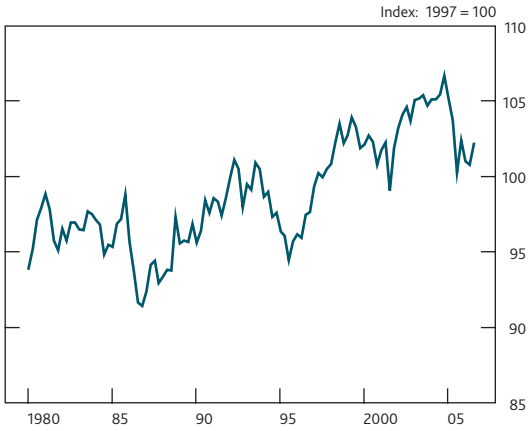


Source: IMF Direction of Trade Statistics.

The globalisation process has affected the environment in which the MPC operates in three main ways.(1) First, the emergence of these low-cost producers has led to a rise in the price of the United Kingdom's exports relative to that of its imports, known as the terms of trade (**Chart 11**). As a consequence, the real purchasing power of employees' wages has been higher than would otherwise have been the case. Historical experience suggests that such terms-of-trade improvements temporarily lower the rate of unemployment consistent with stable inflation. Such a terms-of-trade improvement therefore allows the economy to grow a little faster for the same inflation rate, or else for inflation to fall without requiring growth to dip. Globalisation has in effect provided a beneficial 'tailwind' to the MPC's efforts.

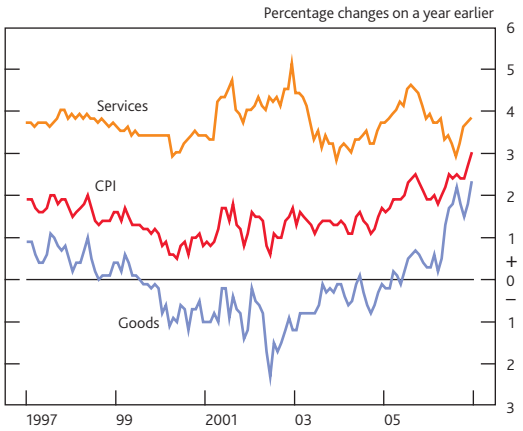
However, such a bonus is likely to be temporary, both because workers' wage aspirations will in due course adjust upwards and because the terms-of-trade improvement will eventually cease, and even unwind, as wages in the emerging economies begin to catch up with their developed economy counterparts. Moreover, the tripling of oil prices since 2004, and the rise in commodity prices more generally, is in large part a reflection of the emergence of these new economies and tends to work in the other direction. This beneficial 'tailwind', and its subsequent attenuation, is reflected in the marked divergence of the inflation rates of consumer goods and services that opened up in the late 1990s and early part of this decade, together with its more recent narrowing (**Chart 12**).

Chart 11 UK terms of trade(a)



(a) Excluding missing trader intra-community (MTIC) fraud.

Chart 12 CPI goods and services price inflation



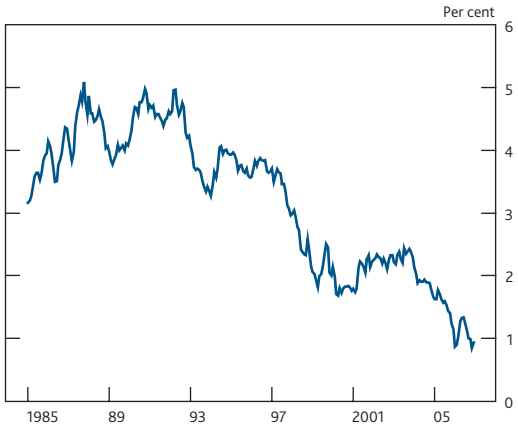
Second, globalisation may have altered the way the economy reacts to shocks. The exploitation of comparative advantage has increased import shares. That means that more of any stimulus to domestic demand tends to leak abroad. Moreover, the increased competitive pressures on businesses may make them less inclined to push prices up when demand increases. So globalisation provides another reason why the short-run trade-off between domestic activity and inflation may have flattened, as suggested by **Chart 5**. And these heightened competitive pressures may also have reinforced the

(1) For a fuller discussion of the impact of globalisation on inflation, see Bean (2006), Borio and Filardo (2006), IMF (2006) and OECD (2006).

attenuation in the response to cost shocks that was noted on page 27.

The third and final impact of globalisation worth recording is the impact on long-term real interest rates. One might have expected the entry of the labour-abundant economies of Asia and Eastern Europe to lead to high investment in those countries, financed by capital inflows, and upward pressure on global interest rates. Investment has indeed been strong, but high savings rates, in China especially, as well as in the oil-exporting countries, has put downward pressure on global and domestic long-term real interest rates (**Chart 13**), boosting global demand.

Chart 13 UK long-term real interest rate(a)



(a) Instantaneous ten-year real forward rate, derived from gilts.

Labour supply

The second generally benign factor has been an expansion in the effective UK labour supply. That has been associated with three drivers: a decline in the natural rate of unemployment; increased labour force participation; and net inward migration, especially from the A8 countries.

The fall in the unemployment rate, from around 10% in the early 1990s to around 5% now (**Chart 14**), has reflected a number of factors. One is the impact of the changed climate of industrial relations and the move to less centralised pay-setting, in part reflecting past legislative changes.(1) An increased onus on the unemployed to look for work, coupled with initiatives to help them find it, has also improved the effectiveness of job search.(2) The decline in the proportion of youths in the labour force, who typically have higher rates of unemployment, has also contributed.(3) And though the introduction of the National Minimum Wage in 1999 may have tended to push up equilibrium unemployment, its impact so far appears to have been relatively limited.(4)

Labour force participation has also edged up (**Chart 15**), as rising female participation more than offset lower male participation and a shift from long-term unemployment into incapacity benefit.(5) Increases in the retirement age, age discrimination legislation, and measures to encourage more flexible working practices are all likely to support higher labour force participation in the future.

Chart 14 LFS unemployment rate

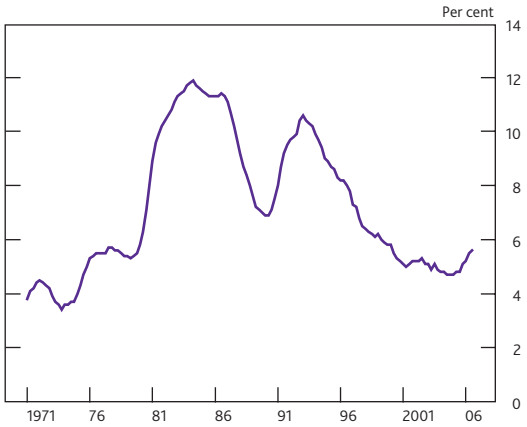


Chart 15 Labour force participation

Finally, the UK labour force has been augmented by a significant rise in net inward migration, especially since May 2004 and the enlargement of the European Union to include eight central and eastern European countries. The data in this area are poor, so it is difficult to know by exactly how much the labour force has been boosted. But it seems likely that migration from the A8 countries has added between 215 thousand and half a million people to the UK labour force since May 2004.(6)

These various structural changes have served to increase the supply capacity of the economy. As the associated increase in incomes is likely to lead to higher demand, particularly if it is also associated with higher investment by businesses, the net

(1) See Layard, Nickell and Jackman (1991) and Kersley *et al* (2006).
(2) See Millard (2000).
(3) See Barwell (2000).
(4) See Dickens, Machin and Manning (1999), Manning (2003) and Stewart (2004).
(5) See Gutiérrez-Domènech and Bell (2004).
(6) See Blanchflower, Saleheen and Shadforth (2007).

impact on inflationary pressures is in principle uncertain. But in practice, it seems likely that the increase in supply did not immediately lead to an equivalent increase in domestic spending, especially since migrants typically remit a substantial fraction of their earnings to their home country.(1) So the increase in the effective labour force has probably tended to reduce inflationary pressures, providing a beneficial 'tailwind' similar to that offered by globalisation.

A second consequence, associated particularly with migration, is also worth noting. Some A8 migrants would have come to the United Kingdom independently of the state of the UK labour market, drawn by the much higher level of wages here than in their home country. But others would only have come if they had a job to go into, or if they believed they could find one relatively easily. And businesses have increasingly directly recruited workers from the A8 (and other) countries when they needed them, often through specialised agencies. So the flow of migrants is likely to be responsive to the state of the labour market, in effect offering a 'safety valve' when it becomes tight and enabling employers to adjust their inputs in response to changes in demand more easily. Moreover, the ability to source workers from overseas has also increased competitive pressures in the labour market, limiting the upward pressure on wages when it tightens. So migration provides yet another reason why the short-run activity-inflation trade-off may have flattened.(2)

Issues

The remainder of this submission addresses a number of particular issues that have arisen over the past decade, some of which are flagged in the Treasury Committee's Call for Evidence.

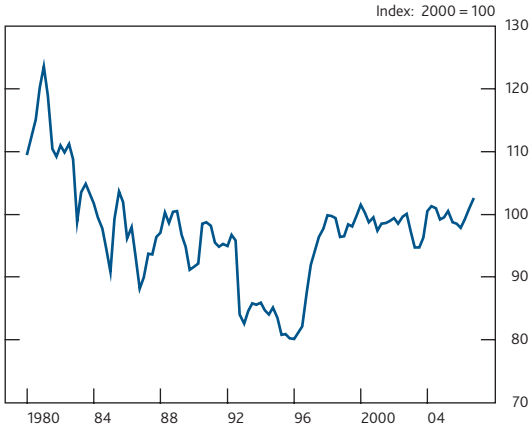
The balance of demand and the exchange rate

A particular feature of the UK economy over the past decade has been the relative reliance on domestic spending — particularly private and public consumption — as the engine of demand growth. Net trade detracted from growth from 1996 to 2004, the longest such sequence on record. That is in contrast to the period from 1993 to 1996, when domestic demand growth was subdued and net trade was a significant driver of demand growth.

This strength of domestic demand has been reflected in the balance of payments. Although the picture is clouded by missing trader intra-community VAT fraud, official estimates for 2005 suggest that the trade deficit was 3.6% of GDP, while the current account deficit was 2.4%. The smaller current account deficit reflects the fact that the United Kingdom runs a surplus on net interest, profits and dividends from abroad, despite being an overall net debtor. In other words, the United Kingdom earns more on its assets than it pays on its liabilities; that in part reflects the fact that its liabilities tend to be more bond-like, while its assets are concentrated in higher-yielding, though potentially riskier, assets.(3)

This current account deficit partly reflects the impact of the sterling effective exchange rate, which, after a period of weakness between 1992 and 1996, returned to levels seen prior to the exit from the ERM (**Chart 16**). That has placed pressure on the internationally tradable sector of the economy (including, but not exclusively, manufacturing). In the early years of the MPC, the appreciation of 1996, and the resulting downward pressure on import prices, therefore reinforced the beneficial 'tailwind' exerted by globalisation.

Chart 16 Sterling effective exchange rate index



A striking feature of the past decade has been the broad stability in the sterling effective exchange rate, despite substantial swings in the dollar-euro exchange rate. That is because appreciations against the dollar have generally been offset by depreciations against the euro and *vice versa*. This broad degree of stability was unanticipated: many people expected the replacement of an exchange rate target by an inflation target to result in more, not less, variability in the effective exchange rate. The explanation may lie in part with the credibility of the monetary framework. The value of the exchange rate today is heavily influenced by what it is expected to be in the future: if the currency is expected to be lower tomorrow, then that will encourage traders to sell it, pushing down its current value. So a credible monetary framework will not only lead to stable long-term inflation expectations (**Chart 7**), but may also help to anchor expectations of future exchange rates.

At some stage the current account deficit will probably need to close. At that point, in order to shift resources from the non-tradable sector of the economy into the internationally

(1) See Blanchflower, Saleheen and Shadforth (2007).
(2) See King (2005b).
(3) See Nickell (2006) and Whitaker (2006).

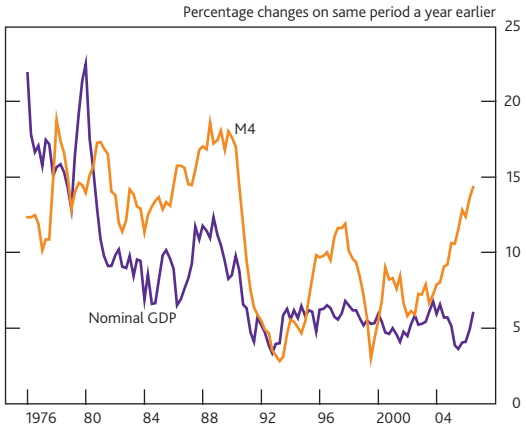
tradable part, some depreciation of the real effective exchange rate will probably be necessary.

Money supply and liquidity

On average, over time and across countries, persistently high rates of broad money growth have been associated with high nominal demand growth and inflation. Sustained and substantial increases in the general level of prices invariably seem to be accompanied by corresponding increases in the money supply. And since the rate of growth of real output is ultimately determined by the quantity of real resources in the economy and the efficiency with which they are used, inflation could ultimately be controlled by targeting the quantity of money if the relationship between money and nominal demand — the velocity of circulation — were stable and predictable.

Unfortunately, although sustained rapid monetary growth tends to be associated with high nominal demand growth and inflation in the long run, the velocity of circulation has turned out to be quite variable over the short and medium term (**Chart 17**). That is because the demand for money holdings can be affected by changes in the relative attractiveness of holding money, such as movements in the returns on alternative assets and innovations that improve the services provided by bank deposits. As a result, most central banks that pursued monetary targets have since ceased actively targeting them. The problems of using a monetary target were aptly summed up by Governor Gerry Bouey of the Bank of Canada who reputedly remarked: 'We did not abandon the monetary aggregates; they abandoned us'.

Chart 17 Broad money and nominal demand



Even so, it would be unwise to ignore the money supply entirely. In recent quarters, UK broad money has grown at higher rates, relative to nominal demand, than at any time since 1990 (**Chart 17**). Investors are likely to take advantage of this ample liquidity and the associated easy credit to purchase other assets, driving risk premia down and asset prices up. Even though the lags may be long and variable, in due course those higher asset prices may be expected to feed through into higher demand for goods and prices, putting upward pressure on the general price level. Moreover, if private agents believe that rapid monetary growth is a harbinger of high inflation to come, then its effects may be telescoped into the present via its impact on inflation expectations and the exchange rate.

The analysis of current monetary developments has been complicated by two factors. First, the recent rapid growth in the money supply has been concentrated in the holdings of Other Financial Companies. This is a collection of heterogeneous institutions that includes pension and private equity funds, entities which in effect intermediate funds between different banks, and financial vehicles whose object is to shift risk off banks' balance sheets. The implications of the activities of each of these for asset prices and future movements in nominal demand are not easy to gauge.

Second, the expansion in liquidity has been a global, rather than a purely national, phenomenon. The increased integration of international capital markets means that the consequences of a loose monetary policy now spill across national borders. Thus investors have taken advantage of ample liquidity and unusually low interest rates in eg Japan to borrow in order to invest in higher yielding assets overseas, boosting asset prices internationally. Money supply measures typically include only holdings by residents and thus fail to capture this dimension properly.

Along with some other central banks, the Bank of England has been struggling to work out how best to take on board the information in the monetary aggregates. The European Central Bank has opted to do this by adopting a 'two-pillar' approach in which an analysis of short-term inflation prospects is complemented by a reference value for money growth. Given the past instability of velocity, the MPC has chosen not to go down this route. Instead it tries to understand the developments in velocity and use the analysis to help isolate the longer-term risks to the inflation outlook.

Asset prices and monetary policy

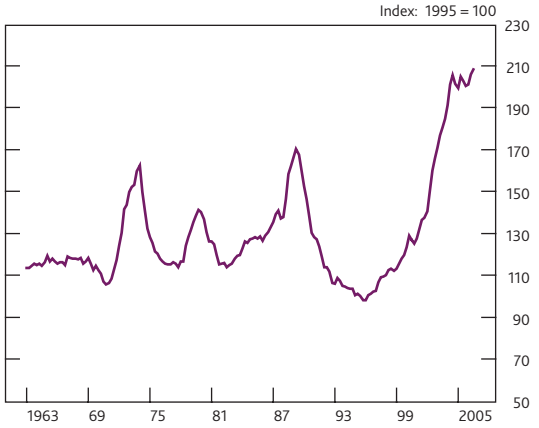
Financial and real asset prices, being forward looking, potentially contain useful information for monetary policy makers. In particular, asset prices reflect not only current demand pressures, but also expectations of future inflation and future income. Unfortunately, it is not straightforward to extract that information, because many factors affect asset prices, which can be quite volatile over short periods. Nevertheless, they represent an important input into the regular deliberations of the MPC.

House prices are a particular asset price that has figured in MPC discussions. While an increase in house prices does not

directly make most households better off — a homeowner can only unlock the capital gain if (s)he is willing to move to a cheaper house — it does increase the collateral against which cash-constrained households can borrow and may thus boost consumer spending through that route. So house prices are one factor influencing consumer spending.(1)

The ratio of house prices to household income is presently around two thirds higher than its historical average (**Chart 18**). In part, that reflects the decline in long-term real interest rates mentioned earlier. It probably also reflects demographic developments that have led to rising demand for homes coupled with relatively low rates of housing investment. And it may also reflect more efficient credit-scoring by lenders. But it is very difficult to quantify the relative importance of these factors, or to make a projection of how house prices are likely to move in the future.

Chart 18 House price to income ratio(a)



Sources: Nationwide and ONS.

(a) Nationwide house price index divided by average earnings index.

Some economists have, however, gone further and argued that asset prices should actually enter the target in some way.(2) That is obviously not consistent with the Government's inflation target as presently specified. Moreover, trying to stabilise asset prices would potentially result in considerable volatility in interest rates, activity and inflation. However, it is possible that a period of sharply appreciating asset prices may raise the threat of a future correction, which in turn might result in a cut-back in lending in response to the decline in collateral, a fall in activity and downward pressure on inflation. In principle, policymakers should take account of that possibility and may therefore decide to raise interest rates and undershoot the inflation target in the near term in order to increase the chances of meeting it further in the future. Moreover, they should also want to reduce the future volatility of inflation and output, strengthening the case for preventing financial imbalances building up in the first place.(3) However, calibrating such a 'leaning-against-the-wind' policy is particularly difficult once account is taken of uncertainty about: the cause of the rise in asset prices; the likelihood and consequences of a subsequent correction; and the uncertainty about the impact of higher interest rates on those asset prices.(4)

Household debt and monetary policy

A feature of the past decade has been the build-up of household debt (**Chart 19**). Secured debt has risen as a proportion of annual post-tax household income from 75% in 1996 to 120% in 2006. Over the same period, unsecured debt as a proportion of household income has risen from 15% in 1996 to 24%. But while debt has grown quickly, in aggregate it has been primarily used to finance real (housing) and financial asset accumulation, rather than spending on goods and services. The net financial position of the household sector has not changed very much since the early 1990s: net financial wealth as a share of household income was broadly the same in 2006 as in 1993. And including real assets, household net worth was higher as a share of post-tax household income, largely reflecting the increased value of housing wealth (**Chart 20**).

Chart 19 Household debt

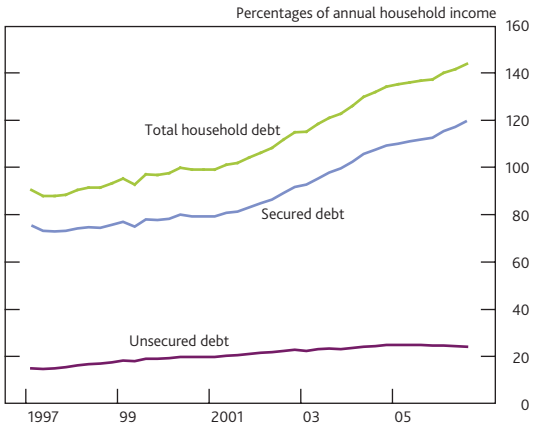
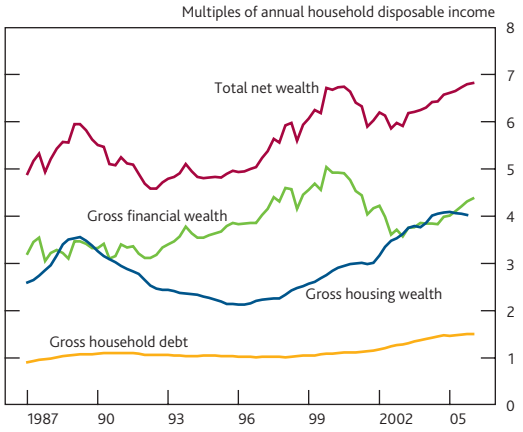


Chart 20 Household assets and liabilities



Sources: ONS and Bank calculations.

(1) See Aoki, Proudman and Vlieghe (2002) on the collateral effect, while Benito *et al* (2006) consider the broader relationship between house prices and consumption.
(2) For conflicting views, see Bernanke and Gertler (2001) and Borio and Lowe (2002).
(3) See Tucker (2006).
(4) See Bean (2003).

The evolution of secured debt — the bulk of household debt — is primarily associated with developments in the housing market. As house prices have risen and the housing stock has turned over, so younger households moving onto, or up, the property ladder have needed to take out larger mortgages, while older households trading down have placed the bulk of the housing equity so released into financial — often relatively liquid — assets. Since it will take many years for all the housing stock to roll over, secured debt can be expected to continue growing strongly for many years to come, even if the house-price-to-income ratio stabilises at present levels.(1)

To what extent should this build-up of debt affect the conduct of monetary policy? Under one view,(2) it is of negligible significance as what matters for household spending is net wealth, not debt. However if, as seems likely, indebted individuals respond more strongly to a rise in their interest payments than do savers to a corresponding rise in their interest receipts, the impact of interest rate changes on demand will be altered. Moreover, even if higher debt is matched by higher assets, the higher leverage involved could amplify the effects of shocks, such as a fall in house prices: a given percentage fall in house prices will generate a larger proportionate fall in wealth in a low price/low debt world than in a high price/high debt one. And the repercussions on lenders' balance sheets and behaviour may also amplify the effects, further complicating the operation of monetary policy.(3)

There is little to suggest that the build-up of secured debt has so far had any significant impact on the economy: repossessions remain at relatively low levels and the Bank's latest annual survey of the borrowers(4) suggests that only one in twelve mortgagees has found any difficulty keeping up their mortgage payments, much less than in the early 1990s. However, the Bank will continue to monitor the situation through its annual survey. It has also recently announced plans for a new survey of credit conditions.(5)

There is more evidence to suggest that the level of unsecured debt might be presenting problems. The Bank's annual survey suggests that around a third of unsecured borrowers find their debt a burden. However, these households are typically low-income households who account for a relatively small fraction of aggregate consumption. So while excessive unsecured borrowing may represent a significant social issue, as yet it does not constitute a material macroeconomic influence.

Investment and monetary policy

Investment is one of the channels through which monetary policy affects aggregate demand (the others being consumption and net trade, via the exchange rate). Around 60% of business investment spending is on capital goods produced in the United Kingdom, so higher investment puts pressure on supply capacity, raising inflationary pressures. But in the longer run, investment adds to the supply capacity of the economy, so putting downward pressure on inflation.

A reduction in Bank Rate lowers the cost of finance to businesses and should therefore encourage them to invest more. However, the durability of capital, together with its irreversibility, means that it is long-term, rather than short-term, interest rates that tend to matter. As noted earlier, risk-free long-term real interest rates have fallen to historically low levels in recent years. The buoyancy of equity markets and the compression of risk premia on corporate bonds in the past three years have put additional downward pressure on the cost of finance to businesses. Moreover, the price of capital goods, particularly IT goods such as computers, has been falling relative to the price of other goods and services.(6) Despite all that, business investment growth had been quite subdued since the millennium, at least up until 2006, contributing to the imbalance in the pattern of demand growth that was discussed earlier.

This weakness reflects the fact that other factors are likely to be of more importance than the cost of finance in determining the level of investment; certainly empirical studies suggest that the influence of the cost of capital is relatively weak. Expectations of future profitability are key, and heightened uncertainty about prospects can lead to investment being put on hold, which may have been the case in the early stages of the recovery from the 2001–03 slowdown. Balance sheet considerations may also have been important, particularly for smaller companies who have to rely on the banks for finance rather than internally generated funds. And for companies with limited access to outside funds, the need to cover pension deficits may also have been a factor. Finally, the recent investment weakness could in part reflect the unusually high levels of investment in IT ahead of the millennium, which reduced the need for subsequent investment.

The next decade

In October 2003, the Governor described the previous ten years as the 'nice' — ***n***on-***i***nflationary ***c***onsistently ***e***xpansionary — decade. As noted above, the volatility of output and inflation were unusually low over this period compared to past experience. Some of that is probably down to the effectiveness of the monetary framework, but some is almost certainly the result of the broader macroeconomic

(1) See Hamilton (2003).
(2) See Nickell (2004).
(3) See Large (2004) and Tucker (2003).
(4) See Waldron and Young (2006).
(5) More details are available at: www.bankofengland.co.uk/publications/other/monetary.htm.
(6) See Ellis and Groth (2003).

environment, in particular the beneficial tailwinds from globalisation and the increase in the labour force.

We cannot guarantee that the next ten years will be so 'nice'. Many of the benefits of globalisation have already worked through, and the adverse impact on commodity prices of the development of China and India is now being felt. And the effective labour force is unlikely to grow as rapidly as it has done over the past decade or so. Moreover, some aspects of the global economy look unsustainable, particularly the pattern of global current account imbalances and the low level of real interest rates and risk premia. So the macroeconomic context is likely to be somewhat less benign.

In the face of these uncertainties, the strength of the current monetary policy framework is the flexibility it gives the MPC to adapt its analysis in the light of events and new data, while still maintaining a clear focus on the inflation target and thus anchoring inflation expectations. As a result, the present policy framework should have the capacity to withstand more turbulent times, if and when they materialise.

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