



# **Economic Stability and the Business Climate**

Speech given by Kate Barker, Member of the Monetary Policy Committee

At Managing Directors' Club, Sheffield University 24 November 2005

I would like to thank Miles Parker for allowing me to draw on his work; Jennifer Deaville-Powner, Rebecca Driver and Jumana Saleheen for their help in preparing this speech; and the Governor, Karen Dury, Colin Ellis and Garry Young for helpful comments. The views expressed are my own and do not necessarily reflect those of the Bank of England or other members of the Monetary Policy Committee.

All speeches are available online at www.bankofengland.co.uk/publications/Pages/speeches/default.aspx

#### Economic stability and the business climate

Good evening.

The Monetary Policy Committee's task could be described as forming an assessment of prevailing economic trends and future prospects, in order to reach a judgement about where to set short-term interest rates in order to keep inflation on target in the medium-term. For the most part, the way in which we discuss the prevailing economic situation is from a top-down perspective, although trends among individual firms also form part of our information set.

In managing individual businesses, the viewpoint which many of you will have is the reverse of this. While conditions in the whole economy will be an important backdrop, your key focus will be on trends such as demand for individual products, specific domestic and foreign competitors, and product innovation. One topic which I want to discuss in these remarks is a possible difference in perception from these two perspectives about the stability of the UK over the past decade or so, and the potential significance of this for the future behaviour of the economy. In addition, I will look more generally at recent economic performance and at the risks around short-term prospects.

One striking feature of the recent past is a reduction in UK economic volatility (the change in inflation and output growth rates from year to year) since the move to inflation targeting in 1992. For example, Benati (2004) concludes that the period since 1992 can be shown to have seen less volatility of both GDP growth and inflation than any other period since 1945. Shallower cycles bring a number of benefits – including the avoidance of periods of sharply rising unemployment with associated costs in social terms, and a more stable planning environment for business, supporting investment plans.

Of course, the fact that this greater stability was apparent after the start of inflation targeting does not imply that it resulted from the regime itself – the question remains about whether the improved performance has been due to good policy or good luck. In the academic debate, the 'good policy' hypothesis covers more than monetary policy institutions. For example, it includes the enhanced credibility of the policymaker, and a better understanding of the causes and costs of inflation (and of the trade-off between

unemployment and inflation). The 'good luck' hypothesis on the other hand suggests that since 1992 the UK economy has been hit by fewer or smaller shocks, or that these shocks have had a more muted effect on the economy.

The reduction in economic volatility is not confined to the UK, but is also apparent in many other countries to a greater or lesser extent<sup>1</sup>. This includes some which have not adopted an inflation targeting regime, casting some doubt on the 'good policy' hypothesis. Perhaps the best summary of the debate at present is that the jury remains out on what weight to give to 'luck' or to 'policy'.

But it is certainly not true that there have been no economic shocks since 1992. This period includes sterling's effective exchange rate appreciation of around 25% between December 1995 and April 1998, the Asian crisis and Russian defaults in the late 1990s, and the fears of a major crisis of confidence following the terrorist attacks in September 2001. And at present, the MPC is concerned about the response to the most recent shock: the approximate doubling in the price of crude oil since the end of 2003. Inevitably, the ability of the current monetary regimes to deal with shocks will continue to face new challenges, just as it has over the past decade.

Good policy judgment however does not only mean monetary policy. It is not easy to distinguish between better monetary policy and better supply-side policies which may have improved the working of the markets for goods and for labour.<sup>2</sup> So neither those who have established the monetary frameworks, nor the central bankers who operate them, are likely to be justified in claiming all the credit for good outturns. And nor have they done so.

However the relative stability of the macroeconomy is not necessarily repeated at the level of the individual firm. In the US, some recent work<sup>3</sup> suggests that the decline in aggregate volatility has been associated with a rise in firm-level volatility. This rising volatility at the firm level is not related either to the age of firms, or to the sector in which they operate.

<sup>&</sup>lt;sup>1</sup> For example, Stock and Watson (2003). <sup>2</sup> Ceccheti *et al.* (2004).

<sup>&</sup>lt;sup>3</sup> Comin and Mulani (2004).

Why might this divergence in trends occur? Two possibilities have been suggested in the US context. The first is that it might result from an increase in product market competition – since in a more competitive environment firms will have more incentive to change prices frequently. This leads to greater variation in outcomes for firms, but implies a more flexible response to shocks, reducing the volatility of the whole economy.<sup>4</sup>

The second possible explanation is that as financial markets have become deeper, this has enabled firms to borrow to finance more risky projects. At the same time, the economy becomes more diversified, so that shocks are less prone to have the same effect across firms.<sup>5</sup>

Both these explanations suggest that the economy will tend to function more efficiently. There may also be implications for monetary policy; for example, there might be changes in the way firms set prices and bargain over wages.

Given the potential implications for policy, it is of interest to consider whether a similar picture of increased firm level volatility can be found in UK data. In order to investigate this, preliminary work has been undertaken for the UK, with a similar approach to the Comin and Mulani study, using a database of company accounts data drawn from Datastream which covers the period from 1973 to 2003.<sup>6</sup> Inevitably, data are not available for all firms in the full sample throughout the entire period, and the results discussed below refer to a *balanced panel* of 167 companies, for which sales data were continuously available. Data drawn from the full sample (using all firms for which there were at least ten years of consecutive data) have also been considered and indicate broadly similar conclusions.<sup>7</sup>

Charts 1 and 2 show some of the key results from this study. Chart 1 indicates that the volatility of real sales growth (using the producer output price index as the deflator) has shown an upward trend using both a ten-year and a five-year measure of volatility. The

<sup>&</sup>lt;sup>4</sup> Philippon (2003).

<sup>&</sup>lt;sup>5</sup> Acemoglu (2005).

<sup>&</sup>lt;sup>6</sup> I am very grateful to Miles Parker for carrying out this work on my behalf

<sup>&</sup>lt;sup>7</sup> Total sales by year for the full sample of firms cover approximately 80% of GDP, and for the balanced sample cover approximately 20% of GDP.

volatility measure used is the standard deviation.<sup>8</sup> However, the chart also suggests that this is not a smooth trend. It is possible that volatility rose and fell during the 1990s, in which case it cannot be ruled out that the recent renewed increase will not also be reversed in the future.

Chart 2 shows similar data, but for the volatility of the real growth rate of profits. Again, five-year volatility suggests a more hump-shaped profile, with higher volatility during the early 1990s, when there was also greater volatility at the whole economy level.

Charts 3 and 4 point up the contrast a little more clearly. They show the volatility of real sales growth and real profits growth for the aggregate of the firms in the panel.<sup>9</sup> In both cases, particularly the latter, the aggregate data appears to be on a declining trend. The contrast between aggregate and individual firm data is especially noticeable between 1998 and 2003. So for individual firms, there seems to be no evidence of the increased stability that has been such a feature at the macroeconomic level; and it may be that the contrast between the whole economy and individual firms will be helpful in further work on identifying the reasons for the greater overall stability. It is not, of course, the case that macroeconomic stability is designed to help individual firms; although by delivering low and stable inflation firms should be enabled to focus on their business strategy without also having to worry about inflation prospects.

What are the implications of these studies for policy? Part of the explanation for the divergence between aggregate and individual experiences is that the economy as a whole is now more flexible. Shocks are smoothed out better by shifts in the allocation of labour and capital. As markets have become more open to competition, firms look harder at how their competitors may react, and may be more cautious in their approach to wage and price

<sup>9</sup> Aggregate volatility is measured as the ten-year standard deviation of the growth rate of *total* real sales (the

total being the sum of sales across the 167 companies). It is given by  $\sqrt{\frac{1}{10}\sum_{s=0}^{9}(x_{t-s}-\overline{x}_t)^2}$ , where  $x_t$  is the

growth rate of total real sales, and  $\overline{x}_t$  is the mean value of total sales over the past 10 years.

<sup>&</sup>lt;sup>8</sup> The ten-year standard deviation of the growth rate of real sales for *each company i*, is computed as:

 $<sup>\</sup>sqrt{\frac{1}{10}\sum_{s=0}^{9}(x_{it-s}-\overline{x}_{it})^2}$ , where  $x_{it}$  is the growth rate of real sales for company *i* in year *t*, and  $\overline{x}_{it}$  is the

average growth rate of real sales for company i over the past 10 years. The average of this standard deviation across (167) companies each year gives the measure of firm level volatility reported in Charts 1 and 2.

setting – especially in an environment where their inflation expectations are firmly anchored. Firms may also be more likely to perceive shocks as idiosyncratic. This leads to greater variation in outcomes for firms but to a benign macro environment in which policymakers can deliver low inflation, and so reinforce the message of aggregate stability.

In the late 1980s and early 1990s, the business sector frequently argued that a more stable economy would enable firms to plan from a longer-term viewpoint, resulting in a higher rate of investment and fostering stronger growth. Chart 5, which shows the share of business investment in GDP in real and nominal terms, suggests that there is little evidence of a change of trend in investment. Given the falling relative price of investment goods, and under a plausible assumption about the degree to which capital and labour are substitutes, the real share of investment in GDP has not risen particularly strongly.<sup>10</sup> One partial explanation for this might be the evidence referred to above, which suggests that at the firm level uncertainty may have increased, rather than decreased. Looking at the CBI survey of manufacturing companies, it is interesting to note that the proportion of firms citing uncertainty about demand as a constraint on their investment plans has if anything tended to rise under inflation targeting – an average of 45% cited this as a constraint between 1980 and 1992, rising to 51% post-1992.

I will now turn to discuss some of the broad trends over the period since the Bank of England took over the setting of interest rates in 1997, and consider the outlook against that background. A key question for the MPC, in considering the judgments around our quarterly economic forecast, is how the present level of demand in the economy relates to the supply capacity of the economy. Too great a pressure of demand will tend to put upward pressure on inflation. Judgments about supply capacity are always difficult to reach – there is much uncertainty about what a plausible estimate of the long-term growth rate, and, more relevantly, about how supply capacity is changing over the forecast period. One way to think about this question might be to consider the recent GDP growth performance, compared with the historic average.

<sup>&</sup>lt;sup>10</sup> Ellis and Groth (2003).

Chart 6 shows the annual growth rate in the UK by quarter since 1980. Taking this period as a whole, growth has averaged around 2.4%. This rises to 2.7% from 1992, when the UK moved to inflation-targeting, and to 2.8% since Bank independence in mid-1997.

The overall picture of robust economic performance since 1997 has certainly been one of the reasons why the formation of the MPC is regarded as a success, in addition to the achievement in terms of keeping inflation close to target over the period. But some of this favourable picture has been due to factors which the MPC is not able to influence. In particular, the UK has benefited since the mid-1990s from a rise in our export prices relative to our import prices (chart 7).<sup>11</sup> This was most marked up to 1998, and since then has been more stable. This has implied an increase in the purchasing power of UK consumers, which was associated with, and may have contributed to, an increase in the growth of consumer spending. Spending was also boosted by the rise in house prices, in turn partly driven by the decline in long-term real interest rates which increased the relative attractiveness of housing assets

A second supportive factor has been the improvements in the labour market. Unemployment fell from over 10% in 1992 to 4.7% in August 2005 (chart 8). During this period wage growth has been relatively stable, averaging 4% and fluctuating within a narrow band of 2-6%. The fact that the fall in the unemployment rate did not lead to a sizeable pick up in wage pressure has led to the conclusion that since 1992 there has been a decline in the rate of unemployment at which it is possible to keep inflation stable.<sup>12</sup> (It might be noted for example that in Sheffield, since Bank independence, claimant count unemployment has fallen from over 22,000 to around 8,500.) This can be attributed to a number of factors, including improvements in labour market flexibility and more recently the impact of increased inward migration. A further influence may well be the improved credibility of the inflation-targeting framework, so that wage bargainers take into account an expectation that inflation is likely to remain at, or return to, the target. Whatever these various factors have contributed, the key point is that the benefit of declining unemployment, in terms of boosting growth per head of working age population, is likely to have run its course.

<sup>&</sup>lt;sup>11</sup> Dury *et al.* (2003).
<sup>12</sup> See for example Nickell and Quintini (2002).

Looking at the past five years, the Chart 6 suggests that since 2001 there has been a general slowdown from a period of strong growth (although compared with the early 1980s and 1990s this slowing has been very modest). Indeed, GDP growth has averaged just 2.3% over this period (and 1.7% per person of working age, see Table 1, which suggests that GDP on this latter basis has slowed more over the recent past). Over the past year, even allowing for the tendency for recent estimates of growth to be revised up (the ONS suggests that GDP data is likely to be revised up by a little less than 0.4%, on an annual basis, within around two years from the first estimate <sup>13</sup>) it seems that growth has been weaker than its average since 1980.

In order to consider what this slowdown means for the balance of demand and supply in the economy, the MPC's general approach is to estimate the UK's production capacity, given the existing stock of capital and the potential labour supply consistent with stable inflation. This is also supplemented by consideration of business survey evidence. At present these give a mixed reading, although the general impression is that capacity pressures have recently eased back a little.

In the middle of this month the MPC published its latest forecast, in which the central projection was for GDP growth to recover quite strongly, as the economy moves beyond the recent slower patch. The key assumptions underlying this recovery (set out in more detail in the *Inflation Report*) included a continuation of strong global growth, helping to improve the UK's external trade position, and a modest pickup in consumer spending, supported in part by the stabilisation of the housing market. This was judged to be consistent with inflation remaining on track to meet the target in the medium term.

As always, there are many upside and downside risks to these projections for growth and inflation. Some of these relate to the rise in the oil price – where it remains uncertain how much of the rise in the oil price has so far fed through into CPI inflation, and unclear whether higher oil prices will reduce supply potential by prompting the scrapping of some less energy efficient capital. The MPC has however also explained that part of the adjustment to the oil price rise will be a period of slower real wage growth and commented on the uncertainty about how far employees might resist this adjustment.

<sup>&</sup>lt;sup>13</sup> George (2005).

This is not intended as a repetition of the various risks outlined in the *Inflation Report*. Rather, the following comments are about risks which may not crystallise until beyond the forecast period, but could at some time have probable downside implications for growth. One key risk relates to long-term real global interest rates, which are presently at low levels by historical standards. It is generally unclear why this decline has taken place, and there is consequently a risk that it will be reversed (for example, to the extent that it related to an excess of savings in Asia, relative to investment opportunities, then as domestic demand strengthens in Asia, capital flows to the rest of the world might fall back). An upward shift in long-term real interest rates, unless related to an improvement in prospects for growth, could have a significant downward impact on house prices, not just in the UK but also the US and elsewhere, with consequent downward pressures on consumer spending growth.

There is also the possibility of interlinked risks – as rising domestic demand in China and elsewhere could put greater pressure on the global capacity to supply, pushing up the rate of goods price inflation. This could bring a reversal of the beneficial impact of the shift in trade prices described above, with import prices rising more rapidly and domestic real incomes growth having to be reduced in order to keep inflation on target.

Drawing these remarks together, preliminary work suggests that the 'Great Stability' of the UK economy since the inception of inflation targeting has not been reflected at the level of individual firms – and indeed that in the UK individual firms may have seen increased volatility for sales and for profits. In the US, where a similar contrast is apparent, various explanations for it have been put forward. It is possible that the divergent trends in volatility might be related, to the extent that firms undertake more risky projects in a more stable macro environment. However, an alternative explanation might be that greater firm volatility is due to greater competitive pressures. This latter case would provide some explanation for the fact that business investment in the UK has been weaker than expected given the more stable macroeconomic performance.

Looking at recent trends in growth rates, there are some indications that the pick-up in growth apparent during the first decade or so of inflation-targeting has recently fallen back a little. In particular, despite the recent sharp decline in the pace of growth, business surveys do not suggest that the UK economy in the second half of 2005 is much below its

supply capacity. The MPC's latest best central projection is that growth will recover over the next year, and move above its average of the last 25 years. In terms of the risks around this projection, my own view is that these are balanced for inflation, and indeed in the short-term there remains a risk that the recent rise in inflation might spark a more persistent upward shift in inflation expectations. But for growth the risks may be towards the downside, with particular uncertainties around the world outlook in the medium-term.

Taking a longer view, it is encouraging that, as suggested above, the contrast between aggregate and individual volatility may support the resilience of the economy to shocks. But there are other concerns. Since 1997, the MPC's reputation has been good – and there has been a good outturn not just in terms of low and stable inflation, but also improvements in household income growth, rising asset values due to lower real long-term interest rates and a declining unemployment rate. As discussed above, for the most part credit for these other favourable trends is not due to the MPC. Prospects appear rather less positive. Recent trends in import prices to the UK (Chart 9) suggest that the terms of trade improvement may not continue. Real long-term interest rates are unlikely to fall further. The decline in the rate of unemployment consistent with stable inflation seems likely to have come to an end. But while this is a note of caution, it should not be overplayed. It is possible that other favourable trends could emerge - such as sustained faster euro-area growth, or an improvement in the UK's productivity performance. Even if these do not occur, while the outlook may be less favourable than the recent past, it is still good when compared to a longer historical perspective. And of course whatever emerges, the MPC will continue to focus on the important goal set for us by Government, of delivering low and stable inflation.

#### References

Acemoglu, D (2005) "Discussion of Comin and Philippon 'The rise in firm-level volatility: causes and consequences". NBER 20<sup>th</sup> Annual conference on Macroeconomics.

**Benati, L (2004)** 'Evolving post-World War II UK economic performance'; *Working Paper no 232, Bank of England.* 

**Brierley, P and Bunn, P (2005)** 'The determination of UK corporate capital gearing'; *Bank of England Quarterly Bulletin, Autumn,* pp 356-366.

Ceccheti, S, Flores-Lagunes, A and Krause, S (2004) 'Has monetary policy become more efficient? A cross-country analysis'; *NBER Working Paper 10973*.

**Comin, D and Mulani S (2004)** "Diverging trends in macro and micro volatility: facts", *NBER Working Paper 10922.* 

**Comin, D and Mulani, S (2005)** "A theory of growth and volatility at the aggregate and firm level" *NBER Working Paper 11503*.

**Dury K, et al. (2003)** "What caused the rise in UK terms of trade" *Bank of England Quarterly Bulletin*, Summer, pp 164-176.

Ellis, C and Groth, C (2003) "Long-run equilibrium ratios of business investment to output in the United Kingdom" *Bank of England Quarterly Bulletin*, Summer, pp 177-187.

**George, E (2005)**. "Revisions to quarterly GDP growth and its production and expenditure components' *Economic Trends 614*.

Nickell, S and Quintini, G (2002), The recent performance of the UK labour market', *Oxford Review of Economic Policy*, Vol 18, Issue 2.

**Philippon, T (2003)** "An explanation for the joint evolution of firm and aggregate volatility" *mimeo NYU*.

**Stock, J. and Watson, M. (2003)** "Has the business cycle changed? Evidence and Explanations", Federal Reserve Board of Kansas City Symposium, Monetary Policy and Uncertainty.

	1980Q1 - 2005Q2	1992Q1 - 2005Q2	1997Q2 - 2005Q2	2001Q1 - 2005Q2	
GDP	2.4	2.7	2.8	2.3	
population	1.9	2.3	2.3	1.7	
GDP/16+ population	1.9	2.3	2.3	1.7	

Table 1: Annual average growth rates (%)

Chart 1: Volatility of firm-level real sales growth (balanced panel)



Sources: Thomson Financial Datastream and Bank calculations.

# Chart 2: Volatility of firm-level real profits growth (balanced panel)



Sources: Thomson Financial Datastream and Bank calculations.



Chart 3: Volatility of aggregate real sales growth (balanced panel)

Sources: Thomson Financial Datastream and Bank calculations.

# Chart 4: Volatility of aggregate real profits growth (balanced panel)





### Chart 5: Business investment to output ratio

Source: ONS.

## Chart 6: Annual GDP growth



### Chart 7: UK terms of trade

Index ratio of export price deflator to import price deflator



Source: ONS.

**Chart 8: Unemployment rate** 





**Chart 9: The inflation rate of imported finished manufactured goods**