

Charles Bean: The Monetary Policy Committee's policy dilemma

Speech by Mr Charles Bean, Deputy Governor for Monetary Policy of the Bank of England, at the Association of British Insurers' (ABI) Economics and Research Conference, London, 3 March 2011.

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Almost three years ago, in April 2008 when the financial crisis was still in its early days, I gave a speech entitled "Walking the Tightrope"¹. In that speech, I noted that the United Kingdom was faced with an unenviable conjunction of developments. On the one hand, the dislocation in credit markets was weighing on demand. In due course, that could be expected to put downward pressure on inflation. On the other hand, rapid growth in the emerging economies, especially in Asia, had put upward pressure on oil prices, which went on to peak at nearly \$150 a barrel in July of that year. Higher oil prices were squeezing demand too, but were adding to, rather than reducing, inflation. In the face of these twin forces, activity began to fall, but consumer price inflation rose sharply, reaching 5.2% in September.

For the first eight months of that year, the Monetary Policy Committee was faced with setting interest rates so as to balance the risk of downward pressure on inflation from a sharp slowdown in growth associated with the financial crisis, against the risk that the period of high oil prices and elevated inflation would result in a wage-price spiral. With hindsight, of course, we know that it was the first of those risks that materialised, as the demise of Lehman Brothers led to a near-seizure of financial markets and a collapse in global activity, while oil prices plummeted to around \$40 a barrel. But it was by no means obvious during the first part of the 2008 that would be how things panned out.

I recall this period because it bears some similarity to the current conjuncture. Inflation has been running well above our 2% target, in part reflecting external forces, raising the possibility that elevated inflation may persist into the medium term. But the recovery, while underway for more than a year, still faces significant headwinds and has recently shown signs of fragility. Should the recovery prove weak, and significant spare capacity persist, we may yet be faced with inflation running below the target in the medium term. Monetary policy needs to balance those two risks.

My talk today will focus on the sources of the currently elevated inflation, whether it is likely to persist and what policy should seek to do about it. But before turning to those topics, let me say a few words about the headwinds that still confront us on the demand side of the economy.

To begin with, this was not a typical downturn and we should not anticipate a typical recovery. After normal cyclical downturns, economies typically return to the previous trend growth path within a few years. But after financial crises, economies often take much longer to recover. Indeed, the evidence suggests that output typically stays well below a continuation of the previous growth path for many years thereafter. For instance, a study by the IMF² found that across 88 past crises, output per head was, on average about 10% below such a path fully seven years after the onset of the crisis, though there is considerable heterogeneity in the experience of individual countries (Chart 1). Unless crises are also associated with an equivalent impairment of supply capacity, that implies an increase in the margin of unused resources.

¹ <http://www.bankofengland.co.uk/publications/speeches/2008/speech342.pdf>

² IMF *World Economic Outlook*, October 2009.

The primary reason for such a slow recovery is that the unwinding of earlier financial excesses takes time. Moreover, banking crises are also frequently associated with a subsequent deterioration of the public finances, as governments provide support to vulnerable financial institutions and tax revenues drop back. Both these features are, of course, present today in many of the advanced economies, including in the United Kingdom.

UK banks have made considerable progress over the past year in improving their balance sheet positions, but funding costs remain elevated and over the next two years they face the challenge of replacing around £400 billion of maturing wholesale funding. Credit availability to larger corporates has improved significantly, but small and medium-sized enterprises still face difficulties in securing affordable credit. As a result, conditions in the banking sector are likely to continue to act as a brake on the recovery.

As far as the public finances go, the public deficit widened sharply in the wake of the recession, reaching more than 11% of GDP in 2009/10, in large part reflecting the endogenous response of spending and revenues to the downturn in activity. Action would be needed to address such an unsustainable deficit, unless an early resumption of the pre-crisis growth path is expected. As already noted, that is usually not the case after banking crises. And the maintenance of such a large deficit for any length of time runs the risk of the cost of debt finance rising sharply, as we have seen in the countries of the euro-area periphery. But the necessary fiscal consolidation that is now under way is likely to weigh on domestic demand in the coming years. Moreover, a worsening of the sovereign debt problems in the euro-area periphery could also hold back the recovery here, particularly through its impact on the banking systems here and abroad.

Finally, household and business spending, both of which fell sharply in the recession, remain depressed. In part, that reflects subdued growth in households' real incomes since the onset of the crisis. But in addition, it takes time for confidence and spending to recover after such a shock. Some households need to maintain higher savings in order to repay debts taken on before the crisis. And businesses are unlikely to want to expand while capacity is lying idle and there is still much uncertainty about the outlook for demand. But the substantial depreciation of sterling – down nearly 25% since the start of the crisis – should, over time, help to boost the contribution of net exports to UK growth. We have seen some of the fruits of that in the robust performance of manufacturing over the past year.

As I already noted, the economy began to grow again more than a year ago, in the fourth quarter of 2009. And over the first year of the recovery, growth was around the UK's historical average rate. In part, that was on the back of the boost to growth from a slowing in the rate of inventory de-stocking. Given the prospective fiscal consolidation, the maintenance of such growth rates requires a pickup in the contribution of private domestic final demand and in net exports. In our November *Inflation Report*, our central view³, predicated on market interest rates, was for the recovery to be maintained, with the boost from a stimulatory monetary stance and from the past depreciation of sterling offsetting the continuing headwinds from de-leveraging and fiscal consolidation.

Since the November *Report*, we have, of course, had the first estimates from the ONS of growth in the final quarter of last year. They suggest that the economy contracted by 0.6%. In part, that was down to the disruption caused by the snow. But even abstracting from the snow, activity seems to have been broadly flat.

How much should we read into that? One possibility is that the figure is simply erratic or will be revised away in due course. But other indicators – particularly some measures of consumer and business confidence – also weakened during the second half of the year,

³ While some outside commentators regarded that projection as being on the optimistic side, it would still have left output below its pre-crisis level until 2011 Q4 and broadly in-line with the average experience after banking crises recorded by the IMF (Chart 1).

suggesting that something more substantial may have occurred. It could just be a short-lived soft patch – after all, recoveries are rarely smooth. Indeed, that is the judgement incorporated in the projections we published a couple of weeks ago (Chart 2). But it could instead be the harbinger of a more durable slowing – only time will tell.

Let me now turn to the sources of the recent elevated inflation and the chances of inflation remaining above our 2% target into the medium term and beyond. A year ago, in our February 2010 *Report*, our central expectation was that inflation would be around 1% in the first quarter of this year. Yet in January, CPI inflation reached 4% and is likely to move higher in the coming months, in part reflecting the recent surge in oil prices. And taking the period since the beginning of 2007 as a whole, inflation has averaged 3.2%, implying a cumulative excess rise in prices of 5 percentage points relative to the path prescribed by our target. Why has inflation turned out both above the 2% target, and higher than the MPC expected?

There have been primarily three factors at work: strong global price pressures, particularly for energy and other commodities; the nearly 25% depreciation in the sterling effective exchange rate between the onset of the crisis and the end of 2008; and the increase in the standard rate of VAT to 20%. We estimate that the rise in the price of energy, incorporating both direct and indirect effects can, in an arithmetic sense, account for between 3 and 5 percentage points of the rise in consumer prices since the beginning of 2007. The rise in non-fuel import costs, which is mainly attributable to the fall in sterling, can account for between 5 and 7 percentage points. And, while the cut in VAT in 2009 and its subsequent reversal should be broadly neutral, the latest rise in January 2011 should, on the assumption of complete pass-through by suppliers and retailers, have added over 1 percentage point.

Global prices have risen sharply as the international economy – particularly the emerging economies – rebounded from the globally synchronised downturn that followed the collapse of Lehman Brothers. World export prices, weighted by their share in UK imports, rose by over 5% in 2010, one of the fastest calendar-year rises in the past thirty years. The bulk of that rise can be attributed to the direct and indirect effects of higher commodity prices, though some may be indicative of more generalised global inflationary pressures.

What has been driving higher commodity prices and are they likely to continue rising strongly? Most commodities have seen sharp price rises, particularly in the past semester (Chart 3). The rebound in global activity is a common thread, but there are significant differences in supply conditions that are relevant to gauging future prospects.

In the case of agricultural commodities, there have been a number of extreme weather events that have adversely affected supply, including droughts in the Commonwealth of Independent States, South America and China, and excessively wet weather in other parts of Asia, Australia and North America. But barring further weather shocks, larger harvests can be expected to lead prices to fall back. In addition, the present high prices should encourage more planting, adding to the potential downward pressures.

In the case of oil, such supply disruption – at least until the recent events in the Middle East and North Africa – has been less marked and the primary driver has been demand, especially from the emerging economies. Moreover, the income elasticity of energy demand is typically larger in the fast-growing emerging economies than in the advanced economies (Chart 4). As a manifestation of this, China's energy consumption per head in 2009 was half that of the UK level, having been just a fifth a decade earlier. Moreover, demand tends to be relatively price-inelastic, at least in the short run, though over a longer time frame there is surely some scope for increased substitution towards more energy-efficient practices.

The immediate prospects for oil prices are, though, likely to hinge on supply conditions. Oil stocks are at reasonably healthy levels and can be utilised to meet short-term demand. More importantly, OPEC is believed to have spare capacity equal to around 5% of consumption, compared to a long-run average level of nearer 3% (Chart 5). That is more than enough to meet any shortfall resulting from the withdrawal of Libyan supply from the market (around 2%

of total oil production). But if the present political upheavals were to disrupt Saudi Arabian supply, then that could potentially lead to very sharp upward pressure on oil prices.

Prospects for the medium to longer term must depend on how quickly new sources of supply can be brought on stream to meet growing demand. The investment cycle in oil extraction is relatively long, and the current elevated level of prices is in part a reflection of low investment a decade ago. Capital spending since then has been somewhat higher, but the marginal return from investment in existing fields has been declining, while the costs of tapping new sources of supply, such as Canadian oil sands and deep water fields, are relatively high.

The bottom line is that while agricultural prices may fall back a little this year, oil (and also metals) prices are more likely to remain elevated. And there must be a risk that continued turmoil in the Middle East and North Africa results in a substantial oil price spike, present OPEC spare capacity notwithstanding. Looking even further ahead, there may continue to be general upward pressure on the prices of exhaustible resources as demand from the emerging markets continues to grow. As a net commodity importer, such an adverse development in the terms of trade between commodities and final goods and services would represent yet another headwind for the United Kingdom.

The second factor behind the current elevated level of inflation is the substantial depreciation of sterling during the crisis – as noted earlier, down almost a quarter from pre-crisis levels (Chart 6). That fall occurred in two legs: a general drift down over the first year of the crisis, and a second, sharper, fall during the peak of the crisis immediately following the collapse of Lehman Brothers. Since early 2009, the effective exchange rate for sterling has, though, been pretty stable.

Unlike commodity prices – and world prices more generally – over which the United Kingdom has no direct control, an exchange rate represents the relative price of two currencies and is thus affected by monetary policy decisions at home and abroad. The timing of the depreciation, however, and its subsequent relative stability makes it natural to attribute the fall not to changed expectations of monetary policy at home and abroad, but rather to the perceived real impact of the crisis on the UK economy.

Prior to the crisis, the United Kingdom was consistently running a moderate current account deficit. At some stage, that deficit needed to be closed, most probably through a higher national savings rate. The natural counterpart to that would be a real depreciation of sterling in order to improve UK international competitiveness, boosting net exports and leading to a re-balancing of the composition of output away from meeting domestic needs and towards internationally tradable sectors. Moreover, the crisis has probably also resulted in a loss in net foreign earnings by some parts of the financial sector, necessitating an even larger decline in the real value of sterling to re-balance the economy.

In order to get a handle on the likely impact of the depreciation of the exchange rate, we can follow a couple of approaches. One approach is to compare inflation rates here with those in other jurisdictions with stable exchange rates. As the euro area suffered a broadly similar fall in activity to the UK, is similarly exposed to global price shocks, and probably has a similar inflation process, it represents a natural comparator. The goods price inflation differential between the United Kingdom and the euro area is shown by the green line in Chart 7.

A second approach is to compare the inflation rates of services with that of goods in the United Kingdom. As goods are typically more import-intensive than services, the inflation rate of goods should rise relative to that of services after depreciations and *vice versa* (there is a differential between the two on average, because productivity tends to rise faster in the goods sector than in the services sector). The inflation rate of goods (excluding energy) relative to that of services is the blue line in Chart 7 and has the same general profile as the green line. That is somewhat reassuring, since there are factors other than the exchange

rate that could affect one or other of these relative inflation rates, but usually not both together⁴. The fact that the two series move broadly in step suggests that the exchange rate is probably a dominant common driving factor.

If one has an estimate of the relative import intensities, then one can go a bit further and back out a direct estimate of the contribution of the exchange rate to inflation⁵. Input-output data suggests that goods are between two and three times more import intensive than services. The implied contributions of import prices to inflation under these two assumptions are shown in Chart 8, with import prices contributing between 2 and 3 percentage points to inflation in late 2009/early 2010.

Back in 2009, our central view, embodied in successive *Inflation Report* projections, was for inflation to oscillate around the 2% target over the next couple of years, with the upward pressure from sterling's depreciation very broadly offset by the downward pressure from spare capacity and additional volatility induced by the restoration of the crisis-driven cut in VAT. That view was predicated on a considerable body of research, for this and other countries, which suggested that the pass-through of exchange rate movements into consumer prices had fallen in the past two decades⁶. That research pointed to better anchoring of inflation expectations as one possible cause, coupled with an increased tendency to "price to market", meaning that more of exchange rate movements were absorbed in either profit margins or in other costs, rather than being passed on into prices.

In the event, the pass-through seems to have been rather larger, and closer to that seen prior to the Great Moderation. In part, that may reflect the recognition by market participants and businesses that a substantial decline in the real value of sterling was necessary to re balance the economy and the fall was consequently likely to be permanent.

We can bring all this together by asking what has been the net contribution to inflation of higher global prices, the exchange rate depreciation and the movements in VAT over the past few years. A range of estimates is shown by the blue swathe in Chart 9. The green swathe then just shows the corresponding inflation generated from other sources, such as pay and producers' profit margins. It can be seen that this has been running at very low levels, especially over the past year and a half.

It is worth emphasising that this is, in essence, merely an accounting exercise, attributing inflation to various proximate causes. The green swathe does *not* provide an estimate of what inflation would have been if commodity prices, the exchange rate and VAT had all remained at their 2007 levels. If that had been so, consumers would have had more to spend on domestically produced output, pushing up prices. And producers utilising imported inputs would also have had less incentive to bear down on other costs, including wages. So, in the absence of the movements in global prices, sterling and indirect taxes, inflation might have been somewhat higher than indicated by the green swathe. But these effects would have to be quite powerful for inflation to be materially above target in those circumstances.

⁴ For instance, a cyclical divergence between the United Kingdom and the euro area would affect the relative price of goods in the two jurisdictions, but would not affect the price of goods relative to that of services within the United Kingdom. Similarly, a period of unusually rapid productivity growth in manufacturing compared to that of services would affect the price of goods relative to that of services within the United Kingdom, but not goods prices in the United Kingdom relative to those in the euro area.

⁵ See pp.34–35 of our February 2011 *Inflation Report* for details on how to do this.

⁶ See e.g.: J. Campa and L. Goldberg (2002), "Exchange rate pass-through into import prices: a macro or micro phenomenon?", *National Bureau of Economic Research Working Paper no. 8934*; IMF (2006), "How has globalisation affected inflation?", *World Economic Outlook*, Chapter 3; H. Mumtaz, O. Oomen, and J. Wang (2006), "Exchange rate pass-through into UK import prices", *Bank of England Working Paper no. 312*; J. E. Gagnon and J. Ihrig (2004), "Monetary policy and exchange rate pass-through", *International Finance Discussion Papers no. 704*, Board of Governors of the Federal Reserve System.

What are the implications of all this for monetary policy? Our remit from the Chancellor of the Exchequer tells us that our target is 2% inflation “at all times”, but also recognises “that the actual inflation rate will on occasions depart from its target as a result of shocks and disturbances. Attempts to keep inflation at the inflation target in these circumstances may cause undesirable volatility in output.” Economists and monetary policy makers have long understood that there is generally no conflict between stabilising inflation and stabilising output when the economy is subject to adverse demand shocks. But that there is a real choice to be made when there are adverse cost shocks: inflation can be stabilised, but only at the cost of volatility in output.

From a monetary policy perspective, the rise in commodity prices and VAT are both essentially adverse cost shocks. And so, in my view, is the rise in import prices associated with the depreciation in sterling, given that it was not primarily a consequence of monetary policy actions (though the subsequent stance of monetary policy will surely have affected the extent to which that rise in import prices has passed through into consumer prices). The exercise above suggests that together they account for a rise in the level of consumer prices of 9 to 13 percentage points. Since the “excess” inflation relative to the 2% target is a little over 5 percentage points, that suggests that, in practice, we have ended up accommodating around half the impact of the shocks on inflation.

In terms of the outlook, a key issue that the Committee faces in deciding the appropriate stance of policy is the extent to which the current elevated levels of inflation will persist into the medium term. Our most recent projections, conditioned on market interest rates, existing fiscal plans and the futures prices of commodities, are shown in Chart 10. The central view is for inflation is to rise further in the near term as recent commodity price increases pass through, but then to fall back, particularly in 2012 as the rise in VAT to 20% drops out of the twelve-month comparison. It then continues to ease back, reflecting the continuing – though uncertain – drag from the margin of spare capacity in the economy.

A number of factors will determine the rapidity of that return to target. Profit margins have been squeezed during the recession and businesses are likely to want to rebuild these as the recovery proceeds. But the real purchasing power of wages has also been severely squeezed and employees may also seek to recoup some of that. Ultimately this is about how the costs of the recession and the deterioration in the terms of trade associated with higher real import costs are shared out⁷, but during the adjustment phase it may be manifested in temporarily higher wage and price inflation.

Consistently above-target inflation, whatever its cause, may also lead people to believe that it will remain high in the future. That in turn may lead them to set higher wages and prices to compensate and thus to the elevated level of inflation persisting. Measures of inflation expectations for the year ahead, for both households and businesses, have moved upwards, though no more than one would expect given the outlook for inflation (Chart 11). Measures of inflation expectations further ahead, which might be more indicative of a fundamental shift in perceptions of the inflation climate, have though mostly remained well anchored (Chart 12). But this is something we are watching closely, in particular for any signs that higher inflation expectations are leading businesses to raise pay and prices.

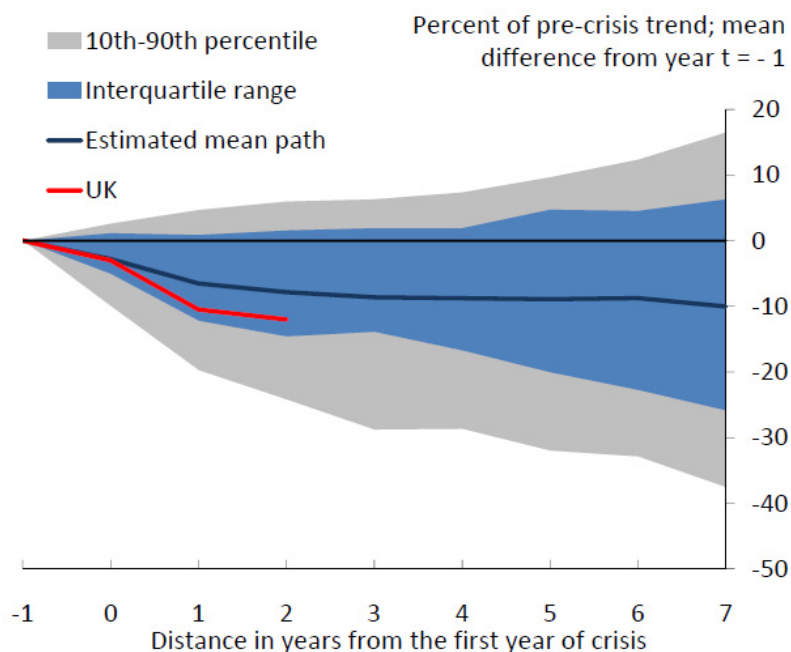
There are elements of all these mechanisms present in our latest projections, but there is a risk that they will turn out to be more powerful than in our central view. And, as noted earlier, there is the risk of further increases in the prices of commodities, especially that of oil. Certainly, my own judgment is that, if anything, inflation may prove a little more persistent next year than presently embodied in our projections.

⁷ This is sometimes referred to as the “battle of the mark-ups” in the unemployment literature; see e.g. P. R. G. Layard, S. J. Nickell and R. Jackman (1991), *Unemployment: Macroeconomic Performance and the Labour Market*.

On its own, that might appear to imply that Bank Rate needs to rise faster than implied by the market yield curve that underpins our projections. But the risk of inflation staying above the target into the medium term needs to be weighed against the downside risk to growth and the prospect of a persistent margin of unused resources in the economy. Allowing inflation to come back gradually towards the target would allow the margin of spare capacity to close more rapidly, and would be in line with our remit that tells us that temporary deviations of inflation from the target are permissible if they help to avoid excessive volatility in output.

I hope my remarks today have given you some insight into the issues that the MPC is presently grappling with. You will be aware that the spread of opinion on the Committee is unusually wide right now. That is in large measure a reflection of the substantial challenges and uncertainties facing the UK economy at the current juncture. Indeed, given the extreme nature of recent events, it would be surprising if the Committee were entirely at one in its assessment of the outlook and its judgement of the appropriate policy response. But the Committee is united in its objective of meeting its inflation mandate in the medium term and playing its part in restoring the economy to a high and stable level of activity. Thank you!

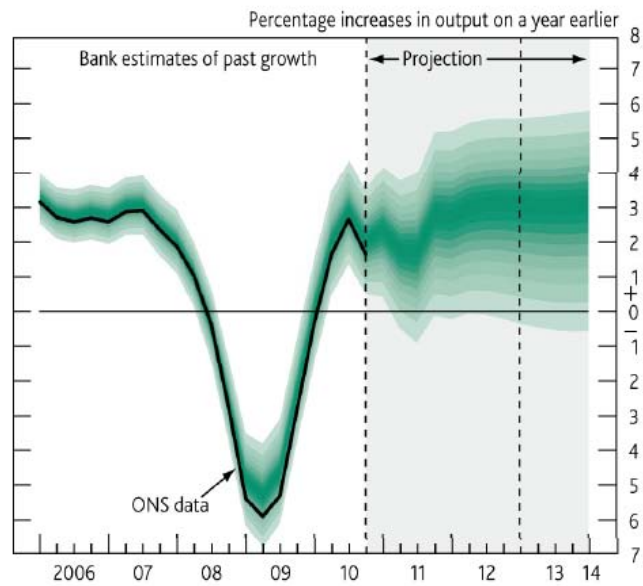
Chart 1: Output after banking crises



Source: IMF and Bank calculations.

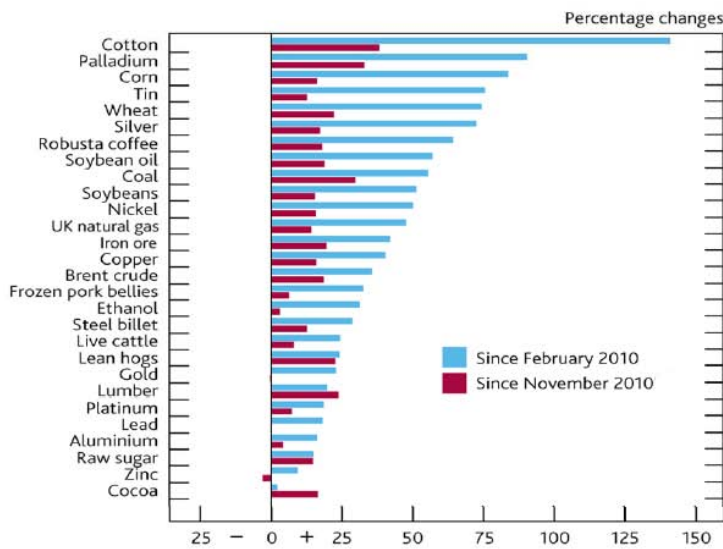
(a) Sample of 88 banking crises. Output per capita relative to trend measured from the 10 years before the crisis to 3 years before.

Chart 2: GDP projection



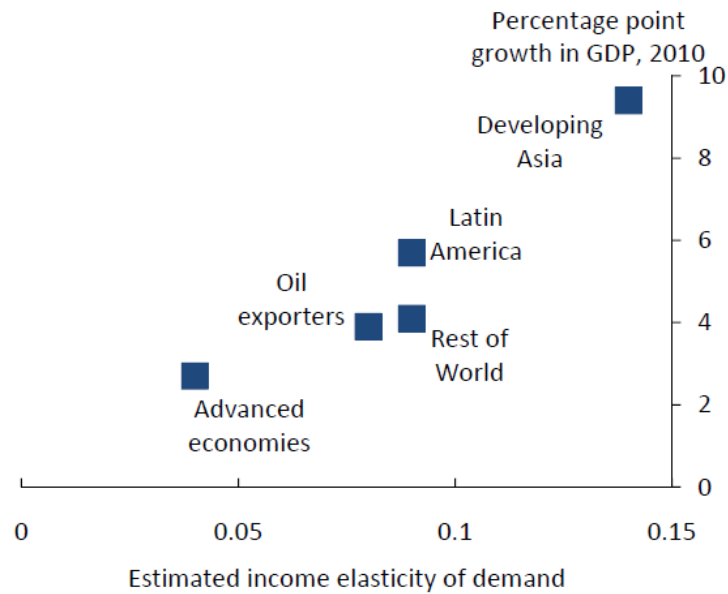
Source: February 2011 *Inflation Report*.

Chart 3: Selected primary commodity prices



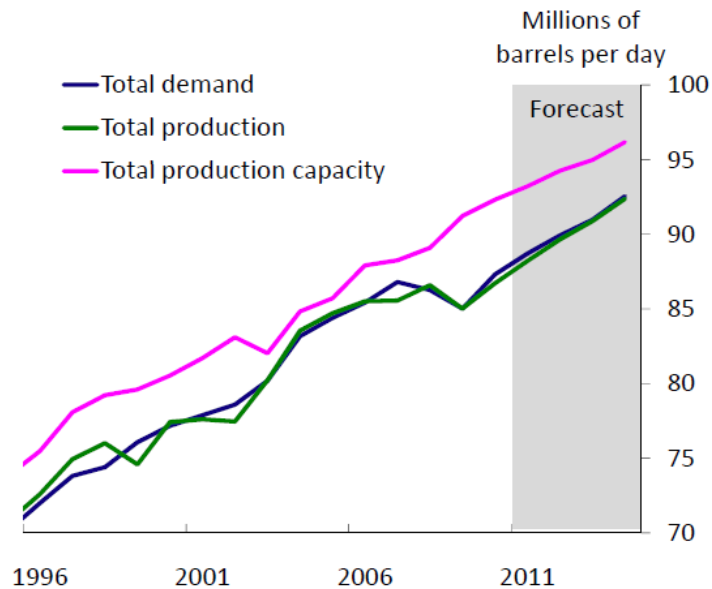
Source: February 2011 *Inflation Report*.

Chart 4: Income elasticity of oil and GDP



Sources: IEA World Energy Outlook, 2006 and IMF.
Income elasticities of demand are short-run estimates based on annual data from 1979 to 2005.

Chart 5: Oil demand and supply



Source: Cambridge Energy Research Associates.

Chart 6: Sterling effective exchange rate

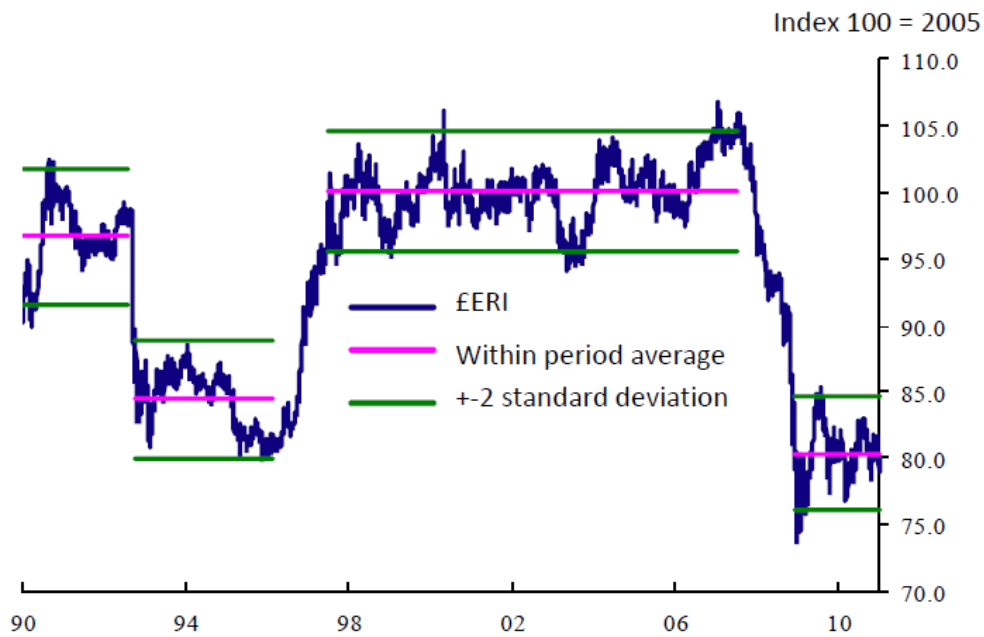


Chart 7: Gauging import price pass-through

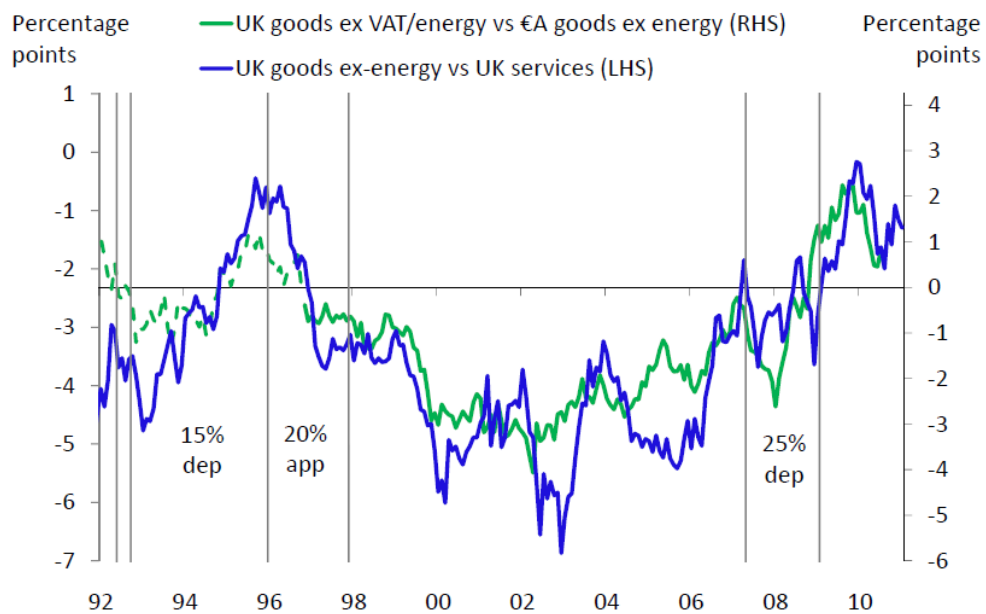
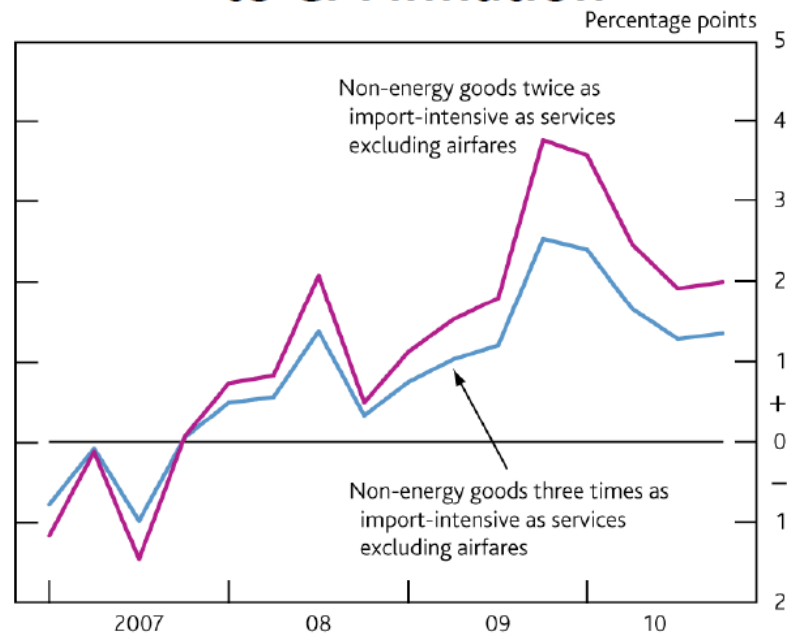
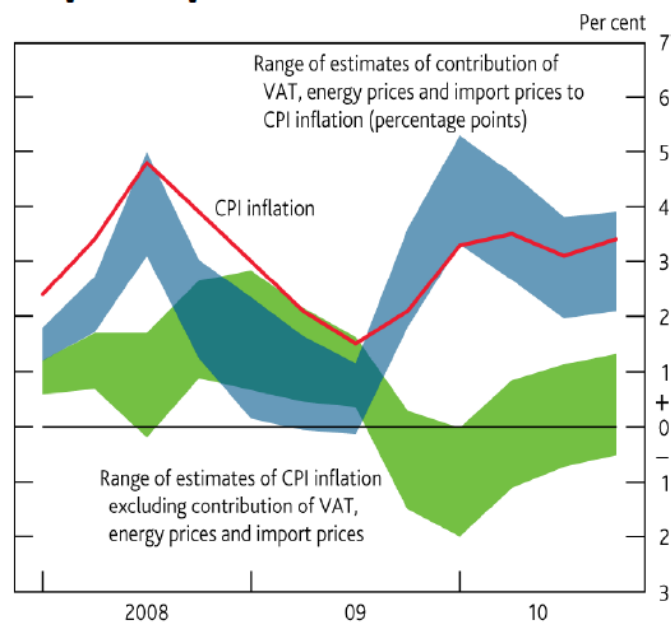


Chart 8: Contribution of import prices to CPI inflation



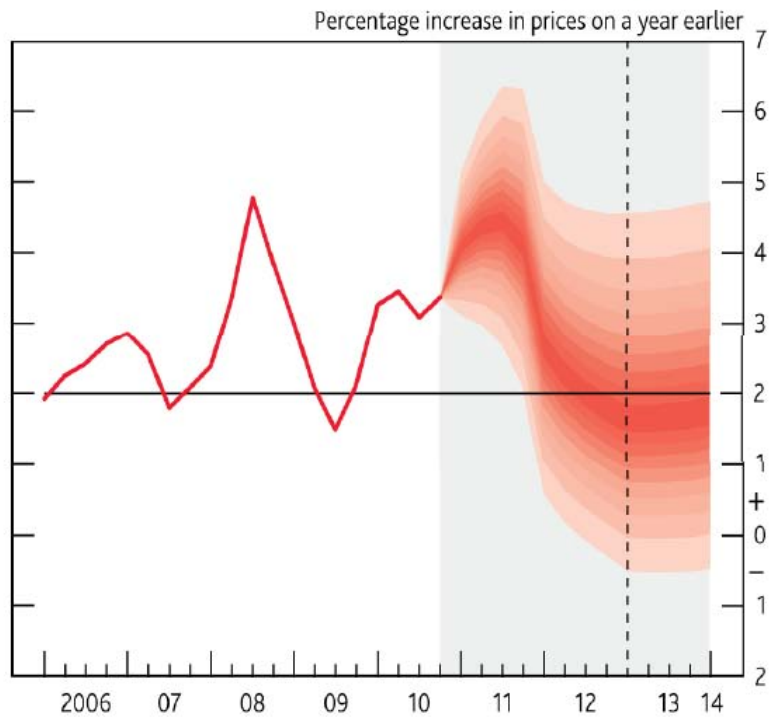
Source: February 2011 *Inflation Report*.

Chart 9: Contribution of VAT, energy and import prices to CPI inflation



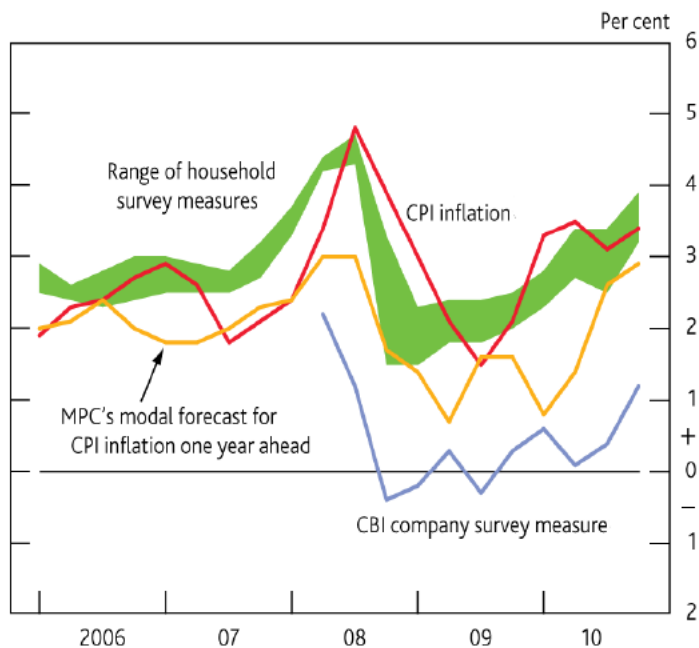
Source: February 2011 *Inflation Report*.

Chart 10: CPI inflation projection



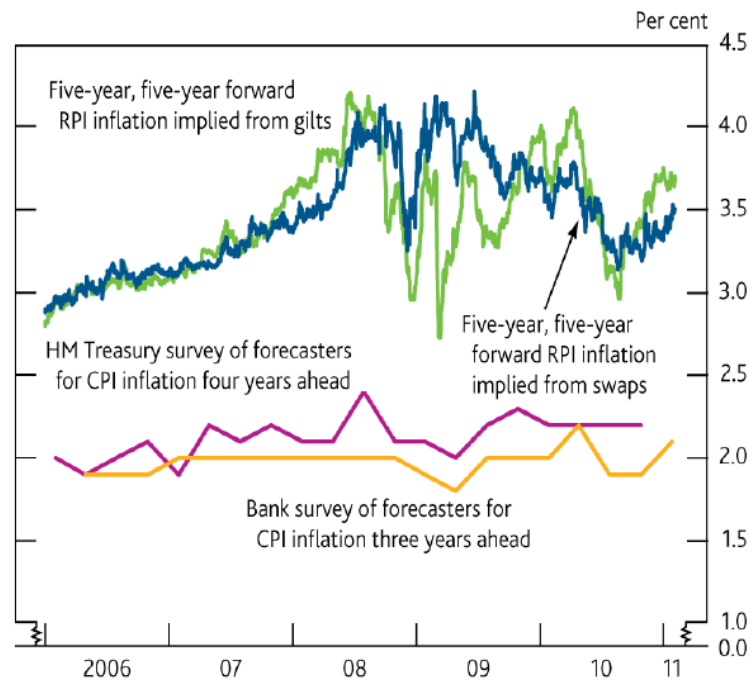
Source: February 2011 *Inflation Report*.

Chart 11: Short-term inflation expectations



Source: February 2011 *Inflation Report*.

Chart 12: Longer-term inflation expectations



Source: February 2011 *Inflation Report*.