4. The economic outlook

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Summary

- The recent performance of the UK economy has been rather alarming. The UK has suffered the largest shortfall in activity relative to its pre-crisis trend of any G7 economy, and has been the slowest of the G20 economies to emerge from recession. At the same time, however, inflation has been stronger than expected.
- A lower pound and reluctance to pass on the temporary cut in the main rate of VAT may account for some of the surprising strength of inflation, but the combination of unexpectedly weak activity and unexpectedly strong inflation suggests a big fall in the UK's capacity to supply goods and services. In addition to reducing the UK economy's productive potential, we believe the financial crisis has also reduced its trend rate of growth.
- If this is true, the economy may not be able to return to the growth rates of close to 3% per annum that it enjoyed between the mid-1990s and 2007 without quite quickly running into the inflation buffers. In our central scenario, we expect GDP growth to average just under 2% per annum between 2010 and 2014 – similar to the average independent forecast, but more subdued than the Treasury's.
- The consumer is likely to bear much of the burden of adjustment, reflecting higher unemployment, more subdued real wages, a rising tax burden and increased debtservice costs. We do not expect the strong housing market recovery seen through the middle of last year to be sustained. Capital expenditure is also likely to be muted, held back by tight credit availability but also reflecting subdued consumer demand and a rather lacklustre improvement in export sales.
- We see the risks around this forecast as evenly balanced, and consider two alternative scenarios to our central case. In an optimistic scenario, to which we attach a 25% probability, the decline in potential GDP is close to the 5% assumed by the Treasury, although we continue to doubt the Treasury's assumption that potential growth is as high as 2¾%. In a pessimistic (indeed, dire) scenario to which we also assign a 25% probability the deterioration in potential GDP would be close to 10%, and the potential growth rate might drop nearer to 1½% per annum. This would be especially testing for the authorities, not just in terms of public finances but because it would also necessitate major structural reforms.

4.1 Introduction

A year ago, most economists – whether in the public or private sector – recognised that the global economy was in recession, and one that would entail outright contractions of national income and rises in unemployment in most countries. Few, however, got the scale of the deterioration anything close to right. The consensus at the start of 2009 was that the G7 group of nations would suffer a drop in real GDP in 2009 of about 1³/₄%. In fact, it now looks as if the decline will have been almost exactly double that amount.

The IFS Green Budget: February 2010



Figure 4.1. 'Lost output' is greater in the UK than in other G7 countries

Notes: Lost output is gauged by comparing actual GDP growth rates in 2008 and 2009 with the trend growth rate over the previous seven years, with the total lost output being the sum of the two years' shortfalls. Sources: Datastream and Barclays Economics Research.

We see a similar pattern for the UK. At end-2008, the average independent forecast was for GDP to fall by 1½% in 2009.¹ Preliminary estimates, published by the Office for National Statistics on 26 January 2010, suggest that the decline was in fact 4.9%. So, real GDP is now estimated to have fallen by a total of 6.1% between the first quarter of 2008 and the third quarter of 2009, albeit with growth resuming in the fourth quarter of 2009.

At first blush, it might seem that the story is one of all countries sliding into recession together as the financial crisis bit, and then together gradually bottoming out and finding their feet again. The reality is rather more subtle than that, however. In particular, there are two features of the UK's growth and inflation performance that warrant investigation:

- The UK has fared worse than most other advanced economies, in terms of the decline in aggregate demand (GDP). The recession is estimated to have lasted six quarters longer than in any other G20 country. Lost output, gauged by comparing actual GDP performance in 2008 and 2009 with the previous trend rate of growth, has been slightly greater for the UK than for any other G7 country, as shown in Figure 4.1. And for a group of 30 OECD countries for which data are available, the UK ranks about two thirds down the league table: it is 19th in terms of the scale of lost output.
- Weaker-than-expected GDP has not been accompanied by weaker-thanexpected inflation. Had aggregate demand simply ended up being disappointingly low, then prices ought to have ended up lower than expected too. But that is not what has happened. In December 2008, the average forecast for inflation during 2009 was 1.2% on the targeted (CPI) measure and 0.9% for 'underlying' retail price inflation (the RPI excluding mortgage interest payments).² Official figures published on 19 January 2010 show out-turns of 2.2% and 2.0% respectively.

In Sections 4.2 and 4.3, we attempt to work out why the decline in activity has been so large, and what might account for the stickiness of UK inflation. We then, in Section 4.4, survey the outlook for demand and, in Section 4.5, lay out our central scenario for GDP

¹ Macroeconomic Prospects Team, *Forecasts for the UK Economy: A Comparison of Independent Forecasts*, HM Treasury, December 2008, <u>http://www.hm-treasury.gov.uk/d/200812forcomp.pdf</u>.

² See *Consensus Forecasts*, published by Consensus Economics Inc, 8 December 2008.

and inflation – i.e. what we deem to be the single most likely outcome, based on the assumption that the fiscal policy laid out in the December 2009 Pre-Budget Report is adhered to. Section 4.5 also provides two alternative scenarios – one relatively optimistic and one pessimistic.

4.2 Demand: why such a sharp contraction?

The academic literature on financial crises suggests that a deeper contraction in demand should be expected if an economy has the following characteristics:³

- Asset prices well above 'fair value' pre-recession.⁴ House prices are especially important if they either affect consumer demand or reflect another factor that does so.⁵ But other asset prices may end up in bubble territory, with associated impacts on confidence and behaviour. Generally speaking, a 'big' bubble bursting has a greater impact than a 'small' one doing so.
- **Credit has a major role in enabling agents to affect demand.** Households may desire to purchase a house, or firms to invest in their businesses, but they will often need to borrow to do so. The easier it is to access credit pre-crisis, the bigger the likely drop in demand once credit supply dries up.
- A vulnerable financial sector. The scale of the required adjustment to a firm's business model post-crisis and hence the scale of retrenchment of credit supply to repair balance sheets depends on a whole host of factors. If financial institutions are highly leveraged, have a heavy reliance on wholesale capital markets for funding and/or hold a lot of securities whose values become impaired or that are difficult to value, credit supply to the economy is likely to be cut back more aggressively.
- **Openness to trade.** One surprise in the recent financial crisis was the way that sources of even very basic credit products, such as trade financing, dried up entirely for a while. As a result, countries with a heavy reliance on trade were harder hit than those more reliant on domestic sources of demand.
- Heavy reliance on manufacturing. As credit tends to be a more important determinant of spending on durable and 'big-ticket' items (such as cars), a leftward shift of the credit supply curve i.e. a shock that restricts the amount of loans on offer will depress demand more substantially for such products, and countries that specialise in production of such goods will find that the market for their products shrinks sharply. Germany and Japan are two prime examples.

Of course, the financial crisis was not the only force driving the recession. Accordingly, there are other factors that affect how well, or how poorly, individual economies did late in 2008 and early in 2009, and which are also affecting their recovery profiles. For example, the speed and scale of policy responses matters in helping to bolster demand.

³ See, for example, C. Reinhart and K. Rogoff, 'The aftermath of financial crises', *American Economic Review*, 2009, 99, 466–472.

⁴ By 'fair value', we mean the level that is warranted by economic fundamentals.

⁵ It is not necessary for them to drive consumption/saving decisions per se (say, via a so-called 'wealth effect'). It may be, for example, that they act as a good proxy for shifting perceptions of permanent income, or growth thereof.

Nevertheless, this list does provide quite a good starting point for telling the story as to why the UK did worse than most. That is because: first, it had experienced a big asset price boom (notably in housing); second, it had witnessed a big (rightward) shift in the supply of credit; third, it has a financial sector that was vulnerable to the processes unleashed by bubbles bursting; and fourth, it is fairly open to trade. The last factor in the list – reliance on manufacturing – turned out to be the one factor that helped the UK relative to many other countries. With such a small manufacturing base, relative to other components of GDP, it suffered less than, say, Germany. On the other hand, its heavy dependence on financial services provided more than enough pain to offset the impact.

A quick run through the UK 'big hit' story ...

In order to illustrate the point, we compare the GDP loss relative to trend with the change in the house-price-to-rent ratio (as a proxy for the size of the housing market bubble) for 15 industrial countries in Figure 4.2.⁶ This shows quite a high correspondence between a run-up in the house-price-to-rent ratio and lost output. The UK experienced the third largest house price rise on this measure and suffered the fifth largest output loss. Clearly, there is by no means a perfect fit. But high and rising house prices relative to rents do seem to matter for subsequent GDP performance. More formally, we can test the statistical significance of the house price 'bubble' variable in explaining the cross-country variation in lost output. It passes the test with flying colours (with a t-value of 4.0).⁷



Figure 4.2. Using pre-crisis house price bubbles to predict cross-country variation in the scale of future demand and output losses

Sources: OECD and Barclays Economics Research.

⁶ For those interested in the methodology used to gauge 'fair value' for house prices, see N. Girouard, M. Kennedy, P. van den Noord and C. André, 'Recent house price developments: the role of fundamentals', OECD Economics Department, Working Paper 475, January 2006,

http://www.olis.oecd.org/olis/2006doc.nsf/LinkTo/NT00000DAE/\$FILE/JT00197301.PDE. We use updates of their analysis, so as to include data close to the onset of the crisis in 2007, as provided in box 2.1 of chapter 2 of the October 2007 edition of the IMF's *World Economic Outlook*.

⁷ Admittedly, one of the reasons for the strong results is Ireland's big housing boom and massive lost output post-crisis. Even if Ireland is dropped from the sample, however, the house price 'bubble' term obtains a large enough t-value for it to contribute to lowering the standard error of the equation.





Next, consider what happens if we take the gaps between the actual and fitted values from this regression – what house prices *cannot* explain in terms of the cross-country variation in lost output during the recent recession – and see if the other factors that we mentioned earlier, such as exposure to trade or characteristics of the mortgage market and financial systems, help explain the remaining discrepancies. Figure 4.3 shows the results obtained if we use a weighted average of the share of GDP accounted for by trade, a gauge of the ease with which households can access housing-related finance and a measure of house prices relative to incomes.⁸

So, Figure 4.2 shows that countries where bubbles were biggest pre-crisis have typically suffered bigger declines in demand during the subsequent busts, *ceteris paribus*. And Figure 4.3 shows that countries more reliant on global trade and where mortgage debt was more prevalent (and, it also turns out, capital gearing and loan-to-income ratios higher) also tended to suffer bigger dents to demand. In other words, countries in which households were more prone to take on debt have tended to suffer the biggest declines in economic activity thus far – supporting the notion that this recession is more a story of balance-sheet adjustment than the more common post-Second-World-War story of policymakers needing to rein in excess demand relative to supply and so subdue inflation.

Having established that the UK was particularly susceptible to the economic and financial shocks that have hit over the past two years, we need to consider how the economy's future activity path might be affected by these events. Central to this assessment is a judgement about whether the fall in activity represents primarily a shock to aggregate

Sources: OECD and Barclays Economics Research.

⁸ The mortgage access index covers such things as average loan-to-value ratios available for first-time buyers, how easy it is for households to withdraw equity, typical refinancing fees and measures of development of secondary markets for loans. The recent run-up in house prices relative to incomes is a gauge both of the demand for new lending and of the amount of equity that people might consider wanting to extract. For further details, see chapter 3 of the April 2008 edition of the IMF's *World Economic Outlook*, and the references therein.

demand, which might be easily reversed by expansionary demand management policies, or whether the economy's capacity to produce has also been damaged. So, this brings us to the issue of the economy's recent inflation performance.

4.3 The growth-inflation trade-off: why so bad?

When growth turns out lower than expected (or GDP drops more than predicted), inflation pressures usually turn out to be less than forecast (or the rate of deflation greater). In 2009, the UK – like the rest of the G7 countries – recorded a much worse growth performance than anyone expected. For, rather than contracting by 1½%, which was the average prediction at end-2008 of more than 40 professional economics teams,⁹ the UK economy is currently estimated to have recorded a 4.9% decline. This 'gap' of around 3 percentage points, although huge, only put the UK about mid-table in terms of (negative) 'surprises' compared with other G7 economies. In Japan, for example, the consensus predicted a drop in GDP of less than 1%, when in fact it now looks to have experienced a contraction of more than 5%, and perhaps even 6%.¹⁰

Turning to inflation surprises – gauged in exactly the same fashion, i.e. as actual out-turns for 2009 minus the forecasts made at the end of 2008 for 2009 – a year ago the UK was expected to run a (targeted CPI) inflation rate of just over 1% on average through the course of 2009. In fact, we now know that the full-year average was 2.2%. So, inflation has surprised on the upside by about 1 percentage point, despite the huge shortfall in demand. This stands in stark contrast to experiences of other G7 countries – all of which have witnessed lower-than-expected inflation going hand in hand with lower-than-expected demand (Figure 4.4).



Figure 4.4. Growth and inflation surprises in 2009

Growth surprises (% points)

Note: Surprises are defined as latest forecasts for 2009 (taken from *Consensus Forecasts*, published by Consensus Economics Inc.) or actual out-turns, if available, minus forecasts made a year earlier. Sources: Consensus Economics Inc. and Barclays Economics Research.

⁹ There are two sources for these forecasts: *Consensus Forecasts*, published by Consensus Economics Inc.; and HM Treasury, *Forecasts for the UK Economy*, available at <u>http://www.hm-treasury.gov.uk/forecasts</u>. Interestingly, the most gloomy of all those surveyed in December 2008 had predictions of close to -2½%. So even the most pessimistic of these economic forecasters were, with the benefit of hindsight, too optimistic.

¹⁰ See Consensus Forecasts, published by Consensus Economics Inc., 11 January 2010.

Might sterling be the culprit?

Sterling's decline looks like an obvious explanation for the UK's unusual inflation surprise. But, actually, it did not really cause such a large surprise last year. At end-2008, the pound was predicted to be worth about 1.5 dollars and 1.2 euros by end-2009 by the same group of professional economists asked to supply their best guesses of growth and inflation. In fact, it ended the year at close to 1.6 and 1.1 respectively – or close to 6% stronger than expected versus the dollar but nearly 7% weaker than expected versus the euro. The fact that the euro area now accounts for more than half of UK trade means that, in trade-weighted terms, the pound has ended up only a shade weaker than expected – and certainly not by enough to justify a near +1ppt inflation surprise.

The pricing block of our UK macro model also casts doubt on the notion that weaker sterling accounts for the inflation surprise. Take, for example, the equation that seeks to explain import prices. From late 2007 and right through 2008, import prices rose at a more subdued rate than the model suggested would happen (Figure 4.5). So there is no real evidence here to indicate why the UK's inflation performance has been so poor in 2009.



Figure 4.5. Import price pressures turning out lower than expected

Sources: Office for National Statistics and Barclays Economics Research.

What about the VAT cut?

Another possibility is that analysts overestimated the extent to which the cut in VAT would be passed through to final prices. We do not know for sure how big analysts thought this effect would be. If one looks at consensus forecasts for inflation in 2009 around the time that the change was announced, however, it was certainly the case that the consensus was taking a big knife to its numbers. In November, for example, the general expectation was that CPI inflation would average 2.5% in 2009. By December, this forecast had been slashed to 1.2%. And it slipped further, to 1.0% by January, where it remained anchored for a number of months.

Some of these inflation forecast reductions were clearly because economists were forced to slash their predictions for economic activity (not just in the UK but globally). But it may well be that they assumed a bigger VAT effect than in fact materialised. Some support for

this idea has been published by the Bank of England in its latest *Inflation Report*, which points out that, whereas in February of last year it had gauged a full pass-through effect of 1.5 percentage points on inflation, the ONS has since estimated that 'the combined impact of the VAT cut and the increase in excise duties implemented at the same time was to reduce CPI inflation by around 0.5 percentage points'¹¹ and that the VAT effect alone was 0.7 percentage points. Reading between the lines, this seems like a strong hint that a fairly substantial proportion of the UK's inflation surprise was because people assumed a bigger impact on prices from the temporary VAT cut than actually materialised.

Supplying an explanation?

If the fall in sterling and limited pass-through of the cut in VAT offer only partial explanations for the inflation surprise, the implication is that the underlying growth– inflation trade-off may have taken a turn for the worse. In our view, the big issue here has to be unit labour costs, i.e. wages adjusted for productivity. The situation for firms during the recession was made especially difficult, from a unit-labour-costs point of view, by their decision to cut employment much less sharply than output (see Figure 4.6) – no doubt reflecting the fact that many underestimated the scale of the decline in demand that was coming, much like the professional economists did. This relatively limited response can be thought of as a form of labour hoarding: the residuals on our employment models suggest that firms are currently employing about 1% more people than they might naturally be expected to, given the level of demand and their costs.

A fall in productivity would matter little if it were offset by a commensurate decrease in the cost of labour. However, that has not materialised. As a consequence, the mirror of the drop in productivity is a surge in unit labour costs, or wages per worker relative to their output (Figure 4.7). With the wage bill comprising close to two-thirds of firms' overall costs, the near-6% rise in unit labour costs will exert huge pressure on them to raise their prices. This rise in what might be called firms' 'core' costs is probably the main reason why UK firms have ended up raising prices last year more than economists expected.



Figure 4.6. Output and employment

¹¹ See page 33 of Bank of England, *Inflation Report*, November 2009, <u>http://www.bankofengland.co.uk/publications/inflationreport/ir09nov.pdf</u>.



Figure 4.7. Productivity and unit labour costs

Source: Office for National Statistics.

The deterioration in profitability from labour hoarding could resolve itself in a number of ways. Demand could pick up strongly, and it may be that firms are banking on this happening. Wage growth could weaken further. Or firms may decide to cut their losses and lay workers off, prompting a further rise in unemployment. The puzzle is that, at present, there is no evidence that any of these is happening. In spite of some rather lacklustre activity indicators and a stabilisation in pay growth, the recent data have shown unemployment to be stable, if not declining. As we discuss in Section 4.4, this is a key issue for the path of household income and therefore consumer demand.

The stickiness of inflation in the face of weaker-than-expected activity implies that the economy's supply capacity has been severely hit. In Chapter 1, we presented evidence that leads us to expect not only that the level of aggregate supply is likely to have fallen, but also that the rate of growth of supply is likely to be lower in the future than it has been in the past. As a result, we expect the economy to grow by just under 2% per annum, on average, during the period 2010 to 2014, i.e. significantly more weakly than the Treasury's PBR forecast. We now consider how this weakness in activity is likely to show up in the components of aggregate demand.

4.4 The outlook for demand

For consumers, the effects of the financial crisis have arguably been most visible in the drying-up of mortgage credit and the consequent collapse in the housing market. The downward shifts in loan-to-value ratios and loan-to-income multiples for first-time buyers after the bubble burst, and the massive rise in lending spreads shown in Figure 4.8, are testament to the severe tightening in credit supply. With most business models in the financial sector now having undergone a fairly fundamental shift (back towards the sort of forms more common before the bubble), we expect credit supply to recover, albeit gradually. But what really matters is demand itself.





Source: Bank of England.

Housing demand is driven partly by the so-called 'user cost of housing',¹² which comprises: the opportunity cost of not investing money spent on housing elsewhere (or debt-service burden if the purchase is financed via a mortgage); maintenance costs involved with house purchase (including depreciation of the building, insurance etc.); property taxes (including stamp duty and council tax); and, often most important of all, the capital gains or losses that the purchaser expects. Regarding the last factor, it appears that potential buyers tend to extrapolate recent house price changes when trying to assess future prospects for gains or losses on their potential purchases.¹³ A key issue, therefore, is whether the housing market is going to remain in the doldrums, or stage a sustained recovery.

In many countries, it certainly seems that the process of house prices returning close to economic fundamentals has now largely run its course. (In the United States, for example, our models show house prices a little below fair value.) But in the UK, a similar analysis suggests that, during 2009, house prices started to recover *before* they had fallen back to fair value. So we have to ask ourselves: might this be a false dawn?

Might UK house prices flop back again?

Most shifts in the demand for housing seem to translate into changes in house prices rather than triggering an increase in the supply of housing.¹⁴ Our model of house prices (like many others) makes this assumption and, as Figure 4.9 shows, it does a pretty good job in tracking movements in real UK house prices *ex post.*¹⁵ Every now and again,

¹² See, for example, A. Castle and P. Newland, *Shifting down a Gear*, Lehman Brothers Economics Research Report, November 2007.

¹³ A good demonstration of this is K. Case and R. Shiller, 'The behaviour of home buyers in boom and post boom markets', *New England Economic Review*, Federal Reserve Bank of Boston, November 1988.

¹⁴ Of course, this varies from country to country. In a place such as the UK, or even more so Hong Kong, the supply of new housing is especially inelastic. It is rather more sensitive to changes in price in countries where the density of population is lower, such as France or much of the US.

¹⁵ Or, to put it more formally, such models generally have a fairly low standard error. Our UK specification, the dependent variable for which is quarter-on-quarter changes in real house prices, has a standard error of the equation of 2½%.



Figure 4.9. Actual and fitted values for real UK house prices

Notes: We use the Communities and Local Government measure of house prices as the dependent variable, with it being deflated using the CPI. For full details of the model specification, please contact the authors. Sources: Department of Communities and Local Government, Office for National Statistics and Barclays Economics Research.

however, actual values depart from their predicted values by an appreciable amount – requiring us to assess whether the model is still a good representation of reality or, by contrast, 'breaking down' (and thus inadequate for the purposes of forecasting). In the second quarter of 2009, for example, real house prices rose about 2 percentage points faster than the model suggested that they ought. And in the third quarter, they did so by more than 5 percentage points. Thus we need to consider possible explanations.

One possibility is that the financial crisis is permanently shifting investors' attitudes, making property seem more attractive than formerly. (For example, it may be that, as investors have seen some financial investments that they deemed 'safe' suffer much greater declines in value during the crisis than they ever thought possible, they are now looking to place more of their assets in 'bricks and mortar'. Moreover, cash is offering very low yields.) Our own surveys of several thousand high-net-worth investors do indicate a gradual shift in attitudes towards property as an investment class, with UK-based investors expecting to raise the share of their portfolios devoted to both residential and commercial property by about 3 percentage points over the next two years.¹⁶ However, this is fairly small beer when set against the 28% share that property already accounts for in their portfolios. More importantly, the increase in planned demand for property from domestic investors is no greater in the UK than that planned elsewhere in the world. And our house price models for other countries have *not* all suddenly shown big residuals: it seems to be a UK-only phenomenon.

A second possibility is that the fall in sterling has spurred foreign buyers to enter the market. This notion is supported by the fact that the top end of the London market has

¹⁶ For full details, see volume 10 of *Barclays Wealth Insights Reports*, 'Prospects for property: on solid foundations?', December 2009.

shown a stronger turnaround than elsewhere.¹⁷ Prices outside London have not yet really 'bounced back' in the way that the top end has. Rather, they appear to have found a floor, along which they may well now be bouncing. Looking ahead, the fundamental drivers of housing demand – in particular, incomes and interest rates, to which we turn next – do not look set to sustain additions to demand of any substance.

There is thus likely to be a limit to the extent to which these forces can continue to support the market, unless other economic fundamentals – such as rising household incomes – kick in. This, together with the fact that the outlook for interest rates is heavily skewed to the upside, suggests that the strong momentum in house prices seen through the middle of last year is unlikely to last. Instead, we expect house prices to soon start to stagnate, if not begin to fall back again.

Household incomes and interest rates

If we are right about credit and house prices not entering another boom period, then noncredit, non-housing factors will determine the path of consumer spending. The most important is households' real disposable income.

The main drivers of households' pre-tax incomes are employment and wages. Our model for private sector employment suggests that, at the end of the third quarter of 2009, firms held employment around 1% higher relative to what they would normally do in such circumstances, as shown in Figure 4.10 – what might be called 'labour hoarding'.

Looking ahead, the model actually projects a mini 'double-dip' in employment during 2010 and 2011. The reason for this is that although wages have been a little more responsive than usual in this downturn (requiring fewer job losses), the collapse in demand has translated into a big drop in productivity, and a resultant surge in unit labour costs. The model predicts that this will be unwound by further job cuts, as well as by further downward pressure on pay. Of course, an alternative scenario would be one in



Figure 4.10. Actual and fitted values for employment

Sources: Office for National Statistics and Barclays Economics Research.

¹⁷ See, for example, Savills Research, *Residential Property Focus*, November 2009. It reports rises in what it terms the prime central and south-west London markets of 8% and 15% respectively during the second and third quarters of last year.



Figure 4.11. Actual and fitted values for real wages

Note: Real wages are defined here using the *actual*, as opposed to *expected*, changes in prices (subtracted from the rate of change of nominal average earnings). Sources: Office for National Statistics and Barclays Economics Research.

which employment continues to hold up more than the model predicts it will, but pay comes in a lot lower (as an offset). That combination would, however, entail much the same profile for aggregate household incomes.

Average earnings – i.e. nominal wages paid per worker – are the second key determinant of households' incomes. As Figure 4.11 demonstrates, the gradual slowdown in recent years in the rate of increase of real wages – i.e. the nominal rate of change of average earnings (excluding bonuses) minus the actual 12-month rate of change of consumer prices – has been almost spot on what our model predicted, reflecting the normal impact on pay bargaining that follows a rise in unemployment. We expect real wages to decelerate during much, if not all, of 2010. Indeed, the risks to our forecast of a near-½% decline in real wages in 2010 look skewed to the downside. Only in 2011 does it look reasonable to expect real wages to start eking out small increases again.

So, expect only soggy consumption at best?

Although models of consumer demand generally do a good job in tracking the data, there are exceptions, when out-turns differ significantly from the model predictions. The past year has been one such period (Figure 4.12), with the drop in spending during the fourth quarter of 2008 and the first half of 2009 *much* bigger than seemed likely, given the usual drivers of consumer spending (such as incomes, interest rates and wealth). This pattern is evident right across the developed world. In retrospect, it does not seem so surprising that people decided to hold back from spending, and instead increased their precautionary saving, as they watched the financial system imploding and policymakers struggling to find solutions. Under these circumstances, measures of risk appetite – usually used to gauge the willingness of investors to move into 'riskier' asset classes – seem to be able to help explain (statistically speaking) households' unusual 'extra' saving as the crisis struck and then deepened in intensity.¹⁸

¹⁸ For more on how this could be done, see M. Dicks, 'Some thoughts regarding current financial market conditions and their implications, if any, for policymakers', paper presented to the ECB Watchers' Conference, September 2007, <u>http://www.ifk-cfs.de/index.php?id=1230&L=0</u>.



Figure 4.12. Actual and fitted values for real consumers' expenditure

Sources: Office for National Statistics and Barclays Economics Research.

Where the UK story appears a little different, however, is in the pattern that has emerged during the course of 2009. As market participants began to believe that policymakers would avoid a 'Great Depression Mark II', so risk appetite began to recover. And so, it appears, households' animal spirits revived a little too and households in the United States, continental Europe and Japan went back to more 'normal' patterns of behaviour. In the UK, by contrast, even in the third quarter of 2009 it would seem that households were saving an extra 1% or so of their incomes, compared with what our models suggested was reasonable to expect (Figure 4.13).





Note: The residuals are the differences between actual quarterly changes in consumers' expenditure and the predicted values from our macro model. (So, when the bars are negative, consumers saved more of their incomes than our model predicted they would.) The fitted line shows the line of best fit obtained when using our Risk Appetite Index and changes in it to help explain, statistically speaking, the residuals. Source: Barclays Economics Research.

What this means, going ahead, is that there is greater-than-usual uncertainty concerning the outlook for consumer spending. If we trust our models entirely, letting the fairly miserable profiles for income, wealth and interest rates translate into a projection for consumer spending assuming 'normal' animal spirits, and no 'excess saving', the profile for consumption is for it to expand by about 1% in volume terms in 2010, before embarking on a 'crawl' higher – to average about 1³/₄% per annum during 2011 and 2012.

This is rather weaker than the Treasury's forecasts in the December 2009 PBR, of at least 234% growth in household consumption in both 2011 and 2012.

If households were to decide that 'more-than-normal' saving continued to be warranted, then further falls in spending during 2010 and/or 2011 would be a real possibility – and any meaningful expansion in consumer spending might well be put off to 2012. On the other hand, if the UK 'catches up' with what seems to be happening elsewhere, and animal spirits revive more in line with how they have done in economies such as the US, then there is a chance that the saving ratio drops back more smartly than our models predict it will, and consumption records stronger rates of expansion earlier in the recovery – perhaps even as much as 2% this year and 3% next. This would be rather closer to the Treasury's forecast profile contained in the PBR.

Companies and export markets: a ray of sunshine?

Although much of the focus during the credit crunch has been on consumer (in particular, mortgage) debt, firms also rely heavily on credit to help them grow. And the drop in the provision of bank loans to companies has gone hand in hand with a devastating drop in fixed investment (Figure 4.14). So, the corporate, and especially the investment, story is crucial regarding the path for aggregate demand during the pick-up – i.e. helping to determine whether it is V-shaped, W-shaped or perhaps even 'square root-shaped' (i.e. $\sqrt{}$). Investment is also one of the key determinants of the scale of the damage done to aggregate supply. A failure to get firms investing again, or an only feeble acceleration, would risk a much bigger long-term, structural, cost to the economy.



Figure 4.14. Real credit to businesses and fixed investment

Note: The measure of credit used here is M4 lending to the non-financial sector. Sources: Office for National Statistics and Bank of England.

The IFS Green Budget: February 2010

Some sort of revival in fixed capital formation ought to happen soon, provided that firms have the confidence to expand and provided that banks, or capital markets, are willing to lend to them. The corporate revival may come about via a pick-up in exports, helped by sterling's depreciation. Here, however, the drop in the currency does not appear to have fed through to an improvement in the UK's competitiveness as fast as normally happens. One reason why is that exporters appear to have chosen not to pass on all of the benefits to their overseas customers, whereas those importing goods have more than passed on the rise in the sterling cost of imports to UK consumers.

Recent CBI research helps explain why this might be happening. For its survey data suggest that some firms – especially smaller ones – are credit constrained, and have had to boost margins given the absence of other funds to help support them through a very difficult period.¹⁹ Only once, back in the mid-1970s, have firms responded so negatively concerning their recourse to credit (Figure 4.15).



Figure 4.15. Credit/finance constraints in UK manufacturing

Notes: The survey data show the percentage of respondents who report being constrained in their access to credit. The survey is of small and medium-sized enterprises.

Source: Confederation of British Industry, SME Trends Survey, July 2009.

Looking ahead, we suspect that, as credit conditions gradually return to normal, firms will revert to more typical price-setting. So, competitiveness should gradually improve too. Even taking into account the shift in pricing behaviour, it is clear that exporters are not doing as well as they might normally be expected to do in circumstances such as those prevailing today. Figure 4.16 illustrates, showing how, for the best part of three years, the volume of exports has been falling shy of what a typical macro model suggests.

These sorts of models are somewhat simplistic, weighting together other countries' imports to produce a proxy for overseas demand and allowing shifts in the real effective exchange rate to influence market share. There is a host of other potential explanations for the UK's poor performance of late, beyond simple data problems (such as the fact that preliminary estimates often get revised out of all recognition). One may be that the relative quality of the goods and services offered for export by UK firms is in decline.

¹⁹ They may too have had to bite into working capital to help get them through especially tough markets, having lacked the usual recourse to loans in 2008 and 2009. We are grateful to lan McCafferty for this argument, and for providing us with supporting evidence.



Figure 4.16. Exports off a cliff, but coming back

Sources: Office for National Statistics and Barclays Economics Research.

Another is that the sorts of exports that the UK produces just happen to be the 'wrong' sorts of goods and services, for which the elasticity of demand is low in countries where demand is rising. A third potential explanation is a more deep-rooted version of the CBI story, with exporters perhaps less able to fund themselves and find the right sort of workers, at the right sort of prices, to compete successfully in world markets. As a result, they may be losing market share over and above what the typical macro model suggests ought to be happening.

Whatever the source of the UK's worse-than-expected export performance, we assume that export growth will gradually return to the sorts of rates predicted by our models. Accordingly, exports are one of the main drivers of the admittedly fairly feeble recovery that we are predicting for the period running from 2010 to 2015, with near-5% volume increases pencilled in to our central scenario each year. Although there are clearly downward risks to this projection, given that recent disappointments might be the beginning of a trend, it is also worth pointing out that the financial crisis appears to have crushed global trade far more sharply than in past downturns. So, there is a reasonable chance that it will also bounce back more firmly than most people are forecasting. Certainly, the Netherlands Bureau for Economic Policy Analysis's monthly trade data suggest that global trade volumes are staging a stellar come-back, with the annualised rate of increase of trade volumes having risen at two-and-a-half times the pre-crisis trend rate since May 2009 (Figure 4.17).

When it comes to fixed investment, making forecasts is even more difficult than usual, thanks to an astonishing crash in fixed capital formation last year, not just in absolute terms but relative to what a typical econometric model would suggest (Figure 4.18). Most such models include an 'accelerator' mechanism, whereby the rate of change of investment is highly dependent on that for domestic consumption. (Or, put more simply, firms will only invest if there is perceived to be a rising demand for their products.) On top of that, they generally include a term in the amount of spare capacity currently available. And they usually permit a role for the cost of capital, i.e. interest rates.

Figure 4.17. Global trade



Notes: These data run up until end-November 2009. And the trough of the global trade series appears to have been in May. Hence the post-crisis trend is based on a log-linear trend drawn through just six data points. Sources: Netherlands Bureau for Economic Policy Analysis and Barclays Economics Research.



Figure 4.18. Business fixed investment

Sources: Office for National Statistics and Barclays Economics Research.

What these equations fail to incorporate – ours included – is a specific gauge of the ease with which credit can be accessed as well as a 'risk appetite/animal spirits' indicator such as the one we used to help rescue the consumption function. Almost for sure, a big part of the investment crunch story is a credit crunch one. So, the good news, looking ahead, is that, provided that the financial sector really is now on the mend in a sustainable fashion, investment ought to come back, and start soon on some sort of recovery.

Having said that, following such a deep recession – and especially one that has been 'short and sharp' – many firms are likely to have some spare capacity at hand, which can be redeployed as demand recovers. (We may be gloomy – at least relative to the Treasury – about the hit to aggregate supply, but we do still believe that the output gap is quite large, at perhaps $3\frac{1}{2}$ % of potential GDP.) Of course, there is also the issue of whether or not the currently unused plant, machinery and buildings are of the right type and in the right

place. (If, for example, the currently unused capacity is in the financial sector, but the improved demand is for, say, cars, the resulting 'mismatch' means that investment will be necessary sooner than it would otherwise be.)

All this means that the relatively gloomy picture that we have drawn for the UK's potential GDP, or aggregate supply, in Chapter 1 – in which we assumed that a lot of fixed capital is written off rather more quickly than was expected when the investments were first made – has a 'silver lining'. If there is less spare capacity in the economy than the Treasury is assuming, then at least growth might resume more quickly than it would otherwise do.²⁰ In other words, in an upswing, investment may pick up more quickly than generally expected, albeit still at sluggish rates of around 3% in 2010 and 6% in 2011. Thereafter, we suspect that the limited momentum behind consumer and export demand will result in investment volumes rising at only about a 2½% per annum annualised rate, consistent with the economy's sluggish trend growth rate.

In making this projection, we assume that access to credit gradually improves, so that firms are not constrained from expanding their businesses by financial limitations, or by needing to fund investment from retained profits or running down inventories. We also assume that the rise in long-term government yields (and hence swap rates) is fairly limited, thus leading to only a moderate rise in corporate borrowing costs (or 'the cost of capital'). Given the parlous state of public finances, however, there must be a risk that this is an overly optimistic assumption. (For further details, see Box 1.2 in Chapter 1.)

Looking ahead, we expect the recovery in demand, both at home and overseas, to lead to less employment growth than usual. (We see existing workers having to work harder, and/or longer, to meet raised demand, rather than firms immediately starting to boost employment.) This will help lower the pressure of high, and rising, unit labour costs. Accordingly, we suspect that our employment model will go back to tracking events more closely than it has done during 2009. And the wage and price equations should continue to exhibit the fairly impressive performance that they registered last year. Following a rise in consumer price inflation to around $3\frac{1}{2}\%$ at the start of 2010, brought about by the temporary cut to the main rate of VAT coming to an end – and which should add something close to 1% to the price level (as detailed in Chapter 3), the targeted rate of inflation will probably be back close to 2% in the summer and perhaps a little under 1% during 2011.

Looking further out, price pressures are likely to remain fairly muted, with the CPI running close to the 2% target a few years down the line. This would be consistent with the Monetary Policy Committee gradually exiting its quantitative easing (QE) programme, and with the MPC beginning to raise official rates, tentatively, during the second half of 2010. We expect official rates to be getting close to a neutral level, of around 5%, by late 2013 or early 2014.

Government demand

Although the focus of the fiscal policy debate has been on how the public finance adjustment is likely to weaken demand, government spending is set to support growth in the first half of 2010, albeit only modestly. The degree to which it detracts from growth thereafter seems likely to depend on the outcome of the general election, as the

²⁰ Of course, the silver lining is illusory. We would be better off if capital did not need to be written off in the first place, and we could use it instead to help raise living standards.

opposition Conservative Party has made a commitment to reduce the public deficit more quickly than the current government's plans. With the election expected in May, this issue is unlikely to be germane for the growth outlook until the second half of 2010 at the earliest. Nevertheless, regardless of the election outcome, the hole left by government demand is likely to be significant. Over the past 10 years, government consumption has contributed on average 0.5 percentage points to annual GDP growth. Even on the Treasury forecasts, this is set to drop to -0.5 percentage points in two years' time. This 1 percentage point cut in demand is a key reason to expect growth over the next few years to be lacklustre.

4.5 Forecast scenarios

The central scenario

The combination of pain for the consumer and for government, along with a non-financial corporate sector that is returning to profitability and reorienting towards external markets, suggests a rather more subdued increase in GDP than the Treasury pencilled into its December 2009 PBR. Taking the five years from 2010 to 2014 together, the PBR

% changes year on	2008	2000	2010	2011	2012	2012	2014	2015
year, except where noted	2000	2009	2010	2011	2012	2013	2014	2013
Aggregate demand								
Real GDP	0.5	-4.9	1.8	2.3	1.4	1.5	1.7	1.8
Personal consumption	0.9	-3.2	1.1	2.1	1.3	1.9	1.7	1.8
Fixed investment	1.0	-13.2	2.8	5.9	4.1	2.1	2.0	1.7
Govt consumption	2.6	2.0	0.3	-0.8	-0.3	0.6	0.7	0.8
Exports	1.1	-11.0	5.6	5.3	4.7	4.6	4.3	4.2
Imports	-0.5	-12.5	7.2	4.5	4.2	4.9	3.6	3.4
Inflation drivers								
Unemployment rate (%)	5.9	7.8	8.3	8.8	9.2	9.6	9.8	9.8
Employment	0.6	-1.6	-0.2	-0.2	-0.2	-0.2	0.1	0.3
Unit wage costs	4.0	5.2	0.0	1.4	3.4	3.7	3.2	2.6
Wages	3.7	2.2	2.2	3.9	5.1	5.3	4.8	4.1
Productivity	-0.3	-2.9	2.2	2.4	1.7	1.6	1.6	1.5
Consumer prices (CPI)	3.6	2.1	2.1	1.5	2.0	2.0	2.0	2.0
Consumer prices (RPI)	4.0	-0.6	2.6	2.3	2.9	2.8	2.8	2.7
Financial markets								
Official rates (%)	2.0	0.5	0.8	2.3	3.5	4.5	5.8	6.5
10-year bond yields (%)	4.1	3.7	4.8	5.5	6.0	6.4	6.7	6.9
Aggregate supply								
Potential GDP	1.1	-0.1	-0.1	0.8	1.4	1.6	1.7	1.8
Output gap (% of GDP)	1.5	-3.5	-1.6	-0.2	-0.1	0.0	0.0	0.0
Capital services	1.6	-0.8	-0.9	0.3	1.2	1.8	2.1	2.4
Labour	-0.2	-0.4	-0.6	-0.1	0.1	0.1	0.1	0.2
TFP	0.8	0.5	0.6	0.8	1.0	1.0	1.0	0.9

Table 4.1. Barclays 'central case' scenario

Note: Financial market variables are end-of-period values. All data and forecasts are for calendar years. Source: Barclays Economics Research. assumed that the volume of GDP would rise at an average annualised rate of 3%, with a cumulative increase in total output of some 16%. Our own central scenario, by contrast, looks for an average annual growth rate of just under 2% per annum, leaving our 2015 GDP projection nearly 7% below the Treasury's forecast. Table 4.1 provides further details of our projections.

Lest this seem an extraordinarily pessimistic position to adopt, it is worth pointing out that our projection is actually very close to what the average of professional forecasters expects, according to a recent survey.²¹ The general expectation is for GDP to rise at a little below 2% per annum rate between 2010 and 2014, resulting in an overall expansion over this period that is just ½ of a percentage point more than we have pencilled in, but 6¼ percentage points less than the PBR predicted.²²

Two alternative scenarios

Given the sheer scale of the surprises that have taken place in recent years, it is especially important to remain humble about one's ability to predict future macroeconomic developments. The confidence levels attached to any forecast should be thought of as low. And confidence intervals, around one's modal forecast, should be wide.

One way of illustrating how things might develop differently from our central scenario is to use stochastic simulations to help quantify the uncertainty involved. Basically, this amounts to sampling past residuals from the various equations in our models as a way of gauging our ignorance of the true drivers of the various processes at work. (A 'poor' model, with 'big' residuals, will therefore naturally provide a forecast around which the fan chart showing probabilities of different outcomes will have wide bands. A 'good' one, with 'small' residuals, will, by contrast, have narrow bands.)

The only problem with this process is that the recent performance of models has deteriorated relative to their long-run record in tracking events. So, stochastic simulations based on a fairly long run of residuals will probably understate the true uncertainty involved in forecasting at a time like this. We prefer to illustrate the wide range of possible outcomes by constructing, on the basis of deterministic simulations, two alternative scenarios to our central one, each of which we feel has a roughly 25% probability of becoming the eventual outcome.

In our 'optimistic' scenario, developments turn out a lot closer to the Treasury projections contained in the December 2009 PBR. In particular, we would emphasise:

• The long-term damage to the economy's potential is much less. Our central scenario assumes that productive potential falls by 7½% over five years and that potential GDP grows at 1¾% a year thereafter (see Chapter 1). In the December 2009 PBR, the Treasury assumed (as it did in the previous Budget) a 5% hit to potential GDP over three years, with trend growth unaffected at 2¾% a year. Our optimistic scenario is closer to the Treasury's, with the same fall in the level of potential GDP, although even in this scenario we only assume a trend growth rate of 2¼% (compared with the 2½% assumed by HMT for public finance forecasts).

²¹ For details of these long-run forecasts, see *Consensus Forecasts Global Outlook: 2009–2019*, published by Consensus Forecasts Inc., October 2009.

²² Interestingly, since October, the consensus has lowered its short-term GDP forecast a little. So the gap between our own numbers and the consensus's long-term forecasts is probably, in reality, even smaller than these figures suggest.

- Actual GDP manages a bit more of a surge. There is a little more spare capacity in the economy in our optimistic scenario than in our central one, which leaves more room for strong GDP growth during the recovery phase say, a year or so of 3%+ real GDP expansion. Growth may also turn out stronger than in our central scenario if the three years during which exports have turned out softer than our models predicted do not mark a permanent deterioration in the UK's relative performance but instead hold out the prospect of a rebound as UK exporters try harder to compete.
- Inflation not very different. Given that we assume that the Bank of England's MPC, on average, does its job well, we would not expect inflation to be very different in a 'good' scenario compared with our main, 'central', one, especially a year or two down the line. We expect inflation to average close to 2%, except in a world in which the inflation target gets changed or in which the Bank loses its independence, neither of which we judge to be at all likely.

Table 4.2 illustrates in more detail how things might evolve in such a scenario.

% changes year on	2008	2009	2010	2011	2012	2013	2014	2015
year, except where								
noted								
Aggregate demand								
Real GDP	0.5	-4.9	2.2	3.0	2.4	2.2	2.3	2.2
Personal consumption	0.9	-3.2	2.1	3.5	3.2	3.3	2.9	2.7
Fixed investment	1.0	-13.2	2.6	6.0	5.3	3.2	2.5	2.2
Govt consumption	2.6	2.0	0.3	-0.8	-0.3	0.6	0.7	0.8
Exports	1.1	-11.0	5.6	5.4	4.9	4.6	4.3	4.1
Imports	-0.5	-12.5	8.0	5.6	5.8	6.0	4.4	3.9
Inflation drivers								
Unemployment rate (%)	5.9	7.8	8.3	8.6	9.0	9.2	9.3	9.3
Employment	0.6	-1.6	-0.1	0.0	0.0	0.1	0.3	0.4
Unit wage costs	4.0	5.2	-0.4	1.0	2.9	3.8	3.7	3.4
Wages	3.7	2.2	2.2	4.0	5.4	6.0	5.8	5.2
Productivity	-0.3	-2.9	2.6	3.0	2.4	2.1	2.0	1.8
Consumer prices (CPI)	3.6	2.1	1.9	1.1	1.7	2.0	2.0	2.0
Consumer prices (RPI)	4.0	-0.6	2.4	1.9	2.7	2.8	2.8	2.8
Financial markets								
Official rates (%)	2.0	0.5	0.8	2.3	3.5	4.5	5.8	6.5
10-year bond yields (%)	4.1	3.6	4.8	5.4	6.0	6.3	6.7	6.9

Table 4.2. Barclays 'optimistic' scenario

Note: Financial market variables are end-of-period values. All data and forecasts are for calendar years. Source: Barclays Economics Research.

Last of all, we consider a 'pessimistic' scenario that is even worse than our central case – in fact, one that is truly dire. In this scenario, in which again we assume no fiscal effort over and above what the authorities have already announced, it would be very hard to imagine that the UK's credit rating does not get downgraded – and probably several times – by the ratings agencies. This would be a 'vicious cycle' scenario in which the economy fails ever to get decent growth going. Table 4.3 provides an overview. A few key elements of the story are worth highlighting:

- A huge fall in potential output. In this scenario, we assume that the IMF's average crisis effect is what ends up hitting the UK, i.e. one severe enough to reduce the level of potential GDP by 10%. On top of that, we also assume that potential GDP growth gets depressed by the dislocation and resource misallocation that has been evident for some time. Accordingly, there is little room for the economy to grow without quickly generating upward pressure on prices. Major structural reforms are needed to turn things around, perhaps even at the cost of a second downturn in activity, as so commonly happens in the first year of IMF programmes.
- Not much of a recovery in actual GDP at all. Even if a double-dip is avoided, the short-term path for GDP is rather more painful than in the other scenarios. As a result, unemployment rises for several more years, reaching double digits as a percentage of the labour force. Consumers cut back their spending further, perhaps pushing the household saving ratio up into double digits and keeping it there for a while.
- **Inflation on target.** Again we assume that the Bank of England is able to do its job and keep inflation close to 2%. However, with the economy doing so poorly, the chances of it sliding back into recession, perhaps requiring another big dose of QE, could not be ruled out. The UK might only avoid sustained deflation thanks to severe downward pressure on sterling, which would push up import costs.

% changes year on	2008	2009	2010	2011	2012	2013	2014	2015
year, except where								
noted								
Aggregate demand								
Real GDP	0.5	-4.9	1.2	1.5	1.0	1.2	1.8	1.7
Personal consumption	0.9	-3.2	-0.1	0.5	0.6	1.3	1.9	1.6
Fixed investment	1.0	-13.2	2.9	5.4	3.2	1.8	1.8	1.8
Govt consumption	2.6	2.0	0.3	-0.8	-0.3	0.6	0.7	0.8
Exports	1.1	-11.0	5.5	5.2	4.7	4.5	4.4	4.2
Imports	-0.5	-12.5	6.2	3.3	3.7	4.5	3.8	3.2
Inflation drivers								
Unemployment rate (%)	5.9	7.8	8.4	8.9	9.5	9.9	10.1	10.1
Employment	0.6	-1.6	-0.3	-0.3	-0.4	-0.3	0.1	0.3
Unit wage costs	4.0	5.2	0.5	1.9	3.2	3.2	2.4	2.1
Wages	3.7	2.2	2.2	3.7	4.7	4.7	4.2	3.6
Productivity	-0.3	-2.9	1.7	1.8	1.4	1.5	1.7	1.4
Consumer prices (CPI)	3.6	2.1	2.3	1.8	2.1	2.0	2.0	2.0
Consumer prices (RPI)	4.0	-0.6	2.8	2.6	3.0	2.8	2.8	2.8
Financial markets								
Official rates (%)	2.0	0.5	0.8	2.3	3.5	4.5	5.8	6.5
10-year bond yields (%)	4.1	3.7	4.8	5.6	6.1	6.4	6.7	6.8

Table 4.3. Barclays 'pessimistic' scenario

Note: Financial market variables are end-of-period values. All data and forecasts are for calendar years. Source: Barclays Economics Research.

4.6 Conclusion

All in all, the prospects for a strong recovery look to be rather poor. More likely, we suspect, the UK will manage to achieve a fairly feeble pick-up in activity, continuing to underperform most other advanced economies.