

4. The economic outlook

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Summary

- The UK economy is already in recession and the near-term outlook is worse than it has been for many years. But our central forecast is that the UK will avoid a deep and prolonged recession, thanks to enormous monetary and substantial fiscal stimuli already announced. However, we expect a decidedly slow recovery.
- Our central forecast is similar to the Treasury's in the near term, but has weaker growth than the Treasury expects in 2012–13 and 2013–14. We agree with its assessment that the credit crunch will reduce the productive potential of the economy by about 4%, albeit more slowly than the Treasury expects.
- Weak consumer spending and investment will be the main drivers of the recession and continued below-trend growth. With credit conditions likely to remain tight, and given high indebtedness, consumers in aggregate will increase their saving rates and companies will cut investment.
- The risks to this outlook remain skewed to the downside. A sharp change in household behaviour could drive the saving rate much higher and consumer spending sharply lower. But there are upside risks too. In particular, there may be positive supply-side responses to the shocks, which would reduce the loss of productive potential and allow the economy to sustain a stronger recovery.

4.1 Introduction

The near-term outlook for the UK economy has worsened sharply over the past year. The fallout from the 'credit crunch' and financial market turmoil that has affected the UK since August 2007 continues. But even before the credit crunch, underlying factors had already made weaker consumer spending and a rebalancing of the economy towards higher saving both desirable and likely. The effects of the credit crunch in weakening banks and reducing their willingness and ability to lend are making this adjustment more abrupt than we had anticipated – so much so that policymakers are now trying to slow it.

Along with the Treasury and the Bank of England, we expect the economy to contract in 2009 and growth to resume by 2010. Medium-term fundamentals look less sound than for several years, with the economy unlikely to sustain the growth in productive potential of close to 2½% per year that we have seen in recent years.

Section 4.2 discusses recent developments and the short-term outlook for the economy. We focus particularly on the outlook for consumer spending and investment and for business investment, and on the response of monetary policy. Section 4.3 assesses the longer-term trend growth rate of the economy and analyses what this implies about the shape of the current economic cycle. Section 4.4 concludes by bringing together our assessment of the short-term outlook and medium-term potential and presents a central scenario, a more pessimistic scenario and a more optimistic scenario for the economy

over the next five years. We discuss the outlook for the public finances and debt issuance under these scenarios in Chapters 6 and 7, respectively.

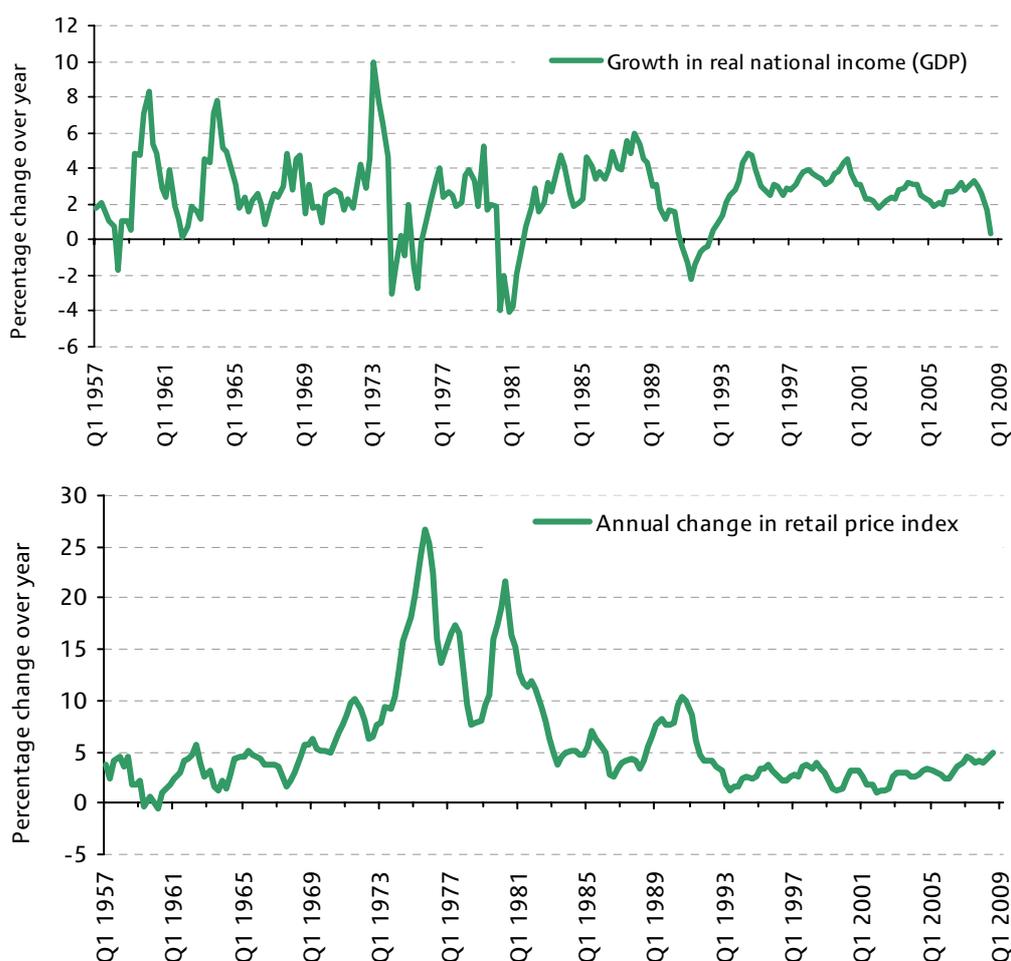
4.2 Recent developments and near-term outlook

Introduction

Volatility in the level of economic activity and in inflation has been exceptionally low over most of the past 15 years (Figure 4.1). This partly sowed the seeds for the current, more volatile period. Less fear of sharp gyrations in the economy probably contributed to the rapid rise in household and corporate debt and to the government's willingness to run budget deficits on a scale not normally associated with periods of extended economic growth.

As a result, the UK economy has shown itself to be vulnerable to the prolonged period of tighter credit that has ensued. Crucial to any assessment of vulnerability is an assessment of: household and corporate balance sheets; the availability and cost of credit and the reliance on borrowing of

Figure 4.1. Economic growth and inflation since 1957



Source: ONS.

corporates and households; and the extraordinary policy measures enacted and the policy options remaining. We assess these in this section.

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For the last year or so, economic growth in the UK has been weakening – quarter-on-quarter output growth turned negative in the third quarter of 2008 for the first time in more than 15 years. Credit conditions have tightened markedly and global growth has slowed sharply. In nominal terms, we appear to be on track for at least as severe a contraction in UK house prices as we saw in the early 1990s housing ‘bust’, and the FTSE 100 is down some 27% since the summer of 2007. Both will have significantly reduced the aggregate wealth of UK households.

High inflation through much of 2008 constrained the real incomes of households and compressed profit margins for many companies, even before they were hit by tighter credit conditions and slowing demand. Many companies appear to be having difficulty accessing credit and are conserving working capital, leading to lower investment and lower employment. In aggregate, UK households continue to spend almost all their disposable income, and the household saving rate dipped into negative territory for the first time since the late 1950s in Q1 2008.

Our central forecast for calendar year 2009 GDP growth is for the first outright whole-year contraction since 1991 (-1.3% after a likely +0.7% in 2008). But this masks the size of the slowdown: in Q1 2009, we expect year-on-year GDP growth to be around -2.5%. Our central forecast of -1.3% growth in 2009 is broadly in line with the bottom end of the Treasury’s range of -1¼% to -¾% (where the lower end of the range is used in the Treasury’s fiscal projections).

We continue to see the balance of risks to our central forecast as skewed to the downside:

- The prolonged tightening in credit conditions seems unlikely to disappear suddenly in 2009, and we expect 2009 to be characterised by continued tight bank lending criteria and sluggish lending growth.
- Further falls in house prices and housing transactions are plausible and employment is likely to fall in 2009. Derivative contracts written on the national house price index (HBOS measure) are consistent with around a 30% *further* fall in nominal house prices over 2009 and 2010.
- There remains a risk of ‘negative feedback loops’ developing and worsening in the UK economy. Asset price falls (including housing), the slowing economy and rising unemployment could make banks even less willing to lend, and households and companies less willing to spend, all worsening the outlook for the real economy, encouraging further asset price falls and leading to further increases in unemployment.
- While the household saving rate fell to remarkably low levels in early 2008, there is a real risk that, given tighter credit conditions and a high level of indebtedness, UK households in aggregate will increase their savings rapidly. With few prospects of rapid income growth, a sharp contraction in consumer spending would then be likely.
- Much of the economic boost from the fiscal stimulus could be negated by a sharp rise in government bond yields should demand for issuance fall below the large amount of incoming supply. See Chapter 7 for more analysis of this possibility.

Yet despite these risks, we remain cautiously optimistic that the UK can avoid a deep and prolonged recession. This is largely due to three factors:

- Massive monetary and fiscal policy stimuli that are likely to cushion household demand and generate a gradual period of balance sheet and savings adjustment rather than a short, sharp one.
- A determination by the UK authorities to get credit markets functioning and revive the flow of lending.
- The large depreciation in sterling over recent months combined with coming disinflation that together are likely to boost net exports without implying a sharp contraction in consumer spending.

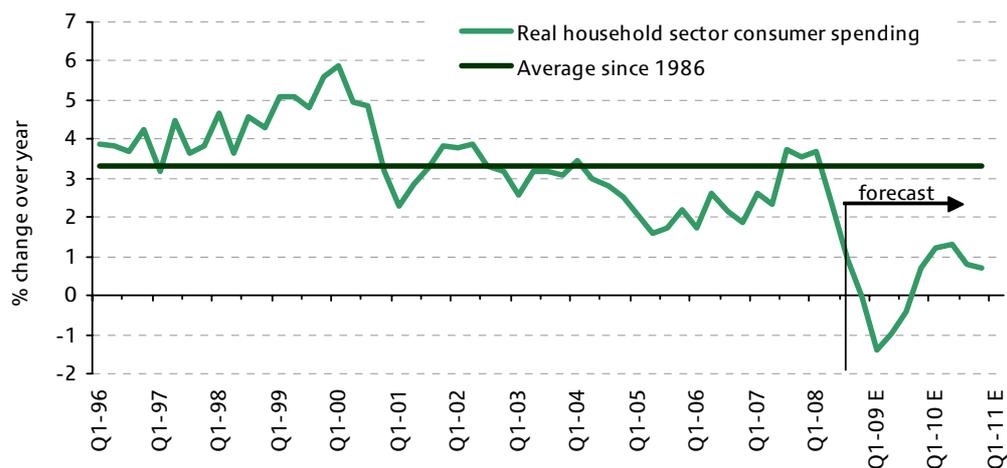
For the first time in many years, the Treasury's own forecast used in its public finance projections is not more optimistic than our own central forecast (i.e. what we judge to be the most likely single scenario) for the coming fiscal year. The Treasury also expects to see an eventual recovery as the lagged effects of monetary and fiscal stimuli, lower commodity prices and a weaker sterling feed through. It expects an easing of credit conditions in 2009.

The big unknown for our own (and the Treasury's) forecasts is how long and to what extent exceptionally tight conditions in credit markets are likely to persist. In particular, if the UK economy is not to fall into a very serious recession in 2009, lending growth needs to stabilise at least. In aggregate, firms need to be assured that access to credit will not be severely constrained. With constrained access to credit, hoarding working capital becomes a primary focus (leading to cutbacks in investment and employment).

Household consumer spending and investment

We expect consumer spending to contract in the near term (Figure 4.2). Our central forecast is for a 0.5% contraction in real consumer spending in 2009 after likely growth of around 1.7% in 2008. We expect consumer spending growth to remain below par in 2010 at just 1.0%: debt levels and debt service costs are already high, although there are signs of some improvement in the latter. Many households will find their finances under increased strain as unemployment rises, and labour market conditions will continue to deteriorate through most of 2009. Falls in house prices and share prices have hit household wealth and, alongside growing job insecurity, this may encourage increased saving. With nominal disposable income likely to grow little more than 1% over the next year, this should translate into slow nominal consumer spending growth. However, we anticipate a gradual rather than sharp rise in saving.

Figure 4.2. Real consumer spending growth



Sources: ONS; Morgan Stanley Research. E = Morgan Stanley Research forecasts.

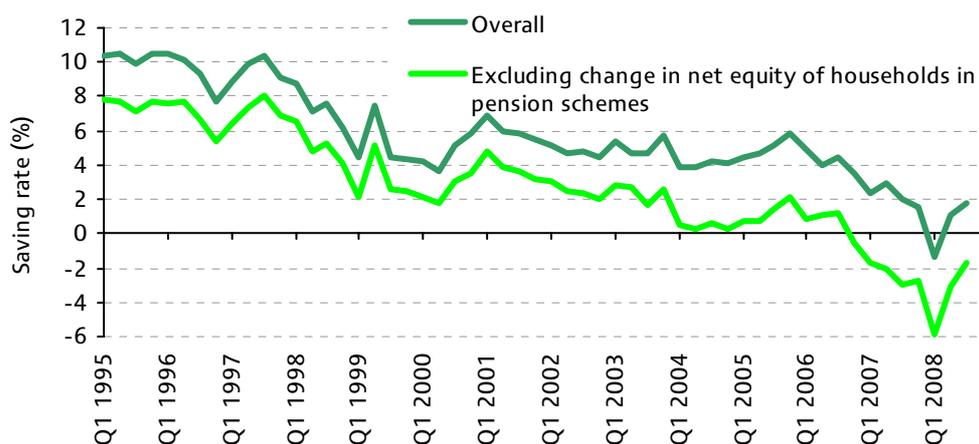
Household saving rate and disposable income

Our central consumer spending forecast assumes that households do not increase their real spending in line with real disposable income, but that a desire to increase savings dampens the increase in spending.

The household saving rate has remained at low levels and it was briefly negative in Q1 2008 (Figure 4.3). We expect that to have marked the bottom:

- Income uncertainty has probably increased sharply as the economy has deteriorated rapidly after a long period of stability; all else equal, this should lower the level of debt that households will be comfortable holding and increase their desired level of precautionary savings.
- Consumption smoothing using credit has become more difficult. It therefore makes sense to pay down debt and increase liquid savings so that existing credit lines and accessible saved funds can provide more of a buffer against any subsequent income fluctuations.
- Falls in equity and house prices have depleted levels of household wealth. Households will want to rebuild their financial assets in order to compensate.

Figure 4.3. Saving rate



Sources: ONS; Morgan Stanley Research.

Our central forecast is that the increase in the saving rate will be relatively gradual and will not imply a very sharp consumer recession.

Growth in disposable income (nominal and real) is an important determining factor of the outlook for savings and consumer spending. Most consumers make some effort to smooth their spending over time such that movements in income do not feed through one-to-one into spending. However, analysis suggests that for about 15% of UK households, current spending equals current income.¹ Post credit crunch, that percentage will presumably have increased.

Our outlook for nominal disposable income is for significantly slower growth in 2009 followed by a recovery in 2010. Our central forecast, in real terms, is for an increase of less than 1% in 2009, and around 2% growth in 2010. Falls in employment in 2009 and sluggish wage growth are likely to be offset somewhat by lower growth in tax payments, lower interest paid and much lower inflation (led by falls in energy and food prices). In 2010, a return to positive employment growth will be offset somewhat by higher taxes and social contributions (though themselves largely reflecting a stronger economy). Higher inflation will also moderate growth in real incomes.

The effect of Bank of England rate cuts on disposable income: Most debt held by UK households is mortgage debt. We estimate that the 3 percentage point (300bp) cut in interest rates by the Bank of England in Q4 2008 alone will have been worth around £15 billion to households with mortgage debt (about 1% of GDP).² This is somewhat offset by the impact on those with variable-rate savings, but we think that the net effect will be positive. Gross debt liabilities are around 40% greater than currency and deposits. Credit constraints are now binding on larger numbers of people with debt or with no liquid

¹ R. Banerjee and N. Batini, *UK Consumers' Habits*, External MPC Unit Discussion Paper 13, Bank of England, May 2003.

² About 50% of mortgages in the UK have a floating rate. This includes about 10% of the total stock of mortgages which pay the lender's standard variable rate mortgages (SVRs). Most of the rest of that 50% are tracker mortgages or discounted variable mortgages of one type or another, where the vast majority of tracker mortgages will link to the Bank of England policy rate (though some tracker and variable-rate mortgages will have collars or floors). The value of outstanding mortgages in the UK is about £1.2 trillion. So, if rates come down by 300bp for 40% of mortgage debt, this will be a boost to disposable income of those with debt (all else equal) of roughly £15 billion.

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savings, and those people are likely to have a higher marginal propensity to consume from income than net savers.

The Bank of England rate cuts have not only improved the disposable income outlook for existing mortgage borrowers on variable-rate mortgages, but also for those on fixed rates. We estimate that the fixed term on around 1.1 million fixed-rate mortgages will expire during 2009 (affecting around 4% of all UK households, assuming that relatively few households have multiple mortgages).³ Bank of England rate cuts mean that for most households there will not be a significant change in the interest payment burden when these fixed-rate terms expire. Two-year swap rates have come down rapidly since the summer, and this has had an impact on fixed rates on new mortgages. However, many of those rolling off two-year fixed-rate deals will now be in negative equity and therefore unable to get another two-year fixed-rate mortgage without injecting equity or alternatively (by default) they will generally roll onto paying standard variable rates (SVRs). But following the Bank of England rate cuts, these SVRs have declined sharply. In November, the average quoted SVR was 6.34% *before* reflecting the 350bp of cuts since October. Many lenders now have SVRs of 5% or less, compared with the average quoted two-year fixed-rate mortgage rate (for a 75% loan-to-value (LTV) ratio mortgage) in November 2006 of 5.2%.

Household balance sheets

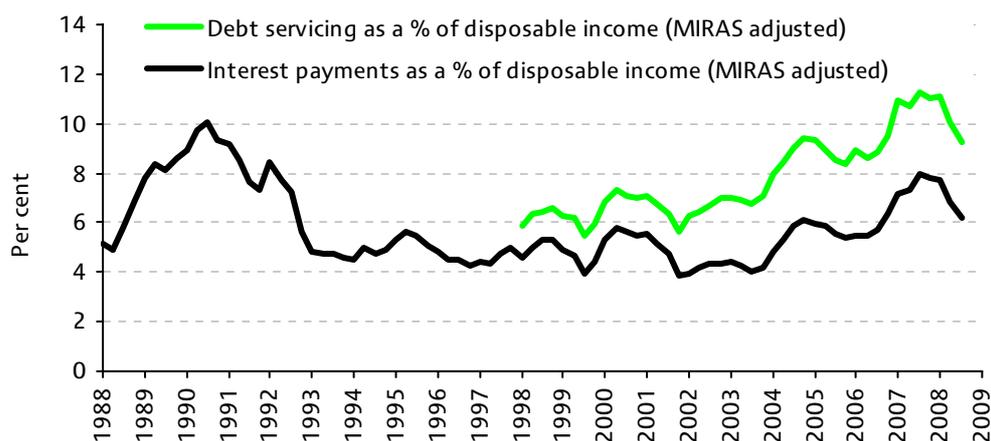
UK households are highly indebted. Total household sector financial liabilities are around £1.6 trillion or around £62,000 per household. Income gearing (the ratio of household sector liabilities to disposable income) is unusually high at around 170%, as is the ratio of household liabilities to GDP relative to the UK's peers.

The more highly geared households are, the more sensitive household expenditure is likely to be to shocks in current and expected interest rates. While that was broadly bad news for growth in 2008, reflecting the ramp-up in secured lending interest rates over 2007, into 2009 this should be a net *positive* for consumers.

Much is often made of the unsustainability of the UK household debt burden. However, one main determinant of sustainability is households' ability to service the debt burden. That appears to be improving. The household aggregate ratio of interest paid to disposable income has now started to fall back, and it is likely to fall further as Bank of England rate cuts feed through (Figure 4.4). The debt-servicing ratio (including principal payments on secured debt) is at more worrying levels and, while improving, continues to leave households looking vulnerable to income shocks.

³ In 2007, 1.5 million fixed-rate mortgages were taken out in the UK. The vast majority have fixed-rate terms of between two and five years (longer-term fixed-rate mortgages remain unusual in the UK) and a lot of these will have been two-year fixed-rate mortgages. We assume that 75% were two-year fixed-rate mortgages.

Figure 4.4. Debt affordability

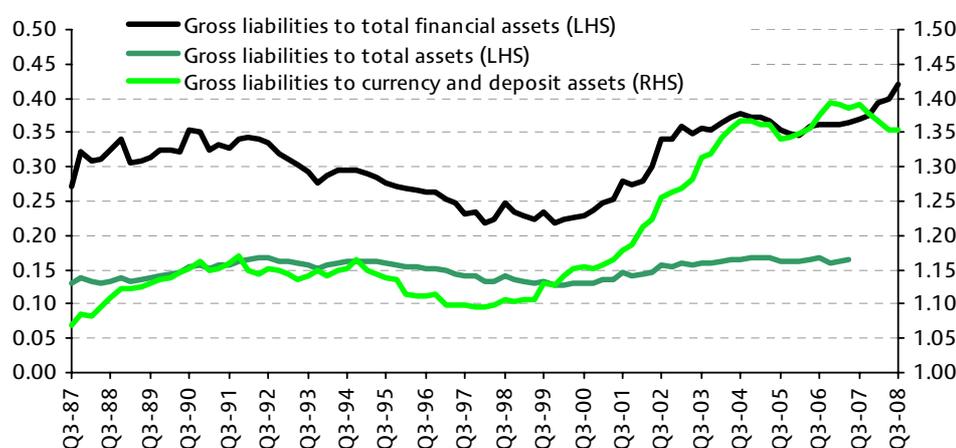


Notes: Debt servicing is interest payments by households and regular payment of mortgage principal. MIRAS is mortgage interest tax relief (phased out during the 1990s).

Sources: Bank of England; ONS; Inland Revenue; Morgan Stanley Research.

But while interest rates on a large proportion of the stock of debt are falling, credit conditions have tightened more broadly. Households with high loan-to-value ratios on their mortgages face greater difficulties remortgaging. While the interest rate paid on their stock of debt has, or will, decline for many, the stock of household debt relative to income may have become unsustainably high in the sense that it is above banks' desired levels.

Figure 4.5. Household capital gearing: increased debt and assets



Note: Total assets uses interpolated non-financial assets series.

Source: ONS.

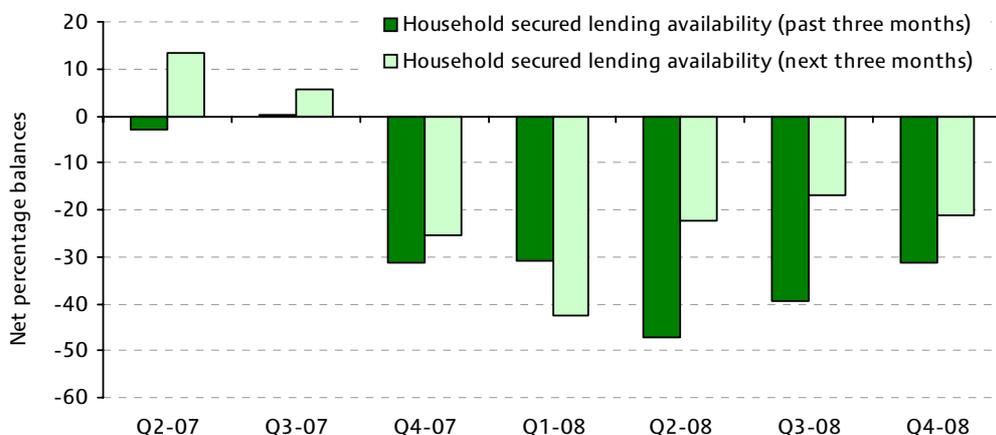
Further, the ratio of household gross financial liabilities to total assets (Figure 4.5) is likely to have worsened markedly with declines in house and stock prices. The level of liabilities to total liquid 'safe' assets (proxied by holdings of currency and deposits) has risen particularly sharply over the last 10 years. In the current economic environment, households in aggregate might consider reducing these ratios imperative.

Household borrowing

While the outlook for existing mortgage borrowers looks brighter following the large Bank of England interest rate cuts, the outlook is far less good for new lending. This

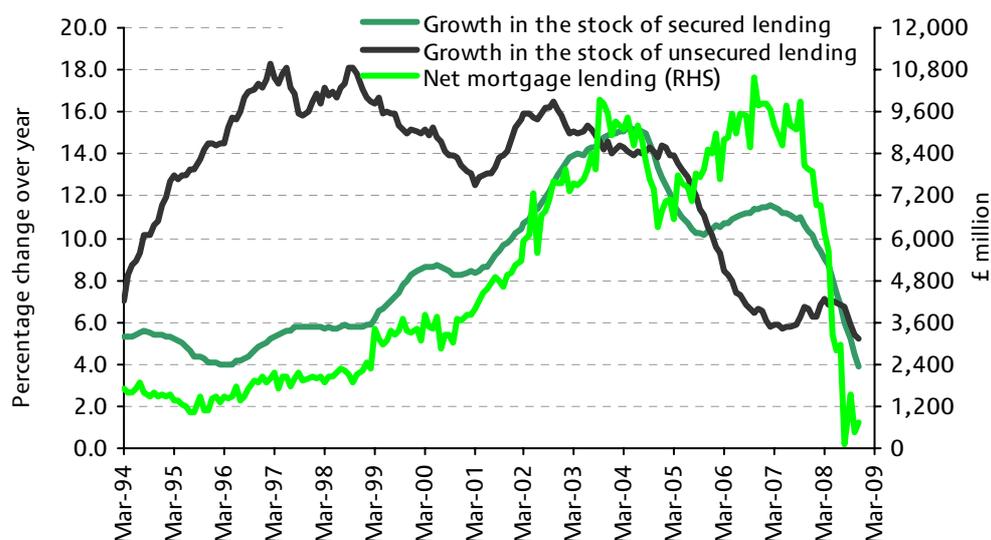
reflects exceptional pressures on banks and building societies, which have affected the availability and supply of credit (Figures 4.6 and 4.7, and see Box 4.1 later for more on the impact of bank deleveraging). Net new mortgage lending is very low compared with recent history.

Figure 4.6. Credit availability (Bank of England Credit Conditions Survey)



Source: Bank of England.

Figure 4.7. Growth in the stock of lending to households and absolute amounts of monthly net mortgage lending



Source: Bank of England.

Lower credit availability is a negative factor for housing transactions, house prices and residential investment. The link between secured borrowing and consumer spending will largely work through housing equity withdrawal.⁴ However, the link between housing equity withdrawal and consumer spending appears to have been variable, so it is difficult to draw firm conclusions. UK consumers needed to borrow (a bit) to consume and invest (in fixed assets) at average 2007–08 levels; they could only fund 90% of this spending from disposable income. We continue to think that as far as aggregate household

⁴ An increase in housing equity withdrawal simply means that mortgage lending has increased ahead of investment in housing – i.e. in aggregate, households are using secured borrowing to free up funds to invest in other assets, to pay down unsecured debt or to spend.

consumption spending is concerned – as opposed to housing market activity – the average interest rate on the stock of mortgage debt is more important than the availability and cost of new lending.

Employment and wages

Employment growth (Figure 4.8) and wage growth seem likely to subdue near-term consumer spending growth. We expect employment growth to lag the downturn slightly and that unemployment will continue to rise for at least a couple of quarters after quarter-on-quarter GDP growth has turned positive.

Figure 4.8. Employment growth



Sources: ONS; Morgan Stanley Research forecasts.

There are few areas of employment that look likely to be unscathed in this recession: manufacturing sector employment looks vulnerable through its cyclicity and also through the number of jobs connected to the beleaguered motor industry. But over the past five years, the manufacturing sector has already shed around a million jobs. One of the strongest increases in numbers employed over the past five years has been in business services, which looks vulnerable in light of the sharp corporate profits declines we expect. Relative to the size of the sector, increases in employment had also been particularly marked in the construction sector. The near-term outlook for residential construction remains poor. However, there are a number of big construction projects underway and the government announced in the November 2008 Pre-Budget Report (PBR) that it was aiming to bring forward £2.9 billion of public sector investment originally planned for 2010–11 into 2008–09 and 2009–10.

In an environment of rising unemployment and declining inflation, nominal wage settlements in the private sector are unlikely to pick up. There is also a great deal of 'hidden' unemployment,⁵ which is likely to continue to constrain wage growth. The relatively tight settlement for public spending departments announced in the October 2007 Comprehensive Spending Review (see Chapter 9) has also led to the government attempting to slow pay growth in the public sector.

⁵ Working-age inactivity levels have risen over the past 10 years after a sharp rise following the last recession. Although this has been declining as a percentage of the working-age population, the decline has been very gradual.

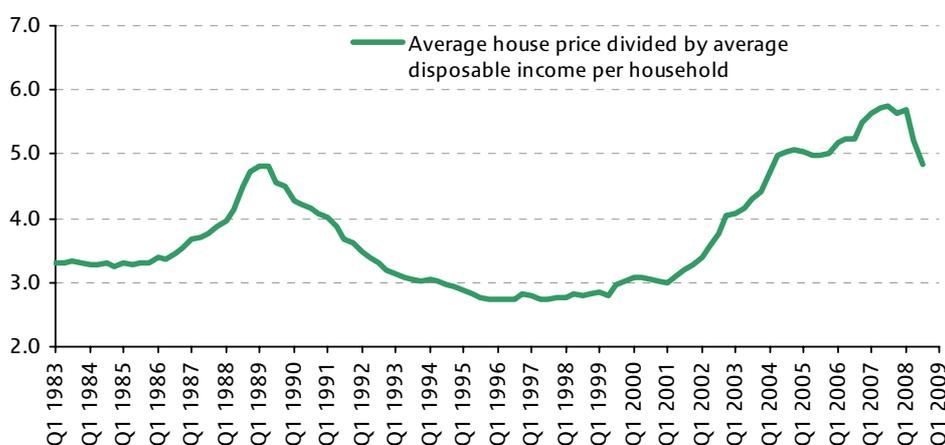
Housing, equities and the wealth effect

Since the end of 2007, house prices have fallen some 15% or so (depending which measure of house prices you look at). The FTSE All-Share has declined by around 30% (and international equities around 20% in sterling) over the same period. These significant falls in housing and equity prices have created a substantial fall in household wealth of around £600 billion for housing and, we estimate, roughly £400 billion in the case of equities (reflecting both direct and indirect holdings, such as those held in private pensions).

House prices: House prices have fallen rather rapidly over the course of 2008, while transactions have declined by much more. Our main house price model⁶ suggests that we are almost the entire way through the correction so that (in nominal terms) we would expect a further decline of only around 5% or so. However, the numerical results of the model are sensitive to assumptions made on the path of real mortgage rates, the pace of house-building and the proportion of house price expectations that are backward- and forward-looking. (We find that expectations play a significant role in determining UK house prices.)

Because the models we use do not capture well the non-price tightening in credit conditions, we think that the balance of risks is skewed towards a larger decline in house prices than in our central forecast. Simple measures of housing valuation and affordability have looked stretched for some time and, despite substantial falls in prices, they continue to do so. The average house

Figure 4.9. House prices relative to average household disposable income



Notes: Average house price uses HBOS series. Average disposable income uses aggregate disposable income of the household sector divided by the (interpolated) number of households.

Sources: ONS; HBOS; DCLG; Morgan Stanley Research.

price (as of Q3 2008) was still 4.8 times average household disposable income, compared with a long-term average of about 3.7 times (Figure 4.9). If disposable income were to stay constant, getting back to this historical average would require another 20% fall in house prices. Seen from an investor perspective, UK housing also looks expensive. The net yield on UK residential property fell below the FTSE 100 dividend yield in 2007, reaching its lowest level since at least 2001.

⁶ See M. Helsby, D. Miles, S. Hayne and M. Baker, *UK Banks & Economics: The Mortgage Markets, the Wider Economy and the Banks in the Credit Crunch*, 14 April 2008.

Housing wealth and transaction effects on consumer spending: Yet the link between household spending and house prices is variable over time and may not be especially strong. We use a mid-point of academic estimates of the wealth effect (that consumers spend around 2.5% of the change in housing wealth) to estimate the impact of the decline in housing wealth on household spending. The £600 billion decline in housing wealth would therefore imply about a £15 billion hit to consumer spending (1.7% of consumer spending or around 1% of GDP) – a figure comparable to the extra disposable income those with mortgages might get following sharp falls in interest rates.

Negative equity: Based on the distribution of LTV ratios in mortgage lending up to the end of 2007, we estimate that a total decline in house prices (peak to trough) of 20% would leave close to 2 million mortgages (or about 17% of the total) in negative equity. That would affect a large proportion of the UK population. Further, of the existing mortgages at the end of 2007, a significantly higher proportion will now have LTVs above 80% (the point at which mortgage availability appears relatively limited). However, being in negative equity or having a high LTV mortgage does not directly impact a person's incomings and outgoings; but it is likely to do so when they want or need to remortgage or to move home. However, the sharp decline in lenders' standard variable rates will help here (see page 55).

Equities: The decline in equity wealth is also big, at about £400 billion, we estimate. Studies suggest that the impact on consumption of a change in equity wealth is 2–4% of the change in equity wealth in the UK. This could imply another £8–16 billion hit to consumer spending.

Business investment

Our central forecast is for real fixed investment spending to contract by more than 4% in 2008 after an increase of around 7% in 2007, and then contract by a further 7% in 2009. Within that, we expect business investment to slow in both 2008 (–0.3%) and 2009 (–5.9%) on tight credit conditions, a difficult global environment and an earnings recession. Investment plans have deteriorated sharply over the year on a number of survey metrics. Morgan Stanley analysts expect total global capital expenditure to decline by 8–10% in nominal terms in 2009 and that some of the most significant investment contractions will be in hotel/leisure, construction, transportation and retail sectors.⁷

The outlook for business investment remains uncertain because it is tied to expectations of the economic outlook and order books. These deteriorated quickly in the last quarter of 2008 and may again change rapidly. Those expectations may change on the upside (for example, on signs that the large policy stimulus enacted by authorities across the globe is starting to have some traction). Assessments of the output gap (Figure 4.16 later) suggest that the economy did not have a great deal of spare capacity heading into this recession, and without a large overhang of excess capacity to work through, the recovery in investment may come quite quickly. Expectations may also worsen (the global economy continues to fail to respond to the policy stimulus as consumers and companies retrench across different economies).

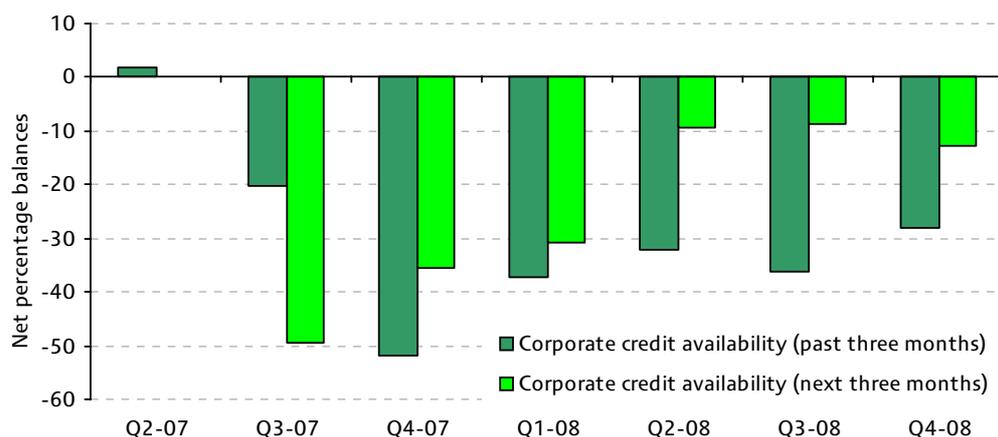
Credit conditions – cost and availability of credit (and capital)

Investment seems likely to remain depressed by the tightening in credit conditions.

⁷ S. Babka et al., *Capital Goods: Cutting Estimates Sharply but Changing Tactics*, Morgan Stanley Research, 3 November 2008.

Availability of credit: Lenders (in the Bank of England’s Credit Conditions Survey) have reported that, on balance, they have reduced corporate credit availability for six successive quarters and expect to reduce availability further (Figure 4.10). Although undrawn credit lines are extensive at many UK banks, Morgan Stanley credit strategists suggest that this is largely not funding that corporates could use as a substitute for term funding, as it contains large portions of short-term funds, consumer-related credit lines and liquidity facilities to the banks’ own commercial paper conduits.⁸

Figure 4.10. Bank of England Credit Conditions Survey: corporate sector credit availability



Notes: Net percentage balances are the difference between the weighted balance of lenders reporting that, for example, demand was higher/lower or terms and conditions were tighter/looser. The net percentage balances are scaled to lie between ± 100 .

Source: Bank of England.

Lending growth to private non-financial corporations seems to have slowed sharply, although separating the effects of shifts in demand from the effects of shifts in supply is difficult. M4 lending to private non-financial corporations (the stock of loans) grew 5% year on year in November 2008 from a recent high of 20% in February 2007.

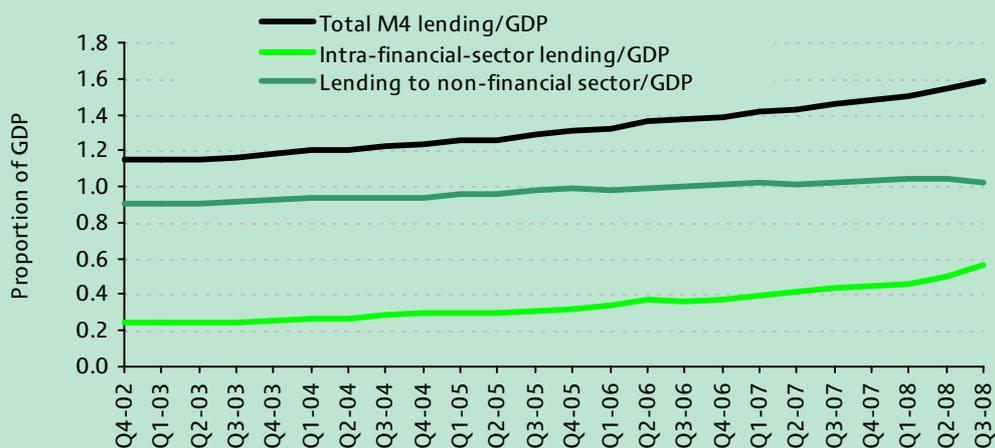
Box 4.1 gives more detail on the impact of bank deleveraging.

Box 4.1. Does deleveraging have to reduce non-financial sector credit?

The impact of deleveraging depends on how leverage was built up. Figure 4.11 shows that lending by UK monetary and financial institutions has increased greatly over the past 10 years. The ratio of gross M4 lending to GDP – one simple measure of leverage for the whole economy – increased from close to 105% to 160% between 2000 and the third quarter of 2008. A substantial part of that increase represents lending by banks to other financial institutions. This intra-financial-sector lending rose from 23% of GDP to about 57% of GDP; M4 lending to the private non-financial sector rose much less sharply – from around 81% of GDP to 102% of GDP.

⁸ A. Sheets et al., *Fear of Commitments*, Morgan Stanley Research, 26 November 2008.

Figure 4.11. UK bank and building society sterling lending (M4 lending)



Note: Figures show lending by M4 lending institutions (banks and building societies) in sterling to the non-bank private sector – disaggregated into lending to the private non-financial sector and loans to other (non-bank) financial institutions.

Sources: Bank of England; ONS; Morgan Stanley Research.

So, more than 60% of the very substantial rise in total economy leverage since 2000 came about due to lending between financial firms. Much of that rise came about as banks sold assets that once would have sat on their balance sheets (largely as loans) to non-banks (e.g. hedge funds) who financed the acquisition with loans. Some of that activity came about through off-balance sheet vehicles (structured investment vehicles and special purpose vehicles). If this process were to go into reverse, deleveraging in the economy could be very substantial while the availability of credit to the non-financial sector is little affected. The example outlined below shows how:

The creation and destruction of leverage

Old-fashioned bank

Assets	Liabilities
100 (loans)	10 (equity)
	90 (deposits)

Total debt in economy (gross): 100 of loans to non-banks + 90 bank debt = 190

New bank firm

Assets	Liabilities
100 (loans/ABCP)	10 (equity)
(loans/ABCP)	90 (deposits)

New non-bank financial

Assets	Liabilities
100 (ABS)	100

Total debt in economy (gross): 100 of loans to non-banks + 90 bank debt + 100 of bank loans/ABCP to the new non-bank institution = 290

Notes: ABCP = asset-backed commercial paper; ABS = asset-backed securities.

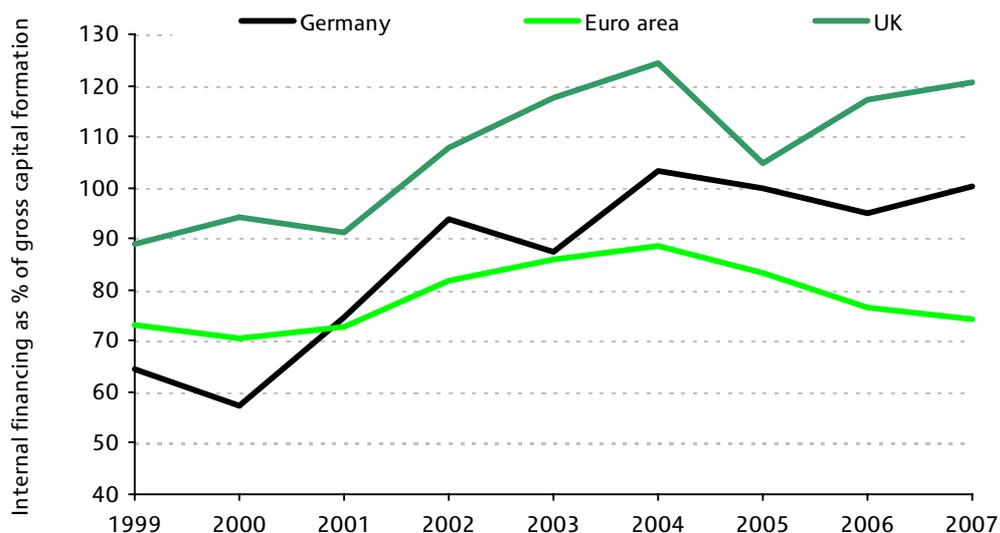
In the example illustrated above, the transition from an old-fashioned bank (with loans held on balance sheet financed by debt raised from the non-bank private sector) to a new bank (with loans securitised and sold to a financial institution that is financed by bank debt) sees leverage rise by over 50% as gross debt rises from 190 to 290. But that process could go into reverse with no change in the availability of credit to the non-bank private sector. The example above suggests that, in principle, very substantial deleveraging need not create substantial aggregate problems for the economy.

Cost of credit: There is mixed evidence on what is happening to the cost of credit. Since the start of the credit crunch, government bond yields have fallen sharply, but corporate bond spreads have risen, leaving corporate bond yields significantly higher. Latest data on effective (new) bank lending rates to corporates from the Bank of England show sharp declines. This broadly tracks the movements in 3-month libor such that lending rates should decline significantly further in future data releases. However, the Bank of England Credit Conditions Survey indicates that for lending to private non-financial corporations (PNFCs), fees and commissions have increased, collateral requirements have increased and loan covenants have been tightened (i.e. the cost of credit has increased other than just through the interest rates charged on loans).

However, the cost of credit is irrelevant if credit cannot be obtained (at the extreme, if a company cannot obtain any credit, then its cost of credit is effectively infinite).

Reliance on borrowing: The effect of tightening credit conditions on investment partly depends on the reliance of UK corporates on borrowing to fund investment. Non-financial companies in the UK can, in aggregate, fund 100% of their fixed investment from retained earnings (although they would need to borrow in order to undertake direct investment or mergers and acquisitions).

Figure 4.12. Non-financial corporates: internal financing as a percentage of gross capital formation



Note: Calculation is, for the non-financial corporate sector, gross (including depreciation) corporate savings divided by gross capital formation.

Sources: ONS; Morgan Stanley Research.

That aggregate 'internal financing ratio' is higher than in Germany and the euro area as a whole (Figure 4.12), but partly reflects high profit levels that are likely to prove unsustainable. Morgan Stanley equity strategists expect a sharp 'earnings recession' in 2009 and into 2010 (see Chapter 6), forecasting that UK profits will contract by a third. They think that with the domestic and global economies set to face their biggest slowdown since the early 1990s, if not the early 1980s, the outlook for corporate profits looks particularly bleak, especially when coupled with the probability of a sharp contraction in profitability as operational and financial leverage go into reverse. If we were to assume that the UK corporate return on equity (RoE) falls from its current level

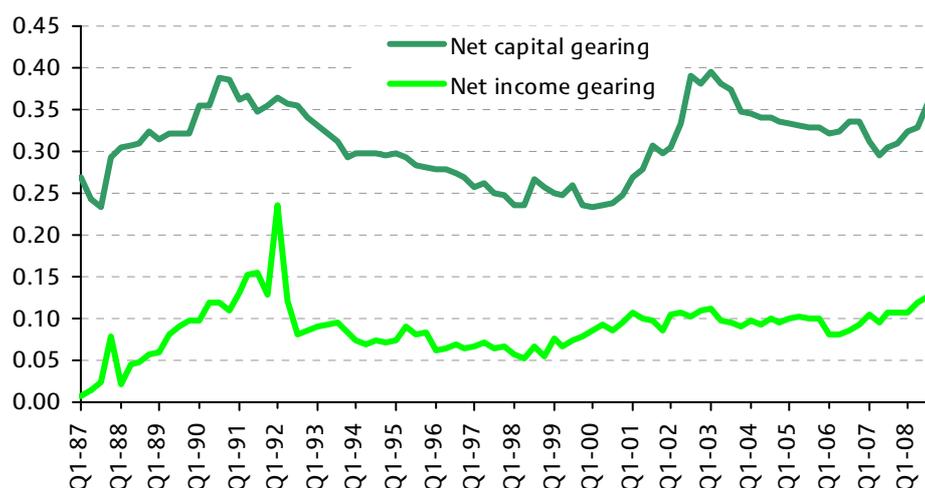
of 19% to the previous trough of 10%, this would imply close to a 50% fall in corporate earnings.

Conservation of working capital: Investment plans are also being cut simply in order to conserve working capital. This is a natural consequence of the economic downturn through expectations of deteriorating profits, but it is exaggerated through corporate worries about financing and the ability to access credit.

Corporate balance sheets

UK private non-financial firms appear to have relatively strong balance sheets (in aggregate) and are shielded to some extent by the recent robust growth of aggregate retained income. But these levels of earnings are likely to fall. Private non-financial corporate sector holdings of cash (currency and deposits) are large (around £700 billion in Q3 2008, or around 50% of GDP). The level of capital gearing does not look significantly above historical averages (Figure 4.13). Further, in terms of refinancing needs, the Bank of England, in its October 2008 Financial Stability Report, stated that Dealogic data suggest that only 10% of the stock of sterling-denominated bonds and loans outstanding are due to mature in 2009. Net income gearing also does not look alarmingly high, although it has risen steadily over the past couple of years (Figure 4.13). However, as a percentage of GDP, the level of UK non-financial company corporate debt

Figure 4.13. Private non-financial corporate gearing (ratios)



Notes: Net capital gearing measure: [non-equity financial liabilities less liquid assets (we use currency and deposits plus money market instruments plus bonds)] divided by [numerator plus 'shares and other equity']. Our net income gearing measure: net interest paid divided by gross operating surplus.
Sources: ONS; Morgan Stanley Research.

has risen significantly over the past decade.⁹ Further, the aggregate statistics are likely to hide large pockets of vulnerability – the Bank of England suggests that the proportion of debt held by businesses whose profits were not enough to cover their debt interest payments picked up in 2007 to about 25%. Just as consumers are not likely to increase spending sharply as the economy improves in order to build up their savings and pay down debt, so the same may be true of the corporate sector in terms of investment spending.

⁹ Liabilities that are securities other than shares, plus loans less direct investment loans.

Global environment

Uncertainty on the outlook for exports remains high. We do not expect to see positive GDP growth in the euro area (the UK's main trading partner) until the second half of 2009. Therefore, external order books at least may take several quarters to pick up. Furthermore, the global nature of the downturn will leave few places to hide in terms of pockets of resilient demand for UK products. The 25% depreciation in the trade-weighted sterling since the summer of 2007 is potentially a powerful offset to this.¹⁰ This should enable UK-based firms to price their products and services more competitively in global markets and help UK-based firms to compete in the UK against firms from overseas.

Downturn in commercial property

The buildings and structures component of business investment remains vulnerable (15% of total fixed investment is private non-financial corporations' investment in non-residential buildings and structures). In particular, the commercial property sector is capital-intensive and has been affected by reduced availability of credit and overhang of supply in some sectors (rental and investment). Commercial property prices have declined sharply. Data derived from derivatives based on the IPD UK commercial property index suggest total capital growth of -23.4% in 2008 and another -24.1% in 2009. If realised, Morgan Stanley property analysts estimate that this would leave a high proportion of commercial property loans made between mid-2005 and mid-2007 in negative equity. This would likely significantly constrain the availability of financing for new commercial property projects. They suggest that practically all commercial property developers have deferred or abandoned the start of any development to which they are not already irrevocably committed.

Monetary policy

On our central case, the Bank of England keeps rates roughly where they are through most of 2009, then starts raising them back to around 'neutral' (see below) by the end of 2010. All else equal, further aggressive rate cuts and even moves into further 'unconventional' easing measures raise the risk of a quick and sharp policy reversal in late 2009/2010.

There are likely to be further big moves in inflation over the coming couple of years (not least due to the temporary VAT rate cut; see Chapter 10). The Bank of England is likely to look through these (and much of the impact from volatile commodity prices) just as it has looked through the sharp rise in inflation in much of 2008 in deciding on interest rates. If the economy continues to decelerate, we have few doubts that the Bank of England will loosen monetary policy further and try to boost lending, whether by cutting rates further and/or by using additional unconventional monetary policy measures.

Neutral rates

Before the credit crunch, we had considered policy rates of around 5-5½% to be about 'neutral' in the UK – that is, at a level such that if capacity utilisation is sustainable, and if growth is at its trend level, inflation would settle at around the target level (2% CPI

¹⁰ If, for example, the price elasticity of the volumes of exports and imports were each ½ – so that the Marshall-Lerner conditions were just satisfied – there would ultimately be a roughly 12½% rise in the volume of exports and a 12½% decline in the volume of imports if the depreciation in sterling since mid-2007 were to be sustained. That would represent a boost to demand of around 7½% of GDP. Empirical evidence does suggest that the Marshall-Lerner conditions, that the sum of price elasticities is at least unity, are just satisfied for the UK.

inflation).¹¹ However, given that bank costs of financing relative to the policy rate have risen and that some of this differential is likely to linger, we estimate that a neutral rate is now around half a percentage point lower.

Inflation outlook

RPI inflation is likely to be negative (year on year) for much of 2009. Year-on-year CPI inflation is likely to be briefly negative in 2009. Disinflation and fear of deflation are likely to be a prominent theme during 2009. However, much of this 'deflation' simply reflects a reversal in the drivers of strong inflation seen last year, particularly lower oil prices. The large rate cuts from the Bank of England also have a strong downward impact on RPI inflation (through the mortgage interest payments component). Further, the temporary VAT rate cuts also help to drive the fall in year-on-year inflation in 2009 and to generate a strong rise in inflation in 2010. By 2011, we tentatively expect CPI inflation to be roughly at the target (hence our central case is not for further rate cuts).

There are both upside and downside sources of risk to this profile. On the upside, the significant depreciation in sterling could affect (especially goods price) inflation strongly in 2009 and help to offset the downside factors highlighted above. Many firms are likely hedged to a degree against foreign exchange movements so that the effects of a weaker sterling may come through with a lag and accentuate the up-move in inflation in 2010. On the downside, there are still significant risks to our central GDP growth forecast. Domestically-generated inflation could therefore be a lot lower than we expect.

Real rates

Negative year-on-year inflation in 2009 is likely to increase simple measures of the real interest rate. Some have expressed worries that this will effectively kill off prospects of a recovery in 2009. We think that this is not the most likely outcome and in fact we are more likely to see 'good deflation' rather than 'bad deflation'. 'Good deflation' boosts real incomes, is not led by domestic demand pressures and is temporary. If this is what we see, medium-term inflation expectations would probably not move into deflation territory and prospects for economic recovery would be such that perceived real returns on fixed investment projects (for example) would remain positive. 'Bad deflation' has broadly the opposite characteristics, and if that is what we see it would increase the real debt burden – possibly in a self-reinforcing way (see Box 4.2). This is the outcome that the Bank of England is determined to avoid. We are relatively confident that the policy measures taken so far (in the UK and abroad, particularly in the US) and the measures probably still to come will work such that 'bad deflation' is avoided.

¹¹ In reaching this judgement, we use a five-equation model that allows us to determine the long-run steady-state levels for key macroeconomic variables. With inflation roughly at target, this steady state has base rates at a 'neutral' level of just over 5¼%.

Box 4.2. A ‘deflation’ scare

With growth forecasts for 2009 being reduced sharply by analysts and institutions, and with inflation on a downward trajectory in most major economies, ‘deflation’ has re-entered discussions on the global outlook.

We think it is likely that UK inflation on the RPI measure will move significantly into negative territory (year on year) and that CPI inflation will dip into negative territory (Figure 4.14).

However, here we would make a qualitative differentiation between ‘good deflation’ and ‘bad deflation’. We expect good deflation, but bad deflation is the outcome that policymakers are determinedly trying to avoid.

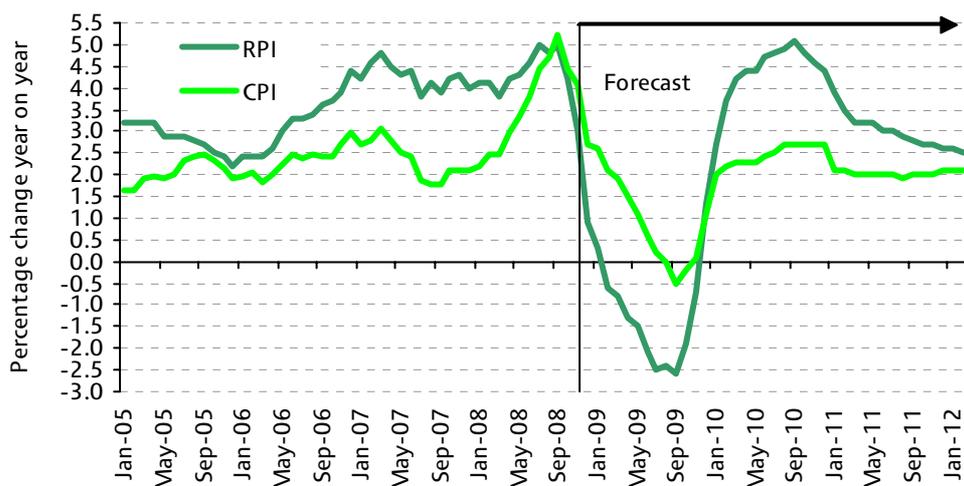
Good deflation: By good deflation, we mean deflation led by cuts in mortgage rates (reflected in RPI) and cuts in energy prices (reflected in both CPI and RPI) as well as falling food prices. These do not primarily reflect lower demand and incomes in the UK economy. These types of falls in prices increase the real disposable income of households – all else equal, they make UK households better off and should spur increases in consumer spending.

Bad deflation: By bad deflation, we mean domestically-generated (endogenous) deflation. In this scenario, lower domestic incomes and lower demand lead to lower prices and sustained or increased deflation. Nominal interest rates cannot (at all easily) be negative, so even at zero interest rates, deflation would imply positive real interest rates and an increased real debt burden that can then curtail domestic demand further, increasing domestically-generated deflation.

A deflation ‘scare’ is likely, and is probably underway already, given the levels of break-even inflation calculated from the difference between nominal government bond yields and yields on real (index-linked) government bonds. These declined dramatically in the latter part of 2008. However, we do not expect a prolonged (or indeed, problematic) period of deflation in the UK:

- UK households are highly leveraged such that any given change in interest rates has a bigger effect on available income. Not only are UK households highly leveraged, but most of this debt is variable-rate debt, much of which is directly tied to the policy rate or (one- to three-year) short-term fixed-rate debt so that policy rate changes hit household incomes relatively quickly. We have seen massive rate cuts from the Bank of England.
- The UK authorities are determined to avoid deflationary outcomes.
- This period of slowdown has not followed a large boom in the UK economy. We believe that there is limited spare capacity in the economy. Without a large overhang of excess capacity, the chances of avoiding bad deflation improve.
- UK financial institutions are writing down debts so that a very prolonged balance-sheet drag from underperforming assets is not likely.
- Sterling has depreciated markedly.

Figure 4.14. Morgan Stanley central inflation forecasts



Sources: ONS; Morgan Stanley Research forecasts.

The transmission mechanism

Bank of England monetary policy remains much harder to operate under recent financial market conditions. Few households and companies explicitly pay or receive the policy rate (although many households hold debt with an interest rate linked to movements in the policy rate). The spread between rates they actually pay and receive and the policy rate has become more volatile since the summer of 2007. This affects the transmission of monetary policy. The 'credit crunch' has also limited the availability of credit such that interest rate changes have a more limited effect on the economy. The large increments with which the Bank of England has moved rates could be seen as one way of getting around problems with the transmission mechanism – using a blunt instrument, but hitting hard. However, without improvements in the availability of credit, the effects of any further rate change on the real economy will be limited.

The Bank of England's reaction function

The Monetary Policy Committee of the Bank of England has cut rates sharply over a relatively short period and in much larger increments than had become usual since it was introduced in 1997. The Bank of England is an inflation targeter, but its mandate allows for a wider focus:

- a) to maintain price stability (where the operational target is 2% CPI inflation at all times); and,
- b) subject to that, to support the economic policy of Her Majesty's Government, including its objectives for growth and unemployment.

The framework also explicitly recognises that actual inflation will 'depart from its target as a result of shocks and disturbances' and that 'attempts to keep inflation at the inflation target in these circumstances may cause undesirable volatility in output'.

The Bank of England has seen such shocks and disturbances impact the economy on a large scale through large moves in commodity prices and the fallout from the financial crisis. The assessed probability distribution of inflation two years or so forward on its (November 2008) fan charts has been sharply lowered compared with the recent past.

The zero bound and unconventional policy measures

Even in our pessimistic case (see Section 4.4), we think that there are reasons why the Bank of England should not lower rates to zero. UK banks have large amounts of short-term variable-rate assets (most UK mortgages are short-term fixed-rate mortgages or variable-rate mortgages – many of which are linked to the policy rate). As the base rate is lowered, banks are largely obliged to pass on much of this. However, their cost of liabilities may be stickier (many deposit ‘current’ accounts, for example, have for a long time only paid low rates of interest).¹² This implies that sharp further cuts in the policy rate could be counterproductive because they could weaken banks and reduce further the supply of new lending.

Having reached whatever lower bound of interest rates it would be comfortable with, where could the Bank of England go next? In 2003, a *Quarterly Bulletin* article reviewed some of the policy options for the operation of monetary policy ‘beyond the zero interest rate bound’.¹³ These include injecting liquidity into the private sector by buying illiquid bonds or private sector assets (specifically, involving the private sector giving up an illiquid asset and taking a more liquid one in return) and intervening in FX markets. The bank has already gone some way down this path with its Special Liquidity Scheme and extended collateral repos. They do not represent outright purchases, however. An additional step would be to buy assets outright, expanding further the Bank of England’s balance sheet. The Bank of England’s balance sheet has already expanded a great deal. We discuss more unconventional measures and ‘solutions’ to current financial system problems in Chapter 8.

4.3 Trend growth and the economic cycle

In this section, we discuss how the UK’s productive potential is likely to evolve and consider whether the sharp slowdown will have a substantial impact on capacity in the medium term. This is a crucial factor behind any assessment of the longer-term sustainability of fiscal policy. An economy’s potential output growth is the best guess at the average growth rate we are likely to experience over a long time horizon; it is a key determinant of future tax revenues. Alternatively, potential output growth can be viewed as the economy’s speed limit; when the economy grows more slowly than the limit set by its potential (or trend) growth rate, in time inflation pressures will tend to be decreasing and the central bank is likely to respond by lowering its policy interest rate. A key question is whether the recession we are now in will have a significant impact on the evolution of the productive potential of the economy.

Potential growth

We can decompose growth in national output into the (weighted) sum of three key components: changes in employment (specifically in the amount worked); changes in the amount of capital per worker (known as capital deepening); and technological progress (also known as growth in total factor productivity, or TFP). To work out the relative

¹² Many deposit balances pay close to zero interest already and, in the interests of building up a more sustainable balance sheet, banks will probably want to encourage depositors at the expense of new borrowers.

¹³ Bank of England, ‘Monetary policy and the zero bound to nominal interest rates’, *Quarterly Bulletin*, Spring 2003.

contribution of these three components, we use a production function, which relates an economy's output to the available inputs (labour and capital) and the existing technology. By using historical data on the evolution of output and inputs such as employment levels and the stock of capital, we can get a sense of the economy's ability – or efficiency – at transforming inputs into outputs (TFP). We can also see how this ability has evolved over time. The key results of this exercise are shown in some detail in Tables 4.1 and 4.2.

Table 4.1 looks at how changes in the supply of labour have contributed to shaping the evolution of UK potential growth. The supply of labour is decomposed into the participation rate, the employment rate and the number of hours worked by employees. The contribution of each of these components towards potential growth is then calculated and shown in Table 4.1. It is evident that rising labour participation and population growth have had a steady and positive influence on UK potential growth. But we expect the contribution of these factors to be lower in the future.

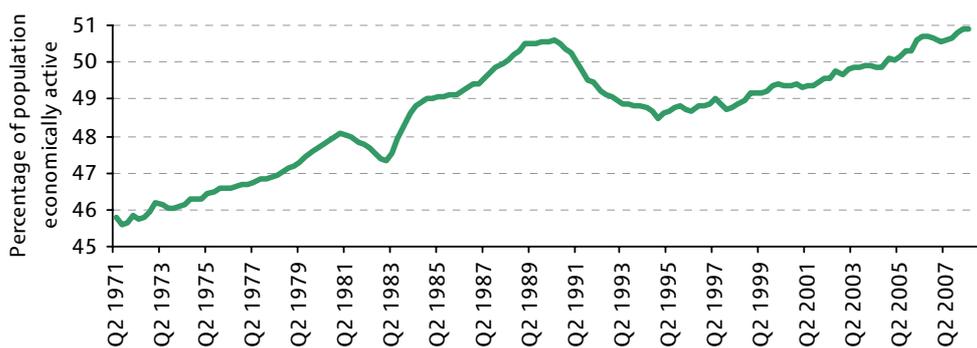
Table 4.1. Potential GDP growth (part one): the contribution of labour inputs

Factors: (percentage point contributions)	Labour participation	Employment rate	Hours worked	Population growth	Total contribution: labour variables and population
1972–2007	0.2	0.0	–0.2	0.2	0.2
1996–2007	0.2	0.2	–0.2	0.4	0.7
2001–2007	0.3	0.0	–0.2	0.5	0.6
2001	0.2	0.2	–0.3	0.4	0.5
2002	0.3	0.1	–0.3	0.4	0.5
2003	0.3	0.1	–0.3	0.5	0.5
2004	0.3	0.0	–0.2	0.5	0.6
2005	0.3	–0.1	–0.1	0.6	0.7
2006	0.3	–0.1	–0.1	0.6	0.7
2007	0.3	–0.1	0.0	0.6	0.8
2008 H1	0.3	–0.1	0.0	0.6	0.8
<i>Forecasts</i>					
2009	0	–0.1	0	0.4	0.3
2010	0	–0.1	0	0.4	0.3
2011	0	0.0	0	0.3	0.3
2012	0	0.0	0	0.3	0.3

Note: The trend rate of the underlying components from the production function is calculated using an HP filter, which aims to decompose output into a permanent ('trend') component and a cyclical factor. Source: Morgan Stanley Research estimates.

Figure 4.15 shows that labour participation has continued to rise. This positive contribution is likely to diminish in the future, as labour participation is unlikely to grow sharply above current levels. This is because much of the increase over the last 35 years has been due to increasing female labour market participation. Also, the baby boomers are now starting to hit the state pension age and therefore are likely to have lower labour market participation rates. Lower growth in net migration may also be a factor here. This is one of the reasons behind our expectation that the overall contribution of labour variables towards potential growth is likely to decline, leading to lower potential GDP growth between 2009 and 2012.

Figure 4.15. Labour participation



Note: We define labour participation as employment plus unemployment (aged 16 years and above) divided by the overall population.

Sources: ONS; Morgan Stanley Research.

Table 4.2. Potential GDP growth (part two): capital deepening and innovation

Factors: (percentage point contributions)	Capital deepening	TFP growth	Total contribution from labour variables and population (from Table 4.1)	Overall potential GDP growth from sum of filtered contributions	Actual observed GDP growth
1972–2007	0.4	1.8	0.2	2.4	2.4
1996–2007	0.7	1.5	0.7	2.9	2.9
2001–2007	0.7	1.3	0.6	2.6	2.5
2001	1.1	1.4	0.5	2.9	2.4
2002	1.0	1.3	0.5	2.7	2.1
2003	0.9	1.2	0.5	2.6	2.8
2004	0.7	1.2	0.6	2.5	2.7
2005	0.6	1.3	0.7	2.6	2.0
2006	0.4	1.3	0.7	2.5	2.8
2007	0.4	1.4	0.8	2.5	3.0
2008 H1	0.3	1.4	0.8	2.5	2.2
<i>Forecasts</i>					
2009	0.0	1.4	0.3	1.7	
2010	0.0	1.4	0.3	1.7	
2011	0.1	1.4	0.3	1.8	
2012	0.1	1.4	0.3	1.8	

Note: The trend rate of the underlying components from the production function is calculated using an HP filter, which aims to decompose output into a permanent ('trend') component and a cyclical factor.

Source: Morgan Stanley Research estimates.

An estimate of TFP growth is shown in Table 4.2 (second column).¹⁴ We find no evidence of a trend rise in TFP growth. Capital deepening seems likely to be hindered by past high oil prices and the credit crunch.

¹⁴ We estimate TFP by using a standard (Cobb–Douglas) production function (for details, see D. Miles with M. Baker and V. Pillonca, 'The economic outlook', in R. Chote, C. Emmerson, R. Harrison and D. Miles (eds), *The*

Our forecasts for labour inputs, capital deepening and TFP growth suggest that after recent potential growth of around 2.5% a year, we may see lower potential growth over the next few years thanks to the lower contributions from capital deepening and labour market variables. Over the past four years, we estimate that productive potential has grown by around 10%; over the next four years, we estimate that this may be around 7%. This means that by 2013 the level of output is about 3% lower than it would have been had recent trends persisted.

The balance of risk for potential growth, however, is not entirely skewed to the downside. Supply-side responses to some of the huge shocks we have seen over the past year may be pro-growth in the medium term. In particular, the hit to household wealth from falls in equities and house prices and a perception by households that their debt levels are too high relative to their incomes may all raise labour supply: for example, those experiencing large negative shocks to their wealth might choose to delay their retirement (see our 'optimistic' case in Section 4.4).

The output gap

The production function approach discussed in the previous section (Tables 4.1 and 4.2) relied on specific economic assumptions.¹⁵ Here we focus on methods that distinguish an underlying trend directly from the actual data on output. In other words, we do not have to make any specific assumptions about the nature of the production function or about what is happening to the labour force or capital stock.

Here we use a statistical approach that is simply based on the path of output to look at economic fluctuations and the dating of business cycles. Figure 4.16 shows the result of this exercise.

The economic cycle is made up of two phases: a period when output is above trend followed by a period when output is below trend. When actual output exceeds potential output, the output gap – the percentage difference between actual output and potential output – is said to be positive. At an on-trend point, the output gap is zero, as actual and potential output are equal.

We compute potential output using simple Hodrick–Prescott (HP) filters. Unlike the production function approach to measuring trend output and spare capacity, this is just a means of fitting a smooth – but changing – pattern of trend growth. We use the filters to see whether the results they generate match our findings from the production function approach, which suggested at best recent potential output of 2.5%, and our forecasts using that production function, which suggest a decline in potential output growth ahead. Running the filtering to Q3 2008 (i.e. not conditional on our forecasts) suggests that potential growth was around 2.4% in the first three quarters of 2008, broadly consistent with the results from our production function approach.¹⁶

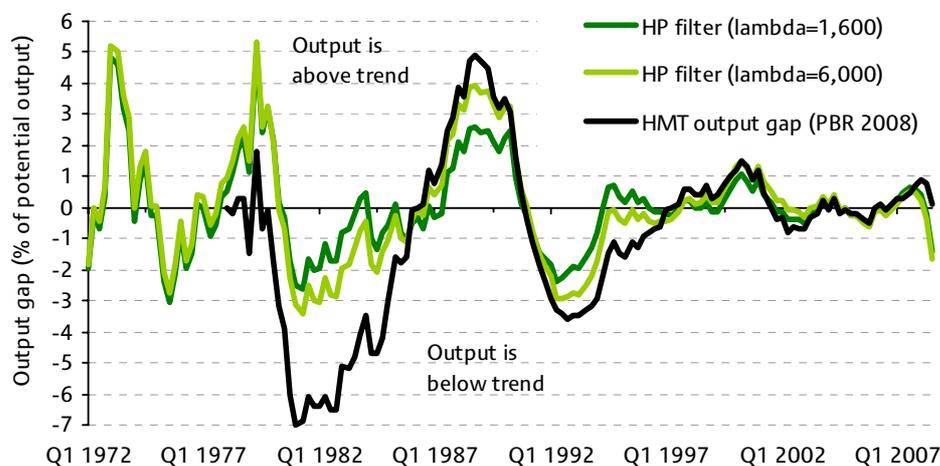
IFS Green Budget: January 2006, IFS Commentary 100, available at <http://www.ifs.org.uk/budgets/gb2006/06chap3.pdf>.

¹⁵ For instance, we assumed a simple Cobb–Douglas specification where technology enters multiplicatively.

¹⁶ Note, however, that running the filter on a GDP series including our forecasts would instead suggest that trend growth was only around 1½% in Q3 2008 and is likely to remain around that level for the next couple of years at least. One property of this filtering technique is significant sensitivity to the last data point. Since the last data point of the forecasts is different from using actual data, this results in a different assessment of potential growth.

Figure 4.16 shows the amount of spare capacity corresponding to these various measures of the trend, and compares it with the Treasury’s own estimate, which tends to show more marked deviations from the trend than the statistical algorithms. The Treasury estimated in November’s PBR that economic activity was around one-tenth above potential in Q3 2008. The Hodrick–Prescott filters suggest a figure closer to –1.4%.

Figure 4.16. Cyclical fluctuations in the UK economy since 1978



Sources: HM Treasury; Morgan Stanley Research.

The Treasury’s current projections of the output gap show the economy returning to trend in 2013. The Treasury assumes that 4% of potential output is lost (between Q3 2007 and Q3 2009) due to financial market turmoil and the recession. Using the HP filter methodology and our own central forecasts for growth, we estimate a loss of potential output of slightly more than 4.0%. We calculate this loss by comparing how the HP filter series evolves from the end of 2007 using our best guess of actual growth with how the filtered series would evolve assuming constant growth in actual output at the same trend rate as on the eve of the slowdown. The tendency of the filtered series to follow the actual series is why the filtering technique allows us to assess how a period of sub-trend growth itself reduces productive capacity. We estimate that this means output is just over 4% lower – though it takes longer for that productive capacity to be ‘lost’ than under the Treasury assumptions.

Dating the cycle

There is inevitably a degree of subjectivity when dating the cycle. That is even the case when using statistical filtering – these show that until recently the economy operated close to trend for several years, with small fluctuations around this trend. This continues to make the identification of distinct cycles particularly hard.

Using an HP filter, the average duration of a full economic cycle has been about six years – less than under the Treasury’s methodology (Table 4.3). Applying a simple HP filter directly on the series of UK output suggests that the economic cycle ended around the third quarter of 2006, meaning the current cycle started in the final quarter of 2006. Applying an HP filter on a series of output including our central forecasts would suggest that the current cycle

started in Q1 2006¹⁷ and will not end until Q3 2011 – a six-year cycle. As ever, there is no single way to date the cycle, and applying different filters and different techniques can lead to different conclusions.

Table 4.3. Dates of full UK economic cycles since 1987

HM Treasury	Statistical filter HP 1,600
1986Q2 – 1997H1 (45Qs)	1987Q3 – 1994Q2 (28Qs)
1997H2– 2006H1 (36Qs)	1994Q3 – 1999Q2 (20Qs)
	1999Q3 – 2006Q3 (29Qs)

Sources: HM Treasury; Morgan Stanley Research.

Conclusion: what is the trend rate of growth now?

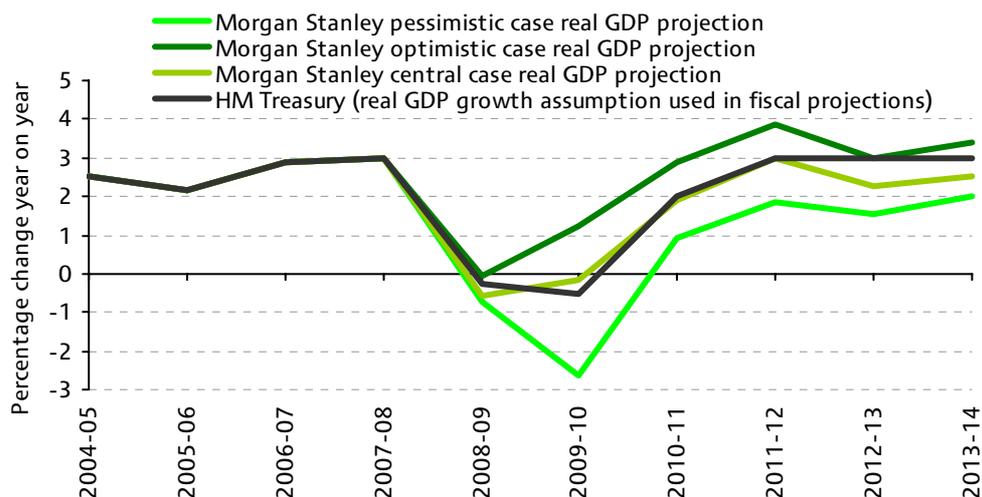
On the whole, both approaches we employed (production-function-based and pure statistical filters) suggest that UK potential output growth is currently around or slightly below 2.5% a year, but it seems likely to slow in coming years. We assume (in line with the Treasury) that this recession will result in a loss of potential output of close to 4.0%.

4.4 Conclusions: three scenarios for the next five years

As benchmarks against which to assess the outlook for the public finances, we present three scenarios for the economy over the next five years – a central case (the single most likely path), a more pessimistic case and an optimistic case. These are shown in Figure 4.17 alongside the Treasury's 2008 PBR forecast. Our central and more pessimistic scenarios differ most with respect to the economy's cyclical position over the next year or so. However, convergence between these two paths is rather slow, reflecting an assumption of a sustained difference in consumer behaviour. The downside 'tail risks' to the UK economic outlook are large such that there is a significant probability that things turn out worse than even in our pessimistic case. We see roughly a 30% probability that GDP growth turns out better than our central case, a 10% probability that growth turns out better than our optimistic case, a 70% probability that things turn out worse than our central case and a 15% probability that things turn out worse than our pessimistic case.

¹⁷ One property of this filtering technique is significant sensitivity to the last data point. Since the last data point of the forecasts is different from using actual data, this results in a slightly different assessment of past cycles.

Figure 4.17. Alternative GDP growth scenarios



Sources: ONS; HM Treasury; Morgan Stanley Research estimates.

Central case

Our central case forecasts – shown in Table 4.4 – assume a recession in the UK economy, such that GDP growth is -0.5% in fiscal year 2008–09 and -0.2% in 2009–10 (in calendar years: +0.7% in 2008, -1.3% in 2009 and +2.0% in 2010). The recovery is relatively subdued but gathers pace over 2011, with growth somewhat above the historical average heading into the ‘Olympic’ period as the pace of growth is temporarily boosted by a more rapid pace of investment.

Table 4.4. Morgan Stanley central case economic projections

	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14
Real GDP (% annual change)	2¾	3	-½	-¼	2	3	2¼	2½
Real consumer spending (% annual change)	2¼	3¼	½	¼	1	2½	2¾	2
Employment (% annual change)	¾	1	-½	-1¼	½	1	¾	¾
CPI inflation (% annual change)	2½	2¼	3½	¾	2½	2	2	2
Output gap (%)	½	1¾	-0	-1½	-1	¼	¾	¾
Saving rate (%)	3¾	1½	0	1	1¾	2	2	2½
Unemployment rate (%)	5½	5¼	6¼	7¾	7½	7½	7½	6½
Productivity growth (% annual change)	2	1¾	¼	1	1¾	1¾	1¾	1¾

Note: The output gap is calculated mechanically using an HP filter on real GDP (including our forecasts).
Sources: ONS; Morgan Stanley Research. 2008–09 onwards are Morgan Stanley Research estimates.

We expect the next two years to be characterised by relatively weak consumer spending growth (contracting in 2009). UK households remain highly indebted, leaving them vulnerable to changes in credit conditions. Household confidence in the underlying

stability of the UK economy (to the extent that it existed) will have been shaken and households have seen a substantial hit to their wealth levels. We think that the saving rate will gradually rise as many households build up their savings to more comfortable levels. We do not expect a sharp increase in the saving rate (which could plunge the UK into a deeper recession).

Residential investment is likely to remain rather weak for a prolonged period, we think, until house prices have bottomed and have begun rising again. There is excess supply in certain areas of new-build housing and credit conditions are unlikely to return to pre-crisis levels (affecting both the supply and demand of new housing), such that we may not see a positive year of residential investment growth until 2011.

The outlook for business investment continues to look bleak in the near term. Surveys indicate a sharp slowing in investment intentions and Bank of England agents report that concerns for future pressures on working capital and the availability of external funds have led to investment plans being cut back. The outlook for demand (external and domestic) is probably still the major factor behind slowing investment, however, and we are cautiously optimistic that this outlook will look brighter as companies look ahead from around the second quarter of 2009. Into 2011, construction may also start to pick up more strongly ahead of the London Olympics.

Net trade makes a neutral-to-positive contribution to GDP growth in 2009 and 2010 on the back of the sharp fall in sterling.

This forecast for the UK economy differs somewhat from that of the Treasury. Our forecasts are similar in the near term, but we forecast somewhat weaker output growth in the latter years of the projection. We think that potential growth is slower as credit conditions remain permanently somewhat tighter than pre-crisis and that 4% or so of productive potential is lost in this downturn (in line with Treasury assumptions).

‘Pessimistic case’

Our pessimistic case – shown in Table 4.5 – is for a deep recession that is roughly comparable to the UK recession of the mid-1970s in terms of the shortfall of output below potential (and where, using our HP filter methodology, we assume that potential growth slows considerably).

Table 4.5. Morgan Stanley pessimistic case economic projections

	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14
Real GDP (% annual change)	2¾	3	-¾	-2¾	1	1¾	1½	2
Real consumer spending (% annual change)	2¾	3¾	0	-2½	-¼	1	1¾	1¼
Employment (% annual change)	¾	1	-½	-2¾	½	½	½	¾
CPI inflation (% annual change)	2½	2¼	3½	-½	¾	1	2½	2
Output gap (%)	¾	2½	1	-2	-1½	-0	¾	1¼
Saving rate (%)	3¾	1½	¼	3	5	6¼	5½	6¼
Unemployment rate (%)	5½	5¼	6½	9¼	9	9	9	8
Productivity growth (% annual change)	2	1¾	¼	¼	¾	1¼	1¼	1¾

Note: The output gap is calculated mechanically using an HP filter on real GDP (including our ‘pessimistic’ forecasts).

Sources: ONS; Morgan Stanley Research. 2008–09 onwards are Morgan Stanley Research estimates.

In this scenario, the household saving rate rises sharply, following a trajectory similar to the early 1990s, when there was a very sharp rise in savings in a few years. On this scenario, there are two years of contraction in household spending and three years of contraction in fixed investment (both residential and business investment contract in 2008, 2009 and 2010). The unemployment rate rises to a 15-year high with unemployment up 1.4 million peak to trough (compared with around 1 million in the early 1990s). UK GDP contracts by 3.2% in 2009.

In this scenario, households in aggregate try to build up their savings rapidly. There are several reasons why this might happen, including the following:

- The baby-boomer generation is nearing retirement and many household pension plans will have been hit by the decline in property and equities (according to an ONS survey of households over 2006–07, 60% agreed with the statement ‘investment in property is the best way to save for retirement’¹⁸). If unwilling to defer retirement plans significantly, households may ramp up sharply their rate of voluntary contributions to pension schemes.
- A large number of households are likely to be in negative equity (or close to it) by the middle of 2009. Many of these households may wish to increase their savings and need to do so rapidly in order to lower their mortgage relative to the value of their property (i.e. their LTV ratio), making it easier to obtain a new mortgage or to retain a mortgage on relatively favourable terms. Some households will have been holding back from selling a property despite a desire to move home, given conditions in the housing and mortgage market. A rise in the number of forced sellers might see such capital injections increase.

¹⁸ <http://www.statistics.gov.uk/pdfdir/wealth0108.pdf>.

Alternatively, if the availability of credit to households and corporates gets significantly worse, an investment- and consumer-spending-led deep recession would probably result.

‘Optimistic case’

A more optimistic path than the central forecast is one where the ‘lost’ output from the period of sub-trend growth is not lost permanently. That happens partly because the supply side of the economy might not have been damaged significantly by the credit crunch (an optimistic view since it assumes that the severe damage to the financial system we are seeing does no lasting damage to productive capacity). In this scenario, summarised in Table 4.6, we assume that households significantly increase their supply of labour, boosting potential output: activity bounces back strongly in 2010 (and beyond) to take GDP back close to an unchanged trend path. While we do not avoid a recession in our optimistic scenario, the recovery is significantly more vigorous (and is ultimately sustainable).

Table 4.6. Morgan Stanley optimistic case economic projections

	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14
Real GDP (% annual change)	2¾	3	–¼	1	3	3¾	3	3½
Real consumer spending (% annual change)	2¾	3¾	¾	¼	1¾	2¾	3	2¾
Employment (% annual change)	¾	1	–¼	¾	1¾	2¼	1½	¾
CPI inflation (% annual change)	2½	2¼	3½	1	2¾	2¼	2½	2
Output gap (%)	½	1½	–½	–1½	–1	½	¾	1½
Saving rate (%)	3¾	1½	0	2	2¾	3½	3	2¼
Unemployment rate (%)	5½	5¼	6	5¾	4½	3¾	3	3
Productivity growth (% annual change)	2	1¾	¼	¼	1¼	1¼	1¾	1¾

Note: The output gap is calculated mechanically using an HP filter on real GDP (including our ‘optimistic’ forecasts).

Sources: ONS; Morgan Stanley Research. 2008–09 onwards are Morgan Stanley Research estimates.

Supply-side responses to some of the huge shocks we have seen may be both pro-growth and supportive of corporate profits. Those huge shocks include: (1) a big fall in equity values; (2) a big fall in house values; (3) a perception by many households that their debt is too big relative to their income; and (4) a potential overhang of some types of residential properties, meaning that construction investment will be low for some years.

Factors 1 and 2 lower household wealth. With household wealth a lot lower, we should expect two things: higher household saving and higher labour supply (factor 3 generates a similar response). Higher saving is negative for growth in the near term (we cannot expect other components of spending to adjust upwards to offset it). But the impact of more labour supply – as people need to work more to replace lost wealth – is ultimately unambiguously positive for economic activity and for corporate profits. It means that the

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capital-labour ratio is lower (boosting the return to capital, reducing real wages and encouraging more investment).

Factor 4 implies that residential construction will be much reduced. The resources used there will be available elsewhere and land prices will likely be lower than they otherwise would have been. These are not negative factors for the (ex-construction) corporate sector.