

Since mid-2007, the world's economies have been hit by major shocks. Developments in the US subprime mortgage market triggered a credit shock that has intensified into the worst global financial crisis for generations, a crisis that is being addressed by a global policy response of unprecedented scale and scope. The surge in commodity prices, which had built over a number of years, peaked in July 2008 and has since reversed.

These economic shocks have affected all countries. The squeeze on real incomes from high commodity prices and the global financial crisis pushed many advanced economies into recession and led a growing number of emerging economies to require financial support from the IMF and other sources.

In the UK and globally, support for the banking system has reduced the risk of systemic failure, but nevertheless growth prospects have deteriorated sharply. After a period of very strong growth, world GDP is forecast to expand by 3½ per cent in 2008 and by just 2 per cent in 2009, with the G7 economies overall forecast to contract in 2009 for the first time since 1982.

In the UK, these shocks struck after a prolonged period of strong and stable growth in output and employment underpinned by low inflation. GDP grew by 3 per cent in 2007 and employment reached a record high of around 29½ million. The global credit shock affected property markets in the UK quickly while the rise in commodity prices until the summer squeezed household real incomes and company profit margins. Together with financial market distress, the combined effect has been to push the UK economy into recession and inflation to a 16-year high.

Lower commodity prices and interest rates, together with comprehensive measures to support the banking system, lay foundations for recovery. Bank Rate has been cut by 2¾ percentage points over the past year and CPI inflation fell from 5.2 per cent in September 2008 to 4.5 per cent in October. In addition, to support real incomes and employment during the recession, the Pre-Budget Report announces timely fiscal policy action including via a temporary cut in the rate of VAT and the bringing forward of public investment spending from 2010-11 to 2008-09 and 2009-10.

Short and medium-term growth prospects in the UK remain subject to exceptional uncertainty. The 2008 Pre-Budget Report forecast has been based on a number of key forecasting judgements, in particular relating to the path of credit conditions back to a new norm and the structural and cyclical implications of the global financial crisis. Against this backdrop of significant policy stimulus and support for real incomes, but exceptional uncertainty, the Pre-Budget Report forecast is for:

- UK GDP growth of ¾ per cent in 2008 with the economy contracting in the second half of the year. The recession is forecast to continue into the first half of 2009, with GDP contracting by -¼ to -¾ per cent in the year as a whole. Thereafter growth is forecast to recover to ½ to 2 per cent in 2010 and 2¾ to ¾ per cent in 2011 as the lagged effects of monetary and fiscal stimulus, lower commodity prices and sterling's depreciation feed through, credit conditions normalise and the UK's flexible markets adjust and bring spare capacity back into productive use; and
- CPI inflation to fall sharply over the coming year as the inflationary pressure from global commodity prices reverses, below-trend output exerts downward pressure on domestically-generated inflation and the temporary cut in the VAT rate is passed through to consumer prices. Thereafter inflation returns close to its 2 per cent inflation target under the influence of offsetting factors.

INTRODUCTION^{1,2}

A.1 This chapter discusses recent economic and financial market developments and provides updated forecasts for the UK and world economies in the period to 2011. It begins with a discussion of the major global economic shocks that have affected the world economy over the past year and the forecasting uncertainties they have generated. This provides the backdrop to the overview of developments and prospects in the world economy, which in turn provides the global context for developments and prospects in the UK economy. The chapter then outlines the UK economic forecast, before concluding with a more detailed discussion of sectoral issues, components of growth and a summary of the forecast issues and risks that are addressed throughout each section.

GLOBAL ECONOMIC SHOCKS AND UNCERTAINTIES

Global economic shocks

A.2 Between the summer of 2007 and summer 2008, the world economy progressively suffered from the unprecedented confluence of two major economic shocks. The global financial markets shock was triggered in July 2007. What began as a disruption to the functioning of specific credit and money markets has spread and intensified to the extent that all financial markets have been affected and financial institutions and financial systems around the world have been put under severe pressure. As a result, credit conditions facing households and companies have tightened very significantly. The availability of credit has been restricted, the terms on lending tightened, and the price of private credit has soared relative to official policy rates and government borrowing costs, factors that have caused growth in advanced and emerging economies to slow significantly.

A.3 The effect of restricted credit on household and company spending was exacerbated by a surge in global commodity prices in the first half of 2008 that put strong upward pressure on food and energy prices around the world. Stresses in financial markets intensified dramatically in September and October, with a number of large and small financial institutions across a broad range of advanced and emerging economies receiving government support, in conjunction with unprecedented generalised support for banking systems across the world. As output growth has slowed in response to these shocks, commodity prices have fallen sharply, thereby removing one of the factors detracting from world growth prospects.

A.4 Developments in global financial markets and global commodity prices over the past year are described in Boxes A1 and A2.

¹ The UK forecast is consistent with National Accounts and balance of payments statistics to the second quarter of 2008 released by the Office for National Statistics on 30 September 2008, and the preliminary estimate of GDP growth in the third quarter released on 24 October. A detailed set of charts and tables relating to the economic forecast is available in *2008 Pre-Budget Report: the economy and public finances – supplementary material* on the Treasury's internet site. Copies can be obtained on request from the Treasury's Public Enquiry Unit (020 7270 4558).

² The forecast is based on the assumption that the exchange rate moves in line with an uncovered interest parity condition, consistent with the interest rates underlying the economic forecast.

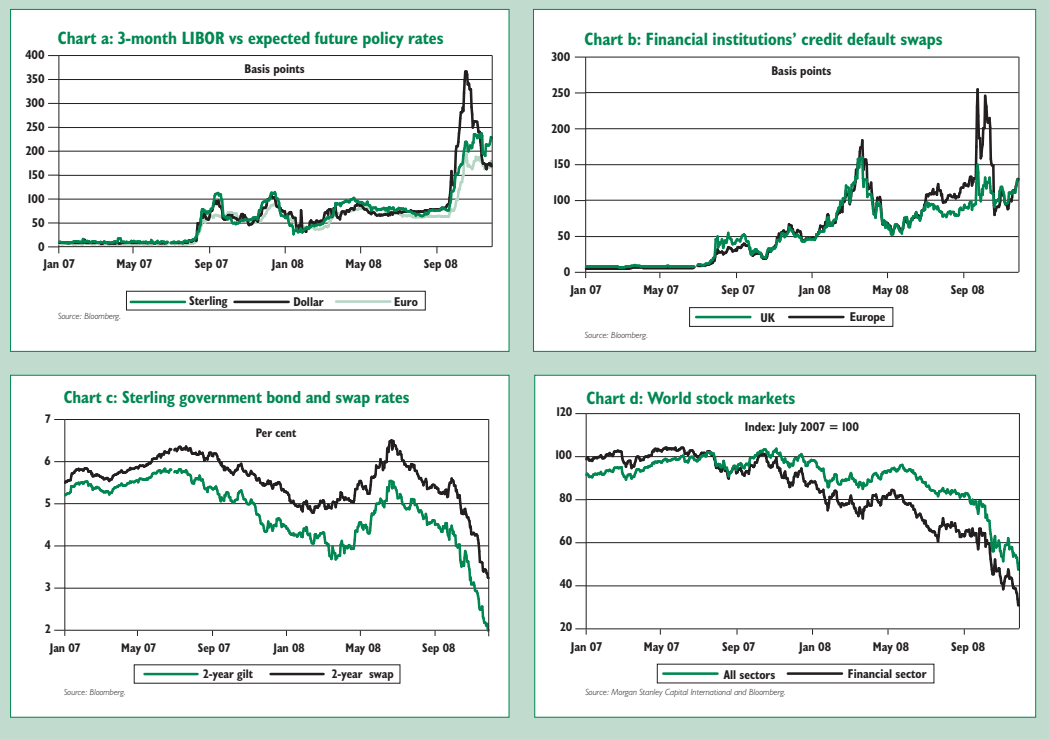
Box A1: Developments in global financial markets

In summer 2007, the announcement of unanticipated losses on assets related to US subprime mortgages, where default rates had risen sharply, triggered adverse market conditions across an array of credit and money markets. Spreads on asset-backed securities and interbank lending rates moved up very sharply relative to risk-free interest rates.

Since then, financial markets have experienced periods of greater and lesser stress, though always at levels far in excess of those seen in recent years. Following the rescue of Bear Stearns in the US on 16 March, money markets and banks' credit default swaps showed severe strains building (charts a and b). Concerted global liquidity provision, including via the Bank of England's Special Liquidity Scheme, helped to ease those strains. Government bond yields increased as high commodity prices raised concerns over inflation prospects (chart c).

On 15 September 2008, the US investment bank Lehman Brothers filed for bankruptcy and Bank of America acquired another US investment bank, Merrill Lynch. The failure of Lehman Brothers proved the catalyst for a dramatic intensification of the credit shock into the worst global financial crisis for generations. Strains in money markets increased sharply, with little activity beyond overnight maturities and spreads rising to unprecedented highs. As concerns about recession replaced concerns about inflation in investors' perceptions, government bond yields declined and world stock markets fell (chart d).

On 8 October, the UK Government announced comprehensive measures to address the liquidity, capital and funding issues that were worsening the distress in financial markets, and central banks implemented a coordinated cut in interest rates. Following the announced measures, credit default premia on UK financial institutions eased significantly and interbank lending rates began to fall. The 1 1/2 percentage point cut in Bank Rate on 6 November was followed by significant falls in interbank lending rates, although the spread over expected policy rates remains high.



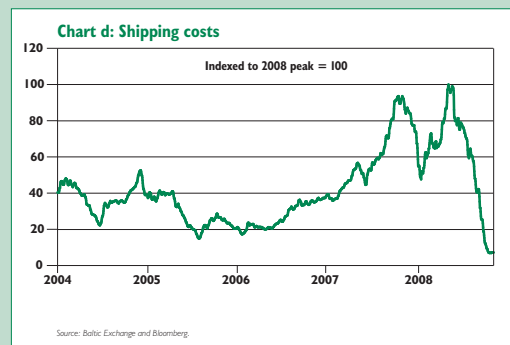
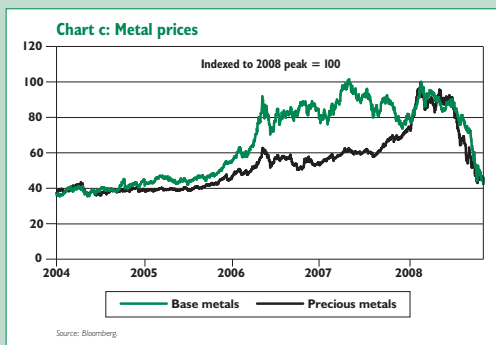
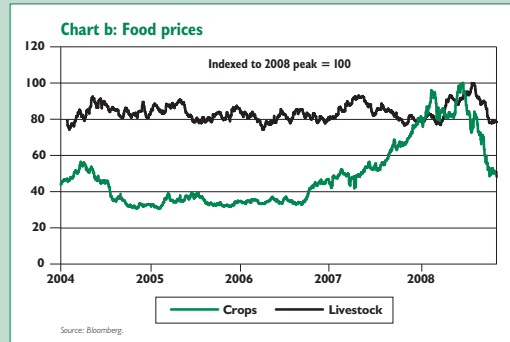
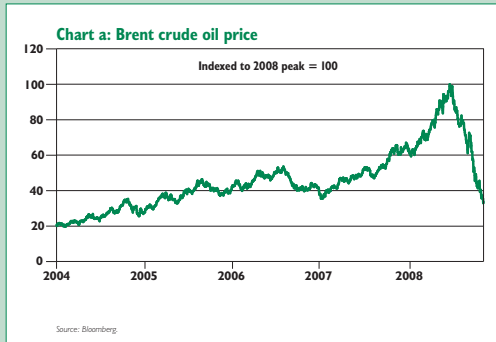
Box A2: Developments in global commodity markets

The price of a barrel of Brent crude oil, the European standard, increased from around \$75 a barrel in July 2007 to peak at \$146 on 3 July 2008 (chart a), a record high in real and nominal terms, surpassing the oil price shocks of the 1970s. Since July, oil prices have fallen back sharply to around \$50 a barrel in response to concerns about falling demand in the advanced economies, and increased supply, despite OPEC having cut its production quota by 1.5 million barrels a day.

Prices of agricultural commodities picked up sharply during the first half of 2008 amid trade restrictions imposed by major exporters and tight supplies (chart b). Wheat prices reached record-high nominal levels in early March, while meat and poultry prices increased due to higher animal feed costs. Agricultural commodity prices have also fallen back since the summer.

In metals markets, demand for copper and aluminium has weakened along with industrial activity in 2008, but supply from key producers has been adversely affected by disruptive power shortages, shoring up prices. In contrast, rising production and declining demand have caused zinc and nickel prices to fall sharply. Base metals prices could fall further in line with expectations of weakening global industrial production.

Driven by high raw material demand and port congestion, mainly in Australia, shipping costs reached unprecedented heights in the first half of 2008 (chart d). Since May, prices have fallen by over 90 per cent due to reduced demand, notably from China for Brazilian iron ore, the easing of port congestion, and worsening access to trade credit and insurance facilities.



Economic shocks and uncertainty

A.5 The combination of major economic shocks and the unprecedented global policy response to the banking crisis has generated exceptional uncertainties for households, businesses and governments across the world, and therefore economic forecasts. Forecasts made at times when economies are reaching cyclical peaks or troughs typically exhibit larger errors than those when developments are more stable, even at times when underlying supply potential remains steady. Given the current context of shocks that are likely to affect supply potential as well as demand, current economic forecasts inevitably involve an even greater reliance on judgement.

THE WORLD ECONOMY**Overview**

A.6 Global economic prospects have been hit hard since summer 2007, and particularly since Budget 2008. The credit shock described above caused credit conditions to tighten across advanced economies and growth to slow. The surge in commodity prices in the first half of 2008 lifted inflation, squeezing real incomes and pushing many advanced economies into recession. The escalation of the global banking crisis in recent months has increased uncertainty over prospects for growth in advanced economies and the risk of contagion to emerging markets. But the global financial policy response has limited the downside risks from systemic banking collapse, and an increasing number of countries have eased monetary policy and announced fiscal stimulus measures. At the same time, lower commodity prices should provide support for real incomes next year.

A.7 Against the backdrop of major economic shocks, world growth is forecast to have slowed to 3½ per cent in 2008 and to fall to just 2 per cent in 2009. That would represent a serious slowdown from the 4¾ per cent expansion in 2007, reflecting slower domestic demand growth in advanced economies and weaker trade growth around the world. Growth across the G7 economies is forecast to have slowed to 1 per cent this year, and to turn negative in 2009, the first year of contraction since 1982. Many advanced economies are already experiencing falling output, with the euro area and Japan in recession.

A.8 The outlook for world trade has deteriorated in line with world growth prospects, exacerbated by the effect of the global financial crisis on the availability of trade finance. UK export markets are expected to grow more slowly than world trade as advanced economies, particularly the euro area and US, make up a larger proportion of UK export markets.

Table A1: The world economy

	Percentage change on a year earlier, unless otherwise stated				
	2007	2008	Forecast		
			2009	2010	2011
World GDP at purchasing power parity	4¾	3½	2	3¾	4½
<i>Major 7 countries¹:</i>					
Real GDP	2¼	1	-¾	1½	2½
Consumer price inflation ²	3	2¾	1¼	2	2
Euro area GDP	2¾	1	-1	1	1¾
World trade in goods and services	7	5¼	2	4¼	7
UK export markets ³	6½	3¾	½	3¼	6

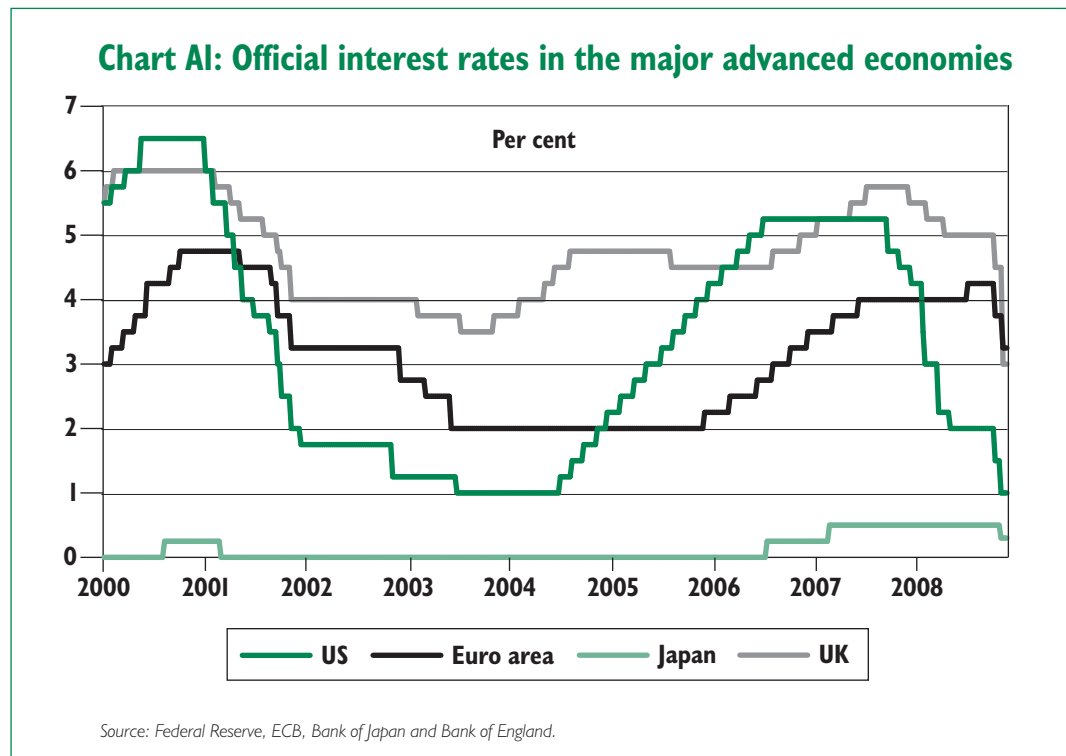
¹ G7: US, Japan, Germany, France, UK, Italy and Canada.

² Per cent, Q4.

³ Other countries' imports of goods and services weighted according to the importance of imports from the UK in those countries' total imports.

A.9 Inflation, which picked up in the first half of 2008 following the surge in commodity prices, is expected to moderate quickly towards the end of the year. G7 inflation is forecast to hit an 8-year low of 1¼ per cent by late 2009. The inflation outlook for emerging economies is less clear, as many currencies have depreciated rapidly and a number of monetary policy frameworks are not yet well established.

A.10 Receding inflation risks in the G7 countries have provided greater scope for monetary easing. On 8 October, six major central banks, including the Federal Reserve, European Central Bank (ECB) and Bank of England, announced a coordinated ½ percentage point interest rate cut. Subsequently, the Federal Funds rate was cut further to 1 per cent, down from a peak of 5¼ per cent prior to the onset of the global credit shock, and official interest rates have been reduced to 3¼ per cent in the euro area, 0.3 per cent in Japan and 3 per cent in the UK. As set out in Chapter 3, G20 leaders, at their summit on 15 November, agreed a broader policy response, based on closer macroeconomic cooperation, to restore growth, avoid negative spillovers and support emerging markets and developing countries. This includes using fiscal measures to stimulate domestic demand to rapid effect, as appropriate, while maintaining a policy framework conducive to fiscal sustainability.



Prospects for 2010 and beyond

A.11 While growth in 2009 is likely to be very weak, the foundations for recovery are in place. Lower commodity prices are expected to feed through to lower inflation, boosting real incomes, and monetary and fiscal policy support is forthcoming across a large number of advanced and emerging economies. Though there are risks to the outlook, notably over the duration of strains in banking systems, prospects for recovery in 2010 and 2011 appear reasonably well founded, and world output growth is forecast to rebound to 3¼ per cent in 2010 and 4½ per cent in 2011.

Advanced economies

Euro area **A.12** After unexpectedly strong growth in the first quarter of 2008, euro area output has since contracted, with the economy in recession for the first time since the euro area's inception in 1999. Private consumption fell during the first half of the year as rising inflation reduced real purchasing power. Investment also dropped sharply after a strong first quarter as tighter lending conditions, falling global demand and housing market adjustments in some Member States acted to limit activity.

A.13 Headline inflation increased sharply through 2008 to reach over 4 per cent in July, prompting the ECB to increase interest rates by a $\frac{1}{4}$ percentage point to $4\frac{1}{4}$ per cent on 3 July. Since then, inflation has started to ease as commodity prices have fallen. Interest rates currently stand at $3\frac{3}{4}$ per cent following consecutive $\frac{1}{2}$ percentage point cuts on 8 October, as part of the coordinated global rate cut, and 6 November.

A.14 The euro area is expected to begin to recover in the second half of 2009. Consumer spending is expected to fall in the near term as tighter lending conditions, deteriorating consumer sentiment and a weakening labour market more than offset the improvement to purchasing power from lower inflation. Investment is also set to adjust sharply as housing market corrections in some economies coincide with weak and uncertain demand prospects and reduced access to finance. Since Budget 2008, the consensus forecast for euro area GDP growth in 2009 has been revised down by 2.1 percentage points to a contraction of 0.2 per cent. From 2010, as credit conditions ease, policy stimulus takes hold and spare capacity is brought back into productive use, growth is expected to pick up progressively towards trend rates. With fiscal policy responses evolving, the prospect of greater fiscal stimulus supporting earlier or stronger recovery represents an upside risk to these forecasts.

United States **A.15** The US outlook has deteriorated substantially. Strong GDP growth in the second quarter of 2008 was almost entirely reliant on two factors: the fiscal stimulus Congress passed in February, and net exports, bolstered by past dollar depreciation. Since then the stimulus from the February fiscal package appears to have waned, US export markets have slowed in line with global developments and the dollar has appreciated significantly. Households have suffered substantial falls in wealth from falling house prices and equity markets, along with declining real incomes and rising unemployment. Consumer confidence has deteriorated dramatically, and private consumption, which accounts for around 70 per cent of demand in the US economy, contracted sharply in the third quarter. Consequently, GDP fell 0.1 per cent in the third quarter.

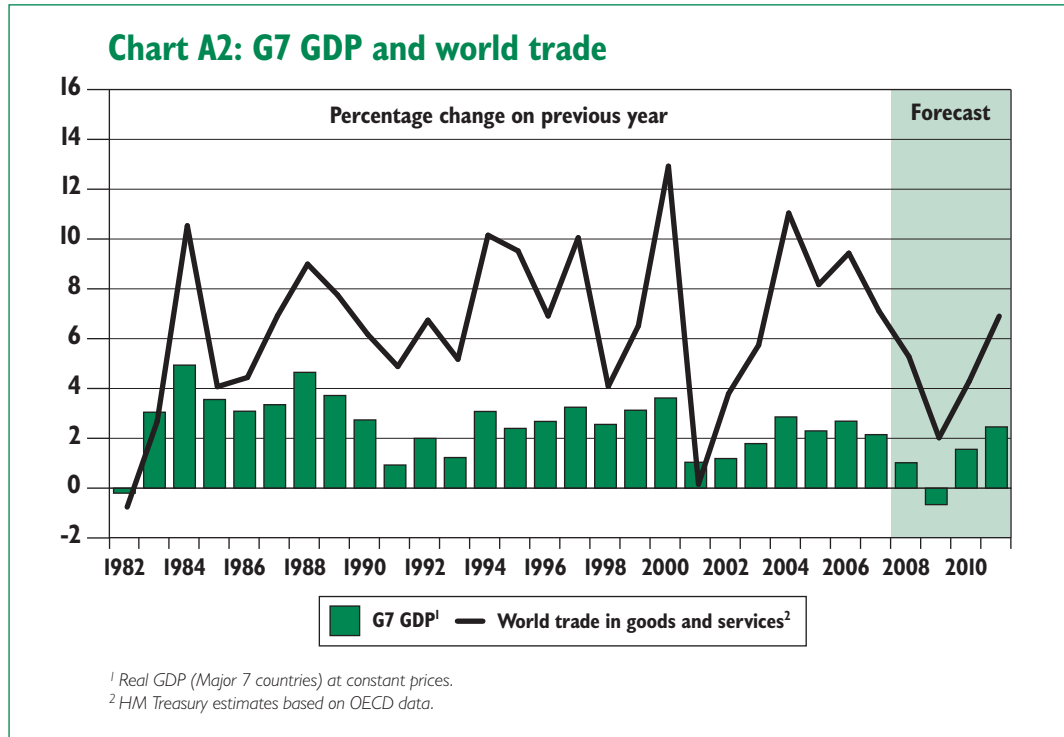
A.16 Even after substantial fiscal, monetary and financial policy support, it now looks inevitable that the US economy has entered recession in late 2008. Business investment and private consumption are expected to contract further over the coming year as credit conditions remain tight and the labour market continues to deteriorate. The broad global downturn and recent appreciation of the dollar are expected to weigh on US export performance. Forecasters have cut their US GDP growth estimates for 2009 from 2.6 per cent at the time of Budget 2008 to a contraction of 0.6 per cent, as analysts have factored in the impact of the financial crisis and considered the rapidly deteriorating data.

A.17 The boost to real incomes from sharply lower inflation, plus likely further fiscal stimulus – President-elect Barack Obama has indicated that he will introduce a further fiscal stimulus, probably in time for when he takes office in January 2009 – should support recovery from later in 2009 and into 2010.

Japan **A.18** The Japanese economy moved into recession in mid-2008 as falling business investment and export volumes, reflecting slowing global demand and a strongly appreciating currency, pulled GDP growth lower. Increased financial market volatility and uncertainty over

demand prospects are likely to mean that GDP growth will remain sluggish through 2009. Since Budget 2008, the consensus forecast for growth has been revised down from 1.4 per cent to 0.6 per cent for 2008 and from 1.9 per cent to a contraction of 0.1 per cent for 2009.

A.19 Headline inflation reached 2.3 per cent in July 2008, largely accounted for by upward pressure from food and fuel prices. The recent moderation in commodity prices means that headline inflation is likely to have peaked. The policy interest rate is currently 0.3 per cent, leaving little room for further loosening.



Emerging economies

A.20 Emerging markets are now experiencing the impact from the global slowdown and global credit shock. Growth in larger emerging economies is expected to slow to below recent strong rates, while the risk of much sharper contraction in smaller emerging economies has increased significantly. Countries with large current account deficits and external financing needs are particularly vulnerable. Prospects for 2010 and 2011 are highly uncertain, with a broad range of possible outcomes for emerging markets, both individually and as a group.

A.21 While falling commodity prices are reducing inflationary pressure across emerging markets, a large-scale capital flight has taken place as investors in advanced economies have acted to increase liquidity and reduce their exposure to perceived higher-risk assets. These capital movements have exposed vulnerabilities in many emerging markets. A number of countries have become at risk of a full-scale economic crisis and have sought assistance from the International Monetary Fund (IMF), which is currently engaged in various negotiations to provide financial support to help stabilise those economies. More countries may need to follow this route. The effects of the global financial crisis on emerging markets is discussed further in Chapter 3 of the Pre-Budget Report.

Emerging Europe and Russia

A.22 Recent booms in many emerging European countries were driven by cheap and plentiful credit. This led to overheating in some economies, adding to underlying inflationary pressures, lifting asset prices and, in some countries, leading to the accumulation of large

current account deficits, raising the risk of a hard landing. In Russia, this has coincided with rapid growth in personal credit. Growth in Russia and other big resource exporters, like Ukraine, is expected to weaken in 2008 and 2009 as a result of the higher cost of and reduced access to finance, and falling commodity prices.

Emerging Asia A.23 China and India are likely to experience a more significant slowdown than forecasters were expecting earlier in the year, largely due to weaker export prospects, though both have recently cut interest rates to support growth. China, with \$1.9 trillion reserves and strong domestic demand, is expected to remain relatively insulated from global conditions. The Chinese government is well placed to support the economy, and has recently announced a substantial fiscal stimulus package focused primarily on infrastructure investment. The Indian economy is more exposed, with domestic demand at risk from a domestic liquidity crunch and delayed investment. Relatively high public borrowing means that the Indian government's fiscal policy options are constrained. Most countries in emerging Asia are likely to see a significant slowdown in growth as a result of falling foreign direct investment (FDI) inflows and reduced demand for their exports.

Latin America A.24 In Latin America, the global financial market stresses, together with tighter domestic credit conditions and lower commodity prices, point to a more pronounced slowdown than expected at the time of Budget 2008, with the possibility of sharp contractions in some countries. Growth in Brazil is expected to moderate from the strong pace of recent years, but the government has scope for policy intervention to support the economy. Mexico, Central America and the Caribbean are particularly exposed to the US slowdown through reduced remittances, FDI inflows and exports. Lower commodity prices are exacerbating macroeconomic imbalances in Argentina, Ecuador and Venezuela, all countries that have previously experienced periods of external debt crisis and default.

Global imbalances

A.25 Movements in commodity prices have heavily influenced developments in global current account imbalances during 2008. Many commodity-exporting countries have seen already large current account surpluses increasing, while deficits have increased in a number of importing countries, largely due to oil trade deficits. Some commodity-importing emerging economies have seen a degree of rebalancing of current account surpluses, due to both the higher oil price and stronger domestic demand.

A.26 Looking ahead, prospects for domestic demand growth in large deficit and surplus countries point to the ratio of global imbalances to GDP declining overall, though the IMF has identified three key challenges to this benign outcome.³ First, the adjustment of the dollar has mainly been against a number of flexibly managed currencies, while some major currencies continue to be tightly managed or pegged to the dollar, which could create new imbalances over time. Second, the challenges facing commodity exporters for recycling petrodollars remain significant. Third, persistent imbalances, coupled with economic slowdowns, may give rise to protectionist pressures, which if not resisted would damage world growth prospects. In addition to these factors, as discussed in *The case for a concerted international fiscal response*, published alongside the Pre-Budget Report, fiscal measures being taken by many governments around the world could also affect current account imbalances.

³ In Chapter I of *World Economic Outlook*, International Monetary Fund, October 2008.

World trade and UK export markets

World trade **A.27** World trade growth has been very strong since 2005, averaging almost 8 per cent a year, with the largest contributions coming from emerging economies in Central and Eastern Europe, and in Asia. World trade growth is set to slow substantially, in line with slower world GDP growth. The slowing could be exacerbated in the near term by the global financial crisis, with anecdotal evidence that the system of trade finance through letters of credit has been disrupted. The slowdown is expected to be broad-based across all regions of the world. As world output growth picks up from late 2009, world trade flows are expected to respond, with growth approaching historical averages by 2011.

UK export markets **A.28** UK export markets growth is forecast to slow more sharply than world trade growth, given the greater weight of advanced economies in the UK's export markets. UK export markets are forecast to grow by 3¾ per cent in 2008 and just ½ a per cent in 2009, a large downward revision of almost 6 percentage points compared with the Budget 2008 forecast. The recent strong import demand from Europe is not expected to continue in 2009, while recession in the US is also likely to reduce demand for UK exports. In 2010, UK export markets are expected to rebound in line with the recovery of domestic demand in Europe and the US described above.

THE UK ECONOMIC FORECAST

The Treasury's approach to economic forecasting

A.29 Economic forecasting inevitably involves judgement about the uncertain path of future events. The following paragraphs set out the Treasury's general approach to economic forecasting. Given the nature of the global financial market shock that has broadened and intensified since Budget 2008, and the scale of the global macroeconomic and financial policy response, the judgements and assumptions on which the 2008 Pre-Budget Report forecast are based are subject to exceptional uncertainty.

Growth cycle approach **A.30** The Treasury's approach to forecasting macroeconomic developments, set out in detail in Budget 2007,⁴ accords with the growth cycle approach favoured by many policymakers. The essential building blocks of this approach are estimates of the 'trend' level and rate of growth of output, and analysis of cyclical movements around that trend, the 'output gap'.⁵ The trend output projection provides the medium-term anchor for the forecast. The current output gap estimate, and an assessment of the economy's momentum based on analysis of individual output, income and expenditure components of activity, informs judgement on the path of the economy back towards trend.

Implications of global shocks for the Treasury's approach to forecasting **A.31** The growth cycle approach is normally underpinned by a view that markets function properly, allowing resources to be reallocated to new activities in line with changing price signals. The implications of the severe disruption in global financial markets for the efficient allocation of credit are clearly negative. While this process of credit allocation is impaired, economic forecasts are subject to additional uncertainties relating to the speed and extent to which the economy can adjust to changing circumstances. The longer this impairment persists, the greater the risk that the period of adjustment could have permanent effects. This generates uncertainties over the impact on the economy's supply potential. The growth cycle approach has provided the framework within which the Treasury's forecast judgements on this issue, set out below, have been made.

⁴ See paragraphs B.30 to B.35 of Budget 2007.

⁵ The Treasury assesses trend output growth on the basis of non-oil gross value added (GVA) rather than overall GDP because, while the oil and gas sector affects output, it has little direct impact on capacity pressures in the rest of the economy, and hence the sustainable level of non-oil economic activity and employment.

Treatment of uncertainty in the forecast **A.32** The Treasury has typically adopted two approaches to treating uncertainties in economic forecasts. Firstly, the average absolute forecast errors from past forecasts are always presented alongside the latest forecasts, as in Table A9 in this annex. Secondly, uncertainties relating to the world economy and financial markets, the balance of demand and supply, individual components of demand and policy developments are discussed in the text on economic developments and prospects. Discussion of risks and uncertainties has been increasingly prominent since the financial market shock hit prior to the 2007 Pre-Budget Report, and is a feature throughout this annex.

A.33 There are alternative approaches to treating uncertainty in economic forecasts. In the context of the role of the Treasury's forecasts in underpinning fiscal projections, the Treasury has considered these alternatives and, as set out in Box A3, has concluded that bolstering its existing approach is the most appropriate method of presenting the exceptional uncertainties surrounding the outlook set out in this Pre-Budget Report. For the purpose of this Pre-Budget Report, the Treasury has maintained its usual forecast ranges, which represent alternative assumptions about the supply-side performance of the economy, not forecast uncertainties. The external forecasts reviewed at the end of this annex give a sense of the magnitude of current forecast uncertainties.

Box A3: How to reflect uncertainty in economic forecasts

There are many approaches to communicating the uncertainty inherent in economic forecasts. The Treasury typically publishes information on past forecast errors, as in Table A9, and a full discussion of the risks to the economic forecast in each Budget and Pre-Budget Report. Some external organisations illustrate forecast uncertainty using different methods, often assigning specific values to the probability of GDP growth being above or below a certain rate. These probabilities can be formulated in a number of ways:

- past forecast error distributions can be projected into the future to produce a range of possible outcomes around the central forecast;
- simulations from econometric models can be used to gauge the probability of certain outcomes;^a
- they can purely reflect the subjective judgement of the forecaster; or
- they can represent some combination of these approaches.

The Bank of England’s fan charts provide an example of the combined approach. The calibration of uncertainty is based on forecast errors over the preceding 10 years, adjusted to reflect the Monetary Policy Committee’s collective judgement about the risks to the forecast.^b

Past forecast errors are typically used to generate probability distributions around forecasts on the grounds that the errors summarise the risks inherent in the forecasting model as well as the effects of past economic shocks. However, there are significant limitations to a purely statistical approach in the context of economic forecasts, and especially so in the context of fiscal forecasts and judgements:

- frequency distributions and models based on past experience will fail to account properly for rare, high impact events: future shocks cannot, by definition, be forecast, and those that are rare or unprecedented imply a hidden randomness not apparent in past data;
- as the structure of the economy changes over time, models run the risk of centring forecasts on an outdated view of the economy’s underlying structure; and
- the results depend heavily on the subjective choice of the central forecast, meaning that forecasting judgements remain a key source of uncertainty.

For the 2008 Pre-Budget Report, the Treasury has chosen to bolster the discussion of the risks surrounding forecasting judgements and economic prospects. Despite differing approaches, this expanded discussion reflects the same factors that have driven most forecasters to widen the range of expected possible outcomes over recent months. For example, in the Bank of England’s November *Inflation Report*, the fan charts were widened and the MPC noted that “*the heightened level of uncertainty means that the Committee has more confidence in the broad shapes of the fan charts than the precise calibrations.*”^c

^a For example, see ‘Prospects for the UK economy’, Kirby, S., Barrell, R., Fic, T. and Oraganzi A., *National Institute Economic Review No.206*, October 2008.

^b See ‘The Inflation Report projections: Understanding the fan chart’, Britton, E., Fisher, P. and Whitley, J., Bank of England Quarterly Bulletin, February 1998, for a detailed explanation of the MPC’s fan charts.

^c *Inflation Report*, Bank of England, November 2008.

Overview of recent developments

Credit conditions **A.34** The prospective impact of the global credit shock on the credit conditions facing households and companies was the key forecasting assumption underpinning the Budget 2008 economic forecast. With evidence that the intensity and duration of the negative impact would be greater than assumed at the time of the 2007 Pre-Budget Report, the Budget 2008 forecast was conditioned on an updated forecasting assumption that credit conditions would remain strained through the first half of 2008, would start easing during the second half and would only normalise by mid-2009. That assumption was viewed as consistent with progressively greater information disclosure by the world's financial institutions helping the price discovery process in the credit markets that were then strained. This key assumption was subject to great uncertainty and was therefore set out transparently to ensure that as events continued to unfold it would be clear whether the assumption was proving valid.

A.35 There is no single measure that captures the evolution of the global credit shock and its implications for credit conditions facing households and companies, but one commonly used indicator is the spread of interbank lending rates over market expectations of policy interest rates.⁶ Since the disruption in global financial markets was triggered in July 2007, this indicator, shown in Chart A3, has provided an illustration of the varying degrees of stress in money markets and the banking system.

A.36 At the time of Budget 2008, the sterling spread stood at around 60 basis points,⁷ so a path consistent with the Budget forecasting assumption on credit conditions would have seen the spread hold at around that level until mid-2008 before easing slowly to closer to its historical average by mid-2009, though remaining above the levels of early 2007. The events described in Box A1 quickly overtook the Budget assumption. In particular, after the rescue of Bear Stearns in March, strains in money markets intensified and the spread increased to more than 100 basis points. Then, having stabilised at around 70 to 80 basis points between May and mid-September, the spread increased very sharply after the failure of Lehman Brothers in September, reflecting more generalised systemic distress.

A.37 Following the Government's announced measures of support for the banking system in October, and November's 1½ percentage point cut in Bank Rate, sterling interbank lending rates have fallen by more than 2 percentage points. However, the spread over expected policy rates has remained high as investors have marked down their policy rate expectations on the back of downgraded assessments of prospects for growth and inflation in the UK.

GDP growth **A.38** In 2006 and 2007, GDP grew by 2¾ and 3 per cent respectively. Reflecting the impact on the economy of the major shocks it has faced, growth has slowed progressively as credit conditions tightened and real incomes were squeezed by high commodity prices. Quarterly GDP growth in the first half of 2007 averaged 0.8 per cent, before slowing progressively to average 0.6 per cent in the second half and 0.1 per cent in the first half of 2008. In the third quarter, GDP contracted by 0.5 per cent, the first fall in output since 1992, with negative growth across most sectors of the economy. The distribution sector experienced the largest contraction, consistent with discretionary spending having been held back as consumer sentiment weakened and real incomes were squeezed.

⁶This indicator is typically proxied by the spread between the 3-month London interbank offered rate (LIBOR) and the 3-month overnight index swap (OIS) rate, where the rate on an overnight index swap reflects the market's expectation of what overnight interest rates will average over the period of the contract.

⁷A basis point is equal to 0.01 percentage points.

A.39 Private sector business surveys weakened further in October, suggesting that output in the final quarter of 2008 is likely to fall again, placing the UK economy in technical recession. Surveys of purchasing managers compiled by the Chartered Institute of Purchasing and Supply indicate that output growth in the manufacturing, construction and services sectors was very weak. Similarly, the Economic Sentiment Indicator compiled by the European Commission fell to its lowest level since 1991.

Labour market developments

A.40 Strong output growth in 2007 fed through to strong employment growth, with employment rising by more than 100,000 a quarter from the second quarter of 2007 to the first quarter of 2008. As output growth has slowed, employment flattened in the second quarter and fell by around 100,000 in the third quarter.

A.41 Unemployment has begun to increase, with the Labour Force Survey (LFS) measure of the unemployment rate rising from 5¼ per cent to 5¾ per cent over recent months. The more timely claimant count measure has risen by 186,000 since the start of the year, though from a very low level: January 2008 was the first time since mid-1975 that the claimant count had fallen below 800,000.

Inflation

A.42 In common with experience across the world, UK inflation increased during 2008 as the surge in global commodity prices fed through to retail prices of food, petrol and diesel, and household energy bills. In the UK, CPI inflation increased from 2.2 per cent in December 2007 to a peak of 5.2 per cent by September 2008 before falling back to 4.5 per cent in October. Movements in prices of goods that are most closely linked to global commodity prices accounted for virtually all of the increase: food price inflation increased from 6 per cent in December to a peak of 14½ per cent in August; petrol and diesel price inflation increased from 17 per cent to a peak of 26 per cent in July; and household energy price inflation increased from -7 per cent to 39 per cent in October.

A.43 With commodity prices having fallen sharply since the summer, petrol and diesel prices have already declined by 12 per cent and food price inflation appears to have passed its peak. The effects of lower house prices and Bank Rate cuts have pushed RPI inflation below CPI inflation for the first time in six years.⁸

A.44 As sterling has depreciated significantly over the past year, import prices have been a source of inflationary pressure, with imported goods price inflation rising from 6½ per cent in December 2007 to 14 per cent in September 2008. Producer price inflation followed a similar pattern through the year. Input price inflation increased from around 13 per cent in December to a peak of 34 per cent in June before easing significantly to 14 per cent by October. Output price inflation picked up from less than 5 per cent to 10 per cent in July and currently stands at 7 per cent.

A.45 Much of the rise in inflation has been accounted for by frequently purchased items, and survey measures of shorter-term inflation expectations have unsurprisingly tended to move up in step with actual inflation. It is too soon to be sure whether falls in petrol prices and the easing of food price inflation will fully reverse the rise in short-term inflation expectations, but the latest monthly surveys from GfK and YouGov/Citigroup have been encouraging. The latter reported inflation expectations over the coming year falling from 4.4 per cent in the September survey to 2.9 per cent the following month. Survey measures of firms' pricing intentions have also receded.

⁸ The RPI measure of retail prices includes categories for housing costs and mortgage interest payments that are not included in the CPI measure of consumer prices. These are not, though, the only differences between the CPI and RPI measures of inflation. More information on CPI and RPI can be found on the UK Statistics Authority website, www.statistics.gov.uk

Property markets **A.46** Property markets in the UK have been adversely affected by the global credit shock, which has sharply curtailed the availability of finance for residential and commercial property purchases. These adverse effects have been broadly based, with house prices lower since the beginning of 2008 across all regions of the UK and commercial property prices down sharply across the commercial, retail and industrial sectors.

Monetary policy **A.47** Since the onset of the global credit shock in summer 2007, the Monetary Policy Committee (MPC) of the Bank of England has cut Bank Rate by a cumulative 2¾ percentage points, from 5¾ per cent to 3 per cent. On 8 October, the MPC cut rates by ½ a percentage point as part of a globally coordinated interest rate cut, and then on 6 November it reduced Bank Rate by a further 1½ percentage points to 3 per cent, the lowest rate since 1955. With inflationary pressures easing and weaker near-term UK growth prospects, financial markets have increasingly come to expect further monetary policy easing. This trend has been evidenced by the lowering of external forecasters' expectations of Bank Rate by the middle of 2009 to below 2 per cent.

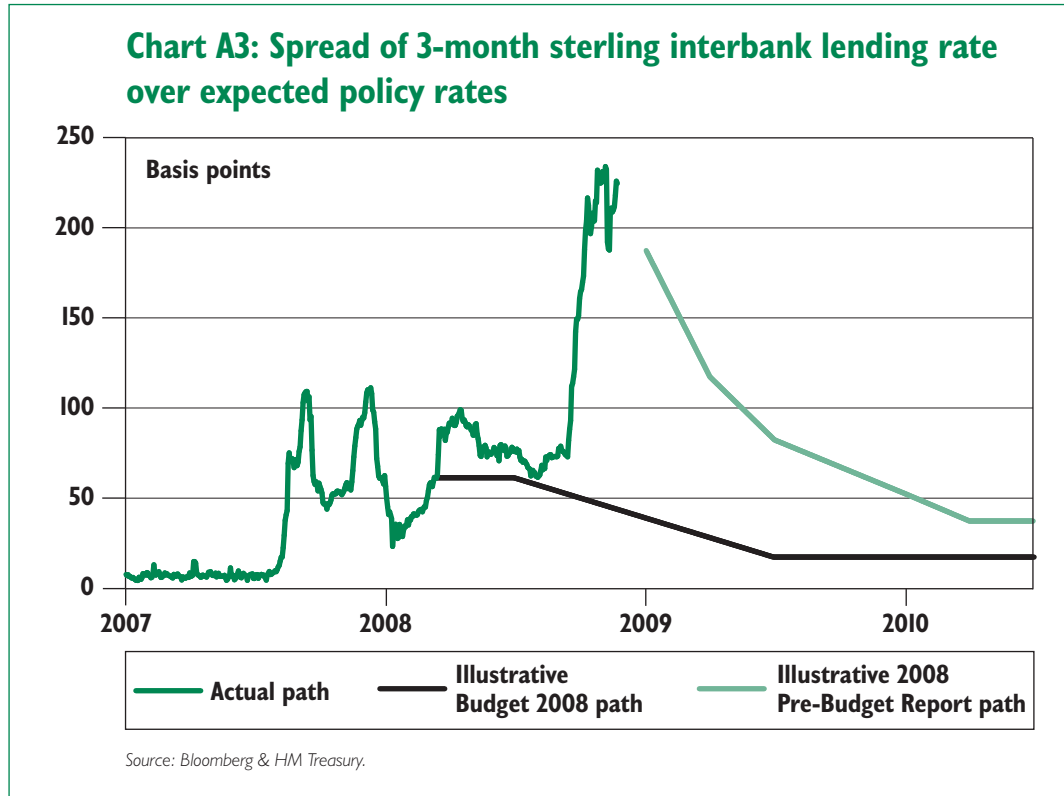
Sterling **A.48** The combination of financial sector fragility and increasing risk premia demanded on sterling assets, UK growth prospects being revised down and expectations of substantial further monetary policy easing over the coming year has been associated with significant depreciation of sterling. Overall, the sterling exchange rate index has declined by over 20 per cent since its peak in the summer of 2007 and by around 11 per cent since the beginning of August 2008. The Government's objective is for a stable and competitive exchange rate in the medium term, consistent with meeting the inflation target.

Prospects for credit conditions

Forecasting judgement **A.49** As was the case at Budget 2008, the key forecasting assumption underpinning the 2008 Pre-Budget Report forecast concerns prospects for the unwinding of tight credit conditions and normalisation of banking and financial markets. As set out above, conditions in global markets deteriorated dramatically in September and October. Following unprecedented global policy action in recent weeks, money markets have stabilised and the risk of systemic failure of the global financial system looks to have receded, but global credit markets have remained severely strained with stock markets falling sharply and some markets remaining closed.

A.50 Despite extensive government support for financial systems worldwide, it will take time for conditions to normalise, and recent experience is likely to mean that 'normal' credit conditions will be materially less accommodative than they were in the years to mid-2007. The 2008 Pre-Budget Report forecast is therefore conditioned on the assumption that credit conditions will remain tight in 2008, and ease slowly through 2009 before stabilising in 2010 at a level where risk is more appropriately priced. This assumption is consistent with a view that the value of underlying property collateral will have stopped falling around the end of 2009 and that lower policy interest rates and funding costs will enable banks to lend profitably, bolstering their capital positions. These developments should allow lenders to return to a normal process of intermediating funds from savers to borrowers, while pricing risk competitively, but more warily, so as to avoid the mistakes of recent years. The Government's comprehensive package of measures to support the banking system should limit the downside risks to this assumption, enhancing prospects for credit conditions to ease over the coming year.

A.51 Chart A3 shows the actual spread between interbank lending rates and expected policy rates against illustrative paths representing the 2008 Budget and Pre-Budget Report forecast assumptions for credit conditions more broadly. However, the interbank spread only picks up the price dimension of factors influencing credit conditions faced by households and companies: it does not capture the important quantity effects of credit rationing.



Assessment of trend growth

A.52 This section first reviews recent developments against the Treasury’s Budget 2008 trend growth assumptions, before discussing the 2008 Pre-Budget Report forecast judgements on trend output to reflect the impact of the global credit shock.

National Accounts revisions

A.53 Looking back, the 2008 Blue Book revisions to National Accounts data imply a somewhat stronger trend rate of output growth between the on-trend points in 1997 and 2001 than was set out at the time of Budget 2008, reflecting upward revisions to non-oil GVA growth over the period. The Blue Book data confirm that trend output growth between the on-trend points in 2001 and 2006 was 2.7 per cent a year, validating the Treasury’s 2¾ per cent a year assumption for the period, which has been maintained since it was first set out in Budget 2002.

- Population growth** **A.54** Latest ONS estimates indicate that net inward migration increased to 237,000 in 2007, somewhat above the projection set out by the Treasury at the time of the 2006 Pre-Budget Report. More recently, there have been signs of a slowdown in net migration from the new EU Member States. In particular, the number of National Insurance applications from A8 and A2 citizens⁹ has levelled off since the final quarter of 2007 and the number of approved applications to the Worker Registration Scheme has declined since mid-2007. Set against these trends, data on the number of visits to the UK by A8 nationals picked up in the first half of 2008.
- Labour market** **A.55** As set out in Budget 2008, the projected change in the age structure of the adult population means that, on an adult population basis, the trend employment rate is projected to decline slightly over the forecast horizon. The adult employment rate picked up during the first half of 2008 to just over 60¼ per cent, before subsequently falling back slightly in the third quarter to close to its estimated trend level, consistent with the expected lagged response of the labour market to changes in output growth.
- A.56** The fall in average hours worked since the start of 2008 implies that they are currently close to their estimated trend level, assuming a trend rate of decline of a ¼ per cent a year post 2006, in line with the trend over the second half of the economic cycle that ended in 2006.
- Productivity growth** **A.57** Revisions in the 2008 Blue Book suggest that productivity grew by just over 2 per cent a year between the on-trend points in 2001 and 2006, slightly below the Budget 2008 estimated trend rate. Average productivity growth subsequently slowed from the second half of 2006 as total hours continued to grow at above-trend rates. As set out in Box A4, the global credit shock has significantly increased the uncertainties surrounding trend productivity and it is therefore difficult to assess to what extent lower rates of productivity growth over the course of 2007 and 2008 are likely to reflect cyclical or structural developments. Challenges in decomposing recent developments into cyclical and structural elements are likely to persist for some time.

⁹The 'A8' refers to the eight Central and Eastern European countries – the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia – that joined the EU in May 2004 alongside Cyprus and Malta, whose citizens already had the right to work in the UK. The 'A2' refers to Bulgaria and Romania, which joined the EU in January 2007.

Box A4: Economic shocks and potential output

As with other aspects of economic forecasting, recent economic shocks, in particular the global financial crisis, have generated uncertainties over prospects for trend output,^a the assessment of which plays a central role in the Treasury’s approach to forecasting. Theoretically, credit or commodity price shocks could affect trend output in a number of ways.

The global credit shock is likely to increase the price of credit, thereby raising the cost of capital, which would lead to a downward adjustment in the stock of capital in the economy and so to a lower level of trend output. To the extent that the pricing of risk was unsustainably low before the onset of the credit shock, this effect could be persistent. More generally, the shock is likely to reduce the supply of credit, by impairing the pivotal role that the financial system plays in intermediating funds from savers to investors and spreading concentrations of risk. This reduces the efficiency of the process by which producers bring together ‘factor inputs’ – labour, capital, raw materials, energy – to their most productive use, with a subsequent impact on the level of trend output.

Developments in commodity markets could also have implications for trend output. The shock to commodity prices has reversed significantly since the first half of 2008, but the price of oil has in general trended upwards over the past few years and remains high by historical standards. To the extent that this is reflected in higher costs of inputs of production rendering certain activities uneconomic, trend output would be affected as the capital stock adjusts to a lower equilibrium.

Further uncertainties surround the prospects for trend population growth. Aggregate net migration in 2007 was somewhat higher than the projection set out by the Treasury at the time of the 2006 Pre-Budget Report.^b Looking forward, a slowdown in economic activity could be associated with weaker net migration over the next few years, although it is not clear whether any prospective reduction would be indicative of cyclical or more structural factors.

^a A number of commentators and policymakers have highlighted the implications of the credit shock for potential output. For example, in a recent speech, the Governor of the Bank of England noted “...the credit crunch affects not just demand but also the supply potential of the economy” (Speech by the Governor of the Bank of England to the Confederation of British Industry, Institute of Directors, Leeds Chamber of Commerce and Yorkshire Forward, 21 October 2008). Similarly, former member of the MPC, Willem Buiter, suggested in a recent article that “...credit conditions can influence potential supply even in the short run” (Financial Times, 19 October 2008).

^b *Trend growth: recent developments and prospects*, HM Treasury, December 2006.

2008 Pre-Budget Report projection

A.58 As set out in Box A4, there are a number of channels through which the global credit and commodity price shocks could reduce the level of trend output. In light of commodity price developments since July 2008, credit related channels are the most likely to have persistent effects to trend output. Table A2 presents estimates of trend output growth and its decomposition to the second half of 2006, and the Treasury’s projections thereafter. For the 2008 Pre-Budget Report, to take account of the likely negative effect of the credit shock on trend output, a phased reduction to the trend level of productivity (and therefore the trend level of output) of about 4 per cent has been assumed over the two years from mid-2007, a period consistent with the credit conditions assumption that underpins the economic forecast more generally. This adjustment is within the range of external estimates of the impact of the shocks to credit and energy markets on medium-term potential output,¹⁰ though it is a key forecasting judgement around which there is very considerable uncertainty. The Treasury will continue to keep its trend output assumptions under review.

¹⁰ External estimates of the impact of the credit and commodity price shocks on the level of trend output range from 2 per cent up to around 6 per cent, depending on the assumptions used. See, for example, *The budgetary implications of global shocks to cycles and trends in output: impacts of housing, financial and oil shocks*, Barrell, R. and Kirby, S., October 2008; *The implications of supply-side uncertainties for economic policy*, OECD Economic Outlook No.83, June 2008; and, *Economic Forecast*, European Commission, Autumn 2008.

Table A2: Contributions to trend output growth^{1,2}

	Estimated trend rates of growth, per cent per annum					Trend output (6)
	Trend output per hour worked ^{3,4}		Trend average hours worked ⁴ (3)	Trend employment rate ⁴ (4)	Trend Population ⁵ (5)	
	Underlying (1)	Unadjusted (2)				
1986Q2 to 1997H1						
Budget 2008	2.12	1.93	-0.11	0.37	0.26	2.46
Latest data	2.13	1.95	-0.11	0.36	0.26	2.47
Over the recent past						
1997H1 to 2001Q3						
Budget 2008	2.86	2.61	-0.45	0.49	0.51	3.17
Latest data	3.12	2.87	-0.46	0.50	0.52	3.45
2001Q3 to 2006H2						
Budget 2008	2.26	2.21	-0.31	0.09	0.75	2.76
Latest data	2.12	2.07	-0.26	0.11	0.75	2.68
Projection⁶						
2006H2 onwards						
Budget 2008	2.25	2.30	-0.25	-0.1	0.8	2¾
PBR 2008 ⁷	2.25	2.30	-0.25	-0.1	0.8	2¾
PBR 2008 level effect from 2007Q3 to 2009Q3 ⁸	-4	-4	0	0	0	-4

¹ Treasury analysis based on judgement that 1986Q2, 1997H1, 2001Q3 and 2006H2 were on-trend points of the output cycle. Figures independently rounded. Trend output growth is estimated as growth of non-oil gross value added between on-trend points for the past, and by projecting components going forward.

Full data definitions and sources are set out in Annex A of 'Trend growth: new evidence and prospects', HM Treasury, December 2006.

² Interim projections between Budget 2002 and PBR 2007 were provided in an expanded table in 'Budget 2008: the economy and public finances – supplementary material'.

³ The underlying trend rate is the unadjusted trend rate adjusted for changes in the employment rate, i.e. assuming the employment rate had remained constant. Column (1) = column (2) + (1-a).column (4), where a is the ratio of new to average worker productivity levels. The figuring is consistent with this ratio being of the order of 50 per cent, informed by econometric evidence and LFS data on relative entry wages.

⁴ The decomposition makes allowances for employment and hours worked lagging output. Employment is assumed to lag output by around three quarters, so that on-trend points for employment come three quarters after on-trend points for output, an assumption which can be supported by econometric evidence. Hours are easier to adjust than employment, and the decomposition assumes that average hours worked lag output by just one quarter, though this lag is harder to support by econometric evidence.

⁵ UK resident household basis. Population aged 16 and over.

⁶ Neutral case assumptions for trend from 2006H2.

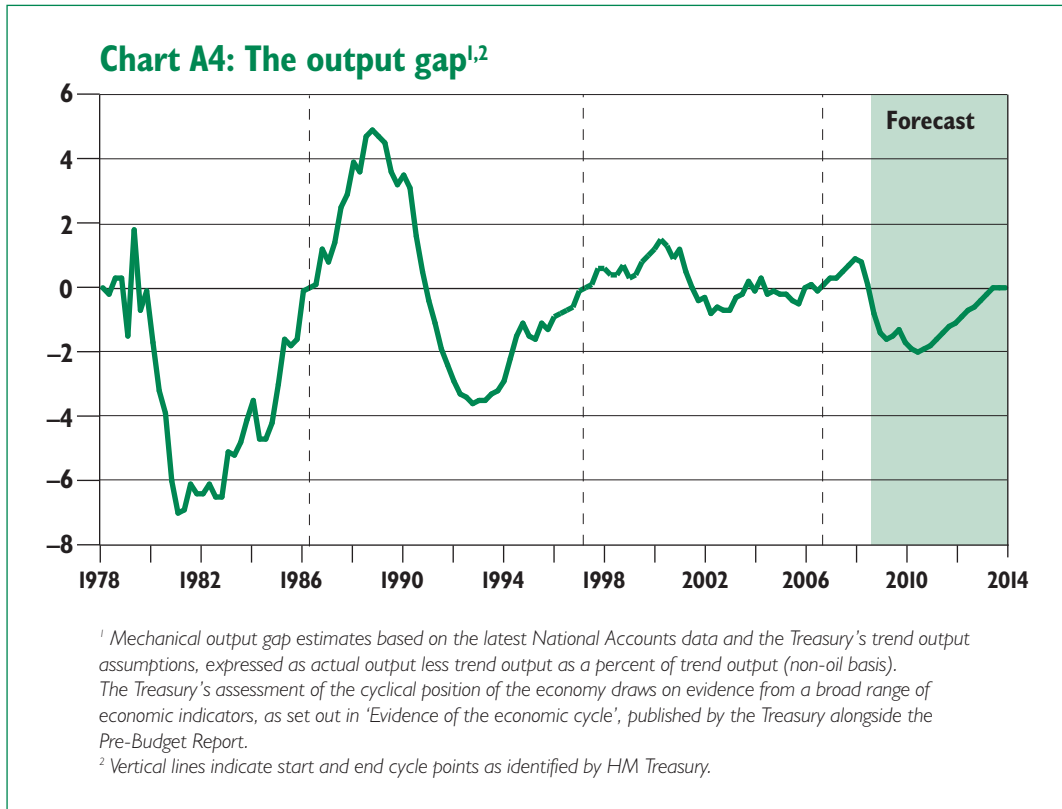
⁷ Underlying trend assumptions around which the mid-points of the GDP forecast growth ranges from 2006H2 are anchored.

⁸ Adjustment reflecting a phased reduction to the level of trend output of around 4 per cent between mid-2007 and mid-2009.

Assessment of the output gap

National Accounts revisions and latest data

A.59 The 2008 Blue Book revisions to recent National Accounts data were relatively small, with non-oil GVA growth in both 2006 and 2007, of 3 per cent, still estimated to have been at an above-trend rate. Since the beginning of 2008, growth has slowed to below-trend rates of 0.3 per cent and 0.0 per cent in the first two quarters of the year, before falling to -0.5 per cent in the third quarter. Taken together with the 2008 Pre-Budget Report assumptions on trend output, this would imply that the economy was recently operating close to trend, with an output gap of around zero in the third quarter of 2008.



Evidence from the cyclical indicators

A.60 Evidence from the broad range of cyclical indicators monitored by the Treasury continues to support the Budget 2008 assessment that the economy passed up through trend during the second half of 2006, marking the end of the economic cycle judged to have started in the first half of 1997, as set out in Box A5. The cyclical indicators suggest the economy remained above trend during 2007 before falling back towards trend during the first half of 2008.

A.61 Evidence from quarterly business surveys conducted by the Confederation of British Industry (CBI) and British Chambers of Commerce (BCC) suggests that capacity utilisation rates have recently been at levels near to or below their long-term averages, and that a degree of labour market slack opened up in 2008. The Bank of England's Regional Agents have reported significant declines from above-average capacity utilisation rates since late 2007, and that since the second half of 2007 labour market conditions have eased more swiftly than shown in the BCC survey.

A.62 The unemployment rate has increased from 5¼ per cent at the end of 2007 to 5¾ per cent. Demand for labour has dropped, with the number of vacancies in the economy declining from the peak in March 2008. Average earnings growth has remained stable and subdued, with private sector earnings growth in the third quarter, excluding bonuses, of 3½ per cent on a year earlier.

Uncertainty relating to the economy's cyclical position

A.63 As set out above, the Treasury's forecasting judgements on the impact of the credit shock on trend output are subject to significant uncertainty. This has implications for assessing the balance between cyclical demand and potential supply, and hence prospective inflationary pressures and the labour market implications of the economic downturn. In terms of cyclical pressures, signals conveyed by the Bank's Regional Agents and the BCC and CBI quarterly business surveys do not deliver a clear picture of the degree of slack that has been generated by slowing growth over the past year. The evidence from the cyclical indicators is in general supportive of the assessment that the economy was recently operating close to trend, but clear uncertainties remain.

Box A5: Treasury judgement on the end of the economic cycle

Since Budget 2008, Blue Book revisions to National Accounts data show below-trend non-oil GVA growth of 0.4 per cent in the third quarter of 2006 and above-trend growth of 0.9 per cent in the fourth quarter. This, alongside evidence from a broad range of cyclical indicators suggesting that the economy was close to trend during the second half of the year, but not unambiguously discriminating between the third and fourth quarters of 2006 as on-trend points, suggests the economy passed up through trend during the second half of 2006.

The latest evidence from the cyclical indicators continues to suggest that the economy moved up through trend during the second half of 2006 and that the economy subsequently remained above trend during 2007. In particular:

- private sector business surveys of capacity utilisation picked up during the second half of 2006 to levels close to or above their long-term averages, and in a number of cases had moved to levels seen at the last point when the economy clearly moved upwards through trend in the first half of 1997;
- labour market data, supported by evidence from private sector business surveys, suggest that the slack in the labour market evident towards the end of 2006 diminished over subsequent quarters, which, taking into account the lags between output and the labour market, is consistent with output moving upwards through trend at some point during the second half of 2006; and
- annual CPI inflation excluding energy and seasonal food, a proxy for domestically generated inflation, increased steadily from 1.3 per cent in the second quarter of 2006 to 2.2 per cent a year later, although official earnings growth remained relatively subdued over the period.

Taken together with the latest National Accounts data, the evidence from the range of cyclical indicators supports the assessment that the economic cycle judged to have started in the first half of 1997 ended during the second half of 2006.^a Uncertainties continue to surround this assessment, in particular those relating to further possible revisions to National Accounts data. As set out in Chapter 2, the National Audit Office has audited the Treasury's judgement that the last economic cycle ended in the second half of 2006.

^a More details of the Treasury's assessment of the economic cycle are set out in *Evidence on the economic cycle*, published alongside the Pre-Budget Report.

GDP and inflation forecasts

Factors underpinning demand prospects **A.64** Lower commodity prices and easing inflation are set to support real incomes in 2009, sterling has depreciated, and monetary and fiscal policy have both been eased to support the economy through the downturn. Together these factors lay the foundations for recovery. Uncertainty remains over how effectively the global financial crisis can be resolved and therefore how soon the financial system can resume its normal function of intermediating funds from savers to borrowers, in order efficiently to finance investment, house purchase and consumption and spread concentrations of risk.

GDP growth **A.65** Having slowed progressively over the past year, GDP is forecast to fall by a ¼ per cent on a year earlier in the second half of 2008, leaving output in 2008 as a whole up ¾ per cent on a year earlier. The recession is forecast to continue into the first half of 2009, before GDP growth begins to recover in the second half of the year as credit conditions start to ease and the boost to real incomes from lower commodity prices, the stimulus from monetary and fiscal policy, and the effects of sterling's depreciation, take hold.

A.66 Growth in 2009 as a whole is forecast to be negative, at $-1\frac{1}{4}$ to $-3\frac{3}{4}$ per cent. The effect of fiscal stimulus, particularly the temporary cut in the VAT rate and bringing forward of public investment to 2008-09 and 2009-10, in addition to other measures, is assumed to reduce the extent of the downturn by around $\frac{1}{2}$ a percentage point. The UK also has relatively powerful automatic stabilisers, which will operate in full to support the economy. In response to rising unemployment, as set out in Chapter 5 of this Pre-Budget Report, the Government has announced an ambitious package of measures to ensure that those facing redundancy and those seeking employment are helped back into work as quickly and efficiently as possible.

A.67 Credit conditions are assumed to settle at a new norm in 2010, such that the process of efficient credit allocation is restored and the UK's flexible markets can adjust more effectively to changed economic circumstances. As lagged effects feed through, including from fiscal and monetary stimulus and from the depreciation of sterling, growth is expected to pick up progressively through 2010 and 2011 to a little above trend rates. Experience of past recoveries points to the possibility that, once recovery has taken hold, growth could continue at strong rates for a number of years as spare capacity is brought back into productive use. For example, GDP growth averaged $3\frac{1}{4}$ per cent a year in the five years from 1982 and again in the five years from 1993.

Table A3: Summary of forecast¹

	2007	Forecast			
		2008	2009	2010	2011
GDP growth (per cent)	3	$\frac{3}{4}$	$-1\frac{1}{4}$ to $-3\frac{3}{4}$	$1\frac{1}{2}$ to 2	$2\frac{3}{4}$ to $3\frac{1}{4}$
CPI inflation (per cent, Q4)	2	$3\frac{3}{4}$	$\frac{1}{2}$	$2\frac{1}{4}$	2

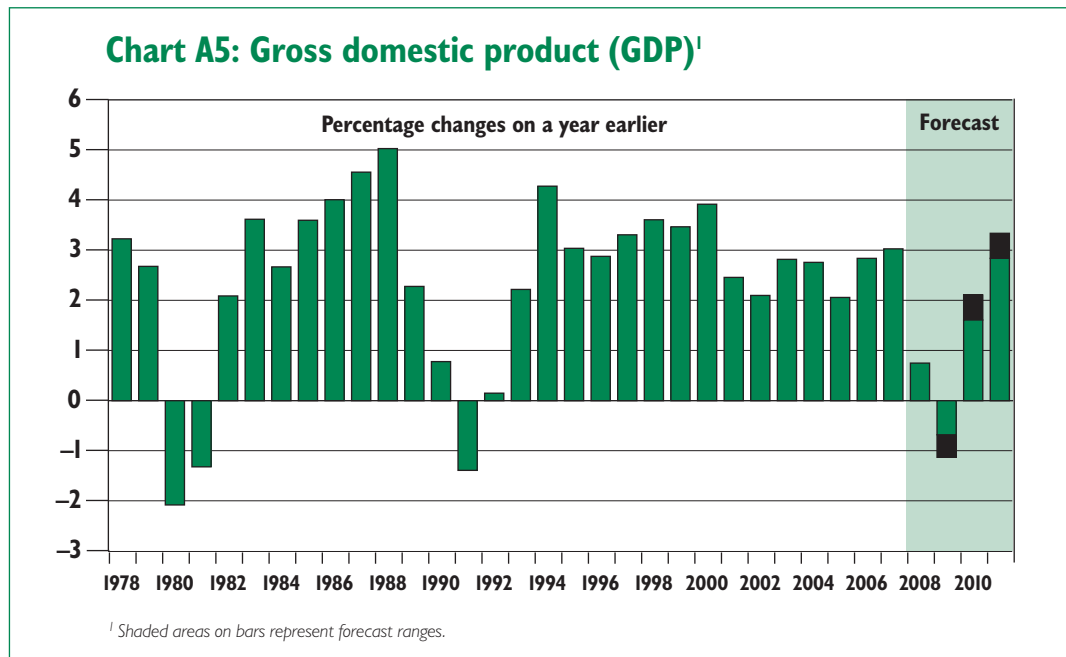
¹ See footnote to Table A9 for explanation of forecast ranges.

Comparison with past recessions

A.68 With GDP forecast to contract in 2009, it is natural to compare the coming downturn with past periods of falling output. While there are similarities in the prospects for growth, the current contraction is different in origin, which should have implications for the subsequent recovery. The late 1970s oil price shock, and the late 1980s overheating domestic economy, generated high inflation, which reached 20 per cent in 1980 and 10 per cent in 1990. High retail price inflation quickly fed through to high wage inflation because inflation expectations were poorly anchored. In order to bring inflation under control, interest rates were raised sharply, peaking at 17 per cent in 1980 and 15 per cent in 1990, while in 1981 fiscal policy was tightened significantly. The ensuing recessions were, in that respect, domestically generated. In early 2007, the economy was operating close to trend, inflation was close to target and interest rates were below 6 per cent.¹¹

A.69 The trigger for this downturn was the unprecedented confluence of the severe shock to the global financial system and record high commodity prices, with oil prices doubling in the year to July 2008. One of these factors, high commodity prices, has already reversed, while global policy action, in many aspects modelled on the UK Government's response described in Chapter 3, has reduced the downside risks from the global financial crisis, although strains in the financial system remain severe.

¹¹ At the November Inflation Report press conference, the Governor of the Bank of England noted that "One of the big differences between then [the early 1980s and early 1990s] and now – between those recessions and now – is that because inflation has been kept under control and we have a monetary policy framework which I think is credible, that it is possible to take quick and substantial action on interest rates in order to ameliorate the effects of a prospective recession and to head off the worst outcomes. That wasn't always possible in the past because of concerns about inflation. It is now."

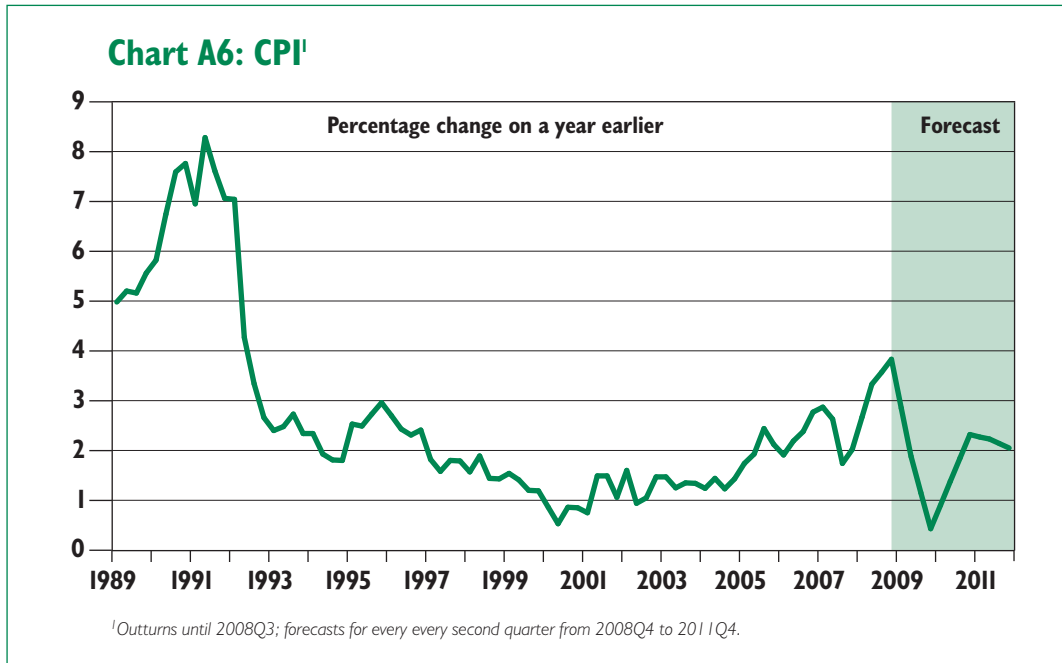


CPI inflation A.70 CPI inflation fell from 5.2 per cent in September to 4.5 per cent in October, suggesting September marked the peak. Global commodity prices have fallen sharply since the summer, which should feed through to consumer prices for petrol, food and household energy with varying lags. Energy prices contributed more than 2 percentage points to CPI inflation in September 2008, which means that even if energy prices were to remain unchanged from that level, by September 2009 they would subtract around 1 percentage point from the annual rate of inflation.¹² In addition, with output contracting there is a degree of spare capacity opening up that will progressively reduce domestically generated inflationary pressure.

A.71 Commodity price developments and the emergence of a negative output gap would suggest that inflation will decline rapidly from above 5 per cent to reach the target rate by the middle of 2009, although the pass-through from sterling's depreciation will exert upward pressure. In addition, the temporary reduction of the VAT rate from 17½ per cent to 15 per cent from December 2008 is expected to put further downward pressure on inflation as businesses pass the cut through to prices. The forecast assumes that due to the competitive nature of the UK retail sector, especially during the coming downturn, the majority of the VAT rate cut will be passed through to consumer prices, but that prices will be reduced progressively rather than immediately. This is in line with international evidence. As a result, these factors mean that CPI inflation is forecast to fall below 1 per cent in the second half of 2009.

A.72 Unlike the initial cut in the VAT rate, the subsequent pre-announced increase back to 17½ per cent will be anticipated by businesses and consumers, so the forecast assumes that businesses will smooth the pass-through of this change during the normal process of reviewing prices as other costs and demand factors evolve. Inflation is forecast to move a little above the 2 per cent inflation target following the reversal of the VAT rate cut and as the lagged effects of sterling depreciation on import prices continue to feed through, before returning to target in 2011 as the still negative output gap exerts downward pressure.

¹² The negative contribution from flat energy prices through to September 2009 would be less than the positive contribution in September 2008 partly because some of that contribution reflects a base effect from falling energy prices in September 2007.



RPI inflation A.73 RPI inflation is forecast to fall below zero in 2009. In addition to the factors pushing CPI inflation lower, further declines in house prices and interest rates, in line with market expectations, put downward pressure on the measures of housing depreciation and mortgage interest payments included in the RPI. As a result, RPI inflation is forecast to fall below -2 per cent in the third quarter of 2009. This period of negative RPI inflation is expected to be relatively brief, with RPI inflation moving above zero again in 2010 as these additional downward pressures recede.

UK DEMAND AND OUTPUT IN DETAIL

Rebalancing of demand A.74 Private consumption accounts for around two-thirds of UK demand. Since 2000, it has contributed around 2 percentage points to the annual average GDP growth rate of 2¾ per cent. The contribution of business investment to growth in the early part of the decade was low, but between 2005 and 2007 it increased substantially, reaching 1 percentage point in 2007. Housing investment contributed on average a ¼ percentage point to GDP growth, a somewhat smaller contribution than business investment. With government spending also contributing positively on average, the contribution of domestic demand growth averaged 3 percentage points a year with net exports subtracting a ¼ percentage point on average.

A.75 In 2007 and the first half of 2008, private consumption remained the key driver of growth. With private domestic demand expected to contract in the near term as tight credit conditions, demand uncertainty and other factors impinge, and with sterling having depreciated significantly since mid-2007, the conditions are in place for net exports to contribute positively to growth over the forecast period even as private domestic demand growth recovers.

Table A4: Contributions¹ to GDP growth²

	Percentage points, unless otherwise stated					
	Average 2000 to 2006	2007	Forecast			
			2008	2009	2010	2011
GDP growth, per cent	2¾	3	¾	-1¼ to -¾	1½ to 2	2¾ to 3¼
Main contributions						
Private consumption	2	2	1	-¾	1	1¾
Business investment	¼	1	0	-1	¼	¾
Dwellings investment ³	¼	¼	-¼	-½	0	¼
Government ⁴	¾	½	¾	¾	¼	0
Change in inventories	0	¼	0	-¼	0	0
Net trade	-¼	-¾	0	¾	¼	¼

¹ Based on central case. For the purpose of projecting public finances, forecasts are based on the bottom of the GDP forecast range.

² Components may not sum to total due to rounding and omission of transfer costs of land and existing buildings and the statistical discrepancy.

³ The sum of public corporations and private sector investment in new dwellings and improvements to dwellings.

⁴ The sum of government consumption and general government investment.

Households, consumption and housing

A.76 Household consumption is the largest expenditure component of demand in the UK, accounting for just under 64 per cent of nominal GDP in 2007. Having trended lower over the past five years, the share of nominal consumer spending in total demand increased slightly over the year to mid-2008 as energy and food prices rose sharply.

Table A5: Household sector¹ expenditure and income

	Percentage change on a year earlier, unless otherwise stated					
	Average 2000 to 2006	2007	Forecast			
			2008	2009	2010	2011
Household consumption ²	3	3	1½	-1½ to -1	1¼ to 1¾	2¼ to 2¾
Real household disposable income	2¾	0	-¼	½ to 1	1 to 1½	2¾ to 3¼
Saving ratio ³ (level, per cent)	4¾	2½	¾	2¾	3	3½

¹ Including non-profit institutions serving households.

² Chained volume measures.

³ Total household resources less consumption expenditure as a percent of total resources, where total resources comprise households' disposable income plus the increase in their net equity in pension funds.

Disposable income **A.77** Real household disposable income is estimated to have been flat in 2007, as negative growth in non-wage income, particularly net interest and dividend payments, offset the impact of strong employment growth on total wages and salaries. Sluggish real disposable income growth continued in the first half of 2008, as the commodity-price related pick-up in inflation squeezed real incomes further. With the global price level having increased as a result of commodity price developments, there are likely to be lasting effects on real incomes in the UK and many advanced economies. Adjusting to this changed global environment will require a period of slower growth in the real standard of living and a rebalancing of demand away from real consumption and towards net trade in order to maintain GDP growth rates. As set out in Box A6, the depreciation of sterling provides incentives for that rebalancing to take place over time.

A.78 The effects of lower commodity prices and the temporary cut in the rate of VAT should support real income growth in 2009, which is forecast to pick up to ½ to 1 per cent. As the recovery takes hold from 2010, a strengthening labour market is expected to take over as the main driver of real income growth as inflation returns to close to target and the effects of fiscal stimulus recede.

Consumer spending **A.79** Private consumption grew by 3 per cent in 2007, in line with GDP growth as a whole. Consumer spending continued to grow strongly in the first quarter of 2008 before contracting slightly in the second quarter. The breakdown of consumer spending in the second quarter shows clearly how the global economic shocks impacted UK consumers, with spending on housing and transport-related durable goods falling by around 5 per cent on the previous quarter, while spending on discretionary services like recreation and restaurants was down by around 3 per cent.

A.80 Retail sales growth remained firm in the first half of 2008, but has recently eased. Survey evidence from the Confederation of British Industry, British Retail Consortium and Bank of England's Regional Agents points to further easing during the remainder of the year, a signal that is consistent with real incomes remaining under pressure, credit conditions remaining tight and consumers downbeat about near-term economic prospects.

Saving ratio **A.81** With consumer spending growth having remained strong over the past year and a half despite flat real incomes, the saving ratio has declined from 3½ per cent at the end of 2006 to ½ a per cent in the second quarter of 2008, with the latest estimates currently showing the ratio falling below zero in the first quarter. The saving ratio can be revised quite heavily as new data on income and spending become available, as was evidenced by the significant revisions in the 2008 Blue Book. While clearly subject to further revision, the broad pattern of households' finances having come under greater pressure is unlikely to change markedly.

Household balance sheets **A.82** Over the past decade, households have accumulated assets and liabilities at a faster rate than their disposable income has grown. Households' total assets, including housing, increased from around 7 times income at the end of 1997 to more than 9½ times income by the end of 2007. Over the same period, rising house prices have meant households' outstanding loans, mostly mortgages, have increased from 91 to 157 per cent of disposable income. With house prices and equity prices having fallen, reducing the value of households' assets, the precautionary desire to increase saving in order to adjust their finances is likely to increase.

Prospects for consumer spending and the saving ratio **A.83** Consumer spending is forecast to decline in 2009, reflecting various factors. Apprehension over labour market prospects and increased saving from the very low level of 2008 are likely to put downward pressure on consumer spending. The temporary cut in the rate of VAT, by boosting real purchasing power as it is passed through to lower prices and by incentivising purchases before the lower rate reverses, is expected to increase the volume of spending relative to the level that would have prevailed in the absence of such a cut. The forecast assumes that around half of the increase in real purchasing power will feed through to an increased volume of spending and half to the adjustment of household finances.

A.84 As real incomes recover further and credit conditions normalise, consumer spending is forecast to grow by 1¼ to 1¾ per cent in 2010, and then to continue to grow at rates slightly below that of the whole economy as households continue to adjust their finances. This pattern of growth, with a gradual rise in the household saving ratio, will support the rebalancing of demand in the UK from domestic to external sources.

House prices **A.85** House price inflation began to slow from early 2007, as higher interest rates acted to ease demand pressures. The disruption in global financial markets turned that gradual easing into a more abrupt adjustment in UK house prices. As mortgage securitisation markets closed and interbank lending costs increased, the availability of mortgages contracted sharply. With prices continuing to fall, lenders increased required deposits leading to the removal of virtually all 95 per cent loan-to-value mortgages from the market, and demand for new mortgages declined as buyers anticipated lower prices in the future. According to indices compiled by the Nationwide and Halifax, house prices in the UK have fallen by around 15 per cent since their peak in late 2007.

A.86 Prospects for the depth and duration of the adjustment in UK house prices are highly uncertain, with developments in global financial markets and the real economy key. External forecasts compiled by the Treasury in the November *Comparison of independent forecasts* indicate further declines in prices are expected through 2009, although the range of forecasts is relatively wide. The average of new independent forecasts is for a fall of just over 20 per cent in the two years to the end of 2009. Beyond 2009, as credit conditions normalise, house prices are expected to recover and are assumed to grow at rates slightly above average earnings growth, supported by buyers who have delayed purchases returning to a housing market still characterised by restricted supply.

Investment in dwellings **A.87** Between 2000 and 2007, investment in dwellings increased from around 2¾ per cent to 4 per cent of GDP in nominal terms, with around half of the rise accounted for by strong growth in house prices. As such, while real activity has been relatively strong, growing by 8½ per cent in 2006 and 5 per cent in 2007, the UK has not witnessed the kind of housing construction boom that took place in some countries, notably the US, Ireland and Spain.

A.88 Prospects for housing investment have been adversely affected by the impact of the global credit shock on the UK housing market. After contracting 7¾ per cent on a year earlier in the first half of 2008, investment is forecast to fall 9½ per cent in 2008 as a whole and by a further 11 to 11½ per cent in 2009. However, with the fundamental drivers of demand for housing – principally the rate of household formation – still in place, and credit conditions assumed to settle at a new norm, housing investment is expected to recover from later in 2010.

Risks **A.89** The forecast for consumer spending is subject to a range of uncertainties representing both upside and downside risks. While it is considered very likely that most of the cut in the VAT rate will over time be passed through to prices, it is less clear to what extent consumers will choose to increase their volume of spending in light of increased purchasing power, or prefer to maintain their volume of spending such that lower prices allow them to adjust their finances more quickly. Restricted access to credit could limit some consumers' ability to bring forward spending to take advantage of the temporarily lower rate of VAT. Conversely, in anticipation of higher prices in 2010, a greater proportion of consumers could choose to bring forward spending to 2009.

A.90 Other uncertainties include the degree to which lower interest rates will support spending, the speed at which credit conditions normalise, and the degree to which households choose to adjust their finances more abruptly than assumed in the face of labour market and asset price uncertainties. Risks around the depth and duration of the adjustment in the UK housing market are linked to the ability of banks to resume profitable lending, further rebuilding their capital positions and increasing the availability of mortgage finance.

Companies and investment

A.91 On conventional measures, business investment accounts for around 10 per cent of nominal GDP, but its role in the economy extends beyond that, affecting future growth by raising the amount of physical capital available to each worker with which to produce goods and services. It is a feature of firms' investment spending that it typically exhibits much larger cyclical fluctuations than other components of demand.

Company finances A.92 Companies can finance investment internally, using the cashflow generated by their operations, or externally, either through bank lending or by issuing equity or debt to investors. In aggregate, the private non-financial corporate sector's gross operating surplus increased by 8¼ per cent on a year earlier in the first half of 2008, enabling the sector to run a net lending position of 3 per cent of GDP. This suggests the availability of internal sources of finance at the aggregate level remained above normal. However, recent data on the flow of company financing and bank deposits suggest that the combination of rising cost inflation and slowing consumer spending have put company finances under increasing pressure. Companies' deposit balances have fallen by 5 per cent since peaking in February, while lending to companies, which averaged around £15 billion a quarter in 2007 and the first half of 2008, was flat in the third quarter.

A.93 Credit conditions faced by companies have continued to tighten since Budget 2008, both for bank lending and for equity and debt finance. Equity prices are more than 30 per cent lower than at the time of Budget 2008. While the cost of debt finance has risen, with borrowing costs high relative to government bond yields, a recent positive development has been lower interest rates on commercial paper, a source of short-term financing used mainly by larger companies, which have fallen sharply following the November cut in Bank Rate. However, recent surveys carried out by the CBI suggest that, after a year when companies had appeared to have been less affected by the global credit shock than households, the cost and availability of finance has begun to affect firms' operating and investment plans.

Table A6: Gross fixed capital formation

	Percentage change on a year earlier					
	Average 2000 to 2006	2007	Forecast			
			2008	2009	2010	2011
Whole economy ¹	3¼	7	-4½	-8¼ to -7¾	2¼ to 2¾	6½ to 7
of which:						
Business ^{2,3}	2¼	9¾	-1	-8¼ to -7¾	1 to 1½	6¾ to 7¼
Private dwellings ³	4½	5	-9½	-11½ to -11	-1½ to -1	4¾ to 5¼
General government ³	5	-½	9¾	10	-4¼	-2½

¹ Includes costs associated with the transfer of ownership of land and existing buildings.

² Private sector and public corporations' non-residential investment. Includes investment under the Private Finance Initiative.

³ Excludes purchases less sales of land and existing buildings.

Business investment A.94 Business investment grew strongly between 2005 and 2007, by more than 4 per cent a year in 2005 and 2006 and almost 10 per cent in 2007, a pattern consistent with the economy having passed up through trend in the second half of 2006. In the first half of 2008, business investment contracted by 1 per cent on a year earlier as uncertainty over demand prospects increased. The contraction was broadly based across sectors.

A.95 With company finances under pressure, near-term demand prospects weakening and credit conditions remaining tight, business investment is set to contract relatively sharply in 2008 and 2009. In keeping with the strongly cyclical nature of investment, after falling 1 per cent in 2008 and 7¾ to 8¼ per cent in 2009, business investment is forecast to begin recovering in 2010 as credit conditions normalise and demand uncertainties recede, and to grow strongly in 2011.

Public investment A.96 General government investment is forecast to grow by 9¾ per cent in 2008 and 10 per cent in 2009, in part reflecting the Government's action to bring forward £3 billion of capital spending from 2010-11 to 2008-09 and 2009-10, supporting employment and activity during the downturn.

Risks A.97 There are risks to the business investment forecast from developments in credit availability and company finances more generally, which will in turn be affected by the degree to which fiscal stimulus supports consumer spending and the depreciation in sterling supports net exports. The substantial decline in commercial property prices could exacerbate the tightening of credit conditions that has taken place over recent months by reducing the value of collateral against which companies can borrow. As noted in Box A4, there are longer-term risks to productivity depending on how long the efficient allocation of credit by the financial system remains impaired. On the upside, with Bank Rate and government bond yields low, if sentiment turns and spreads on corporate borrowing narrow, borrowing costs for companies could fall to more supportive levels, stimulating activity sooner than expected.

Trade and the balance of payments

A.98 As noted in previous Budget and Pre-Budget Reports, annual growth in recorded exports and imports of goods and services has been distorted by activity related to missing-trader intra-community fraud (MTIC), which significantly inflated the value of measured goods trade in the first half of 2006. Since the second half of 2006, Government measures to tackle MTIC fraud have led to a sharp fall in estimated MTIC-related activity, to a low level.¹³ The economic forecast abstracts from MTIC effects by making a neutral assumption that the adjustment for MTIC-related activity remains constant throughout the forecast at the latest quarterly estimate, and that trade grows in line with underlying determinants. Table A7 presents export and import growth forecasts excluding the MTIC adjustment.

Exports of goods and services A.99 Growth in the measured volume of goods and services exports, excluding the MTIC adjustment, is estimated to have eased from 8 per cent in 2006 to 1¼ per cent in 2007. It seems possible that this exaggerates the extent of the genuine slowdown between those years, reflecting difficulties in applying the MTIC adjustment. With MTIC-related activity estimated to have been stable for more than a year, growth rates in the first half of 2008 should be subject to somewhat reduced uncertainty. On current estimates, the volume of exports of goods and services grew 2½ per cent on a year earlier in the first half of the year. On a quarterly basis, the volume of goods exports dipped in the third quarter while the volume of services exports declined in the second quarter, and current estimates of the value of services exports in the third quarter suggest volumes fell sharply.

A.100 In the near term, prospects for UK export growth are likely to be dictated by the downturn in key export markets, notably the euro area, so that export growth is likely to be weak in 2008 and 2009 despite the support from sterling's depreciation. The forecast for UK export market growth in 2009 has been revised down by almost 6 percentage points since Budget 2008 to ½ a per cent. Export volumes growth in 2009 is forecast to be 0 to ½ per cent, but as growth in the UK's export markets recovers and the effects from sterling gradually encourage more companies to pursue export opportunities, growth is forecast to pick up in 2010 and further in 2011.

¹³ In view of the inevitable measurement difficulties involved in adjusting for MTIC-related activity, the ONS continues to advise in its monthly trade releases that comparisons of trade volumes and prices "should be treated with a great deal of caution". Consistent with the view set out in paragraph B.77 of Budget 2008, it remains hard to reconcile the trade data for 2006 and 2007 with evidence from private business surveys and domestic demand growth in the UK's main trading partners.

Imports of goods and services **A.101** Growth in the measured volume of goods and services imports, excluding the MTIC adjustment, shows a similar pattern to exports, with strong growth in 2006, of 6¾ per cent, followed by slower growth of 3½ per cent in 2007. In the first half of 2008, the volume of goods imports grew by 2¼ per cent on a year earlier, having fallen on a quarterly basis since the final quarter of 2007. By contrast, the volume of services imports grew by 6 per cent on a year earlier following strong quarterly growth in the first quarter of 2008. The volume of goods imports was flat in the third quarter, while current estimates of the value of services imports suggest the volume fell sharply.

A.102 With consumer spending and business investment forecast to contract in 2009, the volume of imports is also expected to fall. In line with the recovery in domestic demand from 2010, but tempered by the effect of sterling's depreciation on consumers' incentives to substitute domestically produced goods for imports, as set out in Box A6, import volumes growth is forecast to pick up from 2010.

Net exports **A.103** Despite sluggish export growth in 2008 and 2009, the slowdown in import growth in 2008 and decline in import volumes in 2009 mean that net exports are forecast to contribute positively to overall GDP growth. At around ¾ of a percentage point in 2009, the contribution of net exports to growth would be of a similar order of magnitude to that seen in the past three UK recessions.

Table A7: Trade in goods and services

	Percentage change on a year earlier, unless otherwise stated					
	Average 2000 to 2006	2007	2008	Forecast		
				2009	2010	2011
Volumes (excluding MTIC)¹						
Exports	4¾	1¼	¾	0 to ½	3¼ to 3¾	5¼ to 5¾
Imports	5½	3½	½	-2¾ to -2¼	2½ to 3	4 to 4½
Prices²						
Exports	1	2½	10¼	2¼	2¾	1¼
Imports	1	1	9½	4¼	3¾	2¼
Terms of trade ³	0	1½	¾	-1¾	-¾	-¾
Goods and service balance (£ billion)	-30¾	-47½	-48½	-45¾	-48½	-49

¹ Table A9 contains figures including the effects of MTIC-related activity. The forecast is therefore based on the neutral assumption that the level of MTIC-related activity stays flat at the latest quarterly estimate throughout the forecast.

² Average value indices.

³ Ratio of export to import prices.

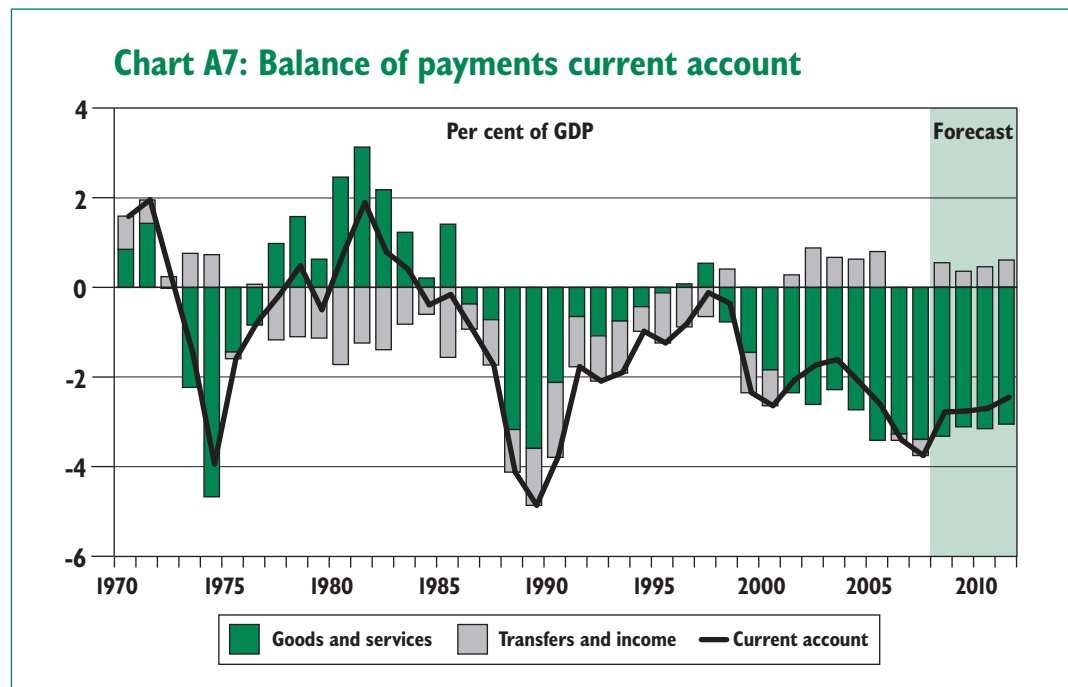
Risks **A.104** There are clear risks to export growth from developments in UK export markets. If recessions in the euro area and US prove more severe than expected, export growth could turn negative in 2009. However, if policy stimulus and lower commodity prices deliver earlier recovery, export growth could pick up sooner than forecast. Risks to consumer spending and investment growth in the UK set out above would feed through to similar risks to import growth. Finally, the extent to which sterling's depreciation will attract companies into exporting or to produce goods and services competing with more expensive imports is uncertain, although a rapid effect should not be expected.

Current account balance **A.105** The UK's deficit on trade in goods was 6¼ per cent of GDP in 2007. In the first half of 2008, the goods trade deficit was little changed as a slight decline in the deficit on manufactured goods was offset by a slight increase in the deficit on oil and other fuels. Partly offsetting the UK's goods trade deficit, trade in services generated a surplus of 3 per cent of GDP in 2007, up from 2½ per cent of GDP in 2006 due to a ½ per cent of GDP increase in the surplus on trade in financial services to 2¼ per cent. During the first half of 2008, perhaps reflecting the

volatility in global financial markets, the value of exports and imports of financial services respectively grew by 29 per cent and 26 per cent on a year earlier, leading to a further increase in the surplus on financial services trade to 2½ per cent of GDP.

A.106 The recent large losses incurred by the world’s financial institutions provided a temporary boost to the UK’s investment income balance, due to the reduction in the flow of profits that would normally be repatriated from UK-based foreign financial institutions. Overall, the surplus on income increased from ½ a per cent of GDP in 2007 to 3 per cent in the first quarter of 2008 as FDI-related debits fell from 3¾ per cent of GDP to 1¾ per cent. This temporary effect began to unwind in the second quarter as FDI-related debits increased to 3 per cent of GDP, and the income surplus declined to 1¼ per cent.

A.107 Overall, the UK’s current account deficit was 3¾ per cent of GDP in 2007. After temporarily narrowing to 1½ per cent in the first quarter of 2008, it returned to 3 per cent of GDP in the second quarter. The balance of domestic demand growth in the UK and overseas, supported by the various effects of sterling’s depreciation explained in Box A6, should lead to the current account deficit narrowing in the second half of 2008 and 2009. The balance is forecast to remain broadly stable thereafter, with 2007 expected to have marked the peak for the current account deficit.



Box A6: Sterling, net trade and the balance of payments

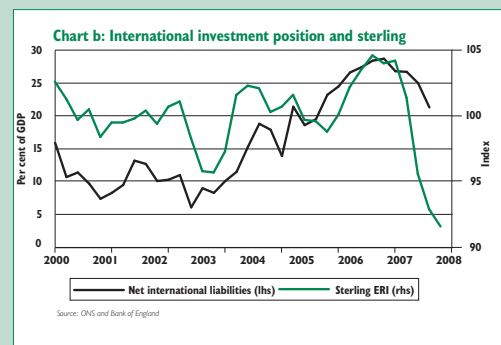
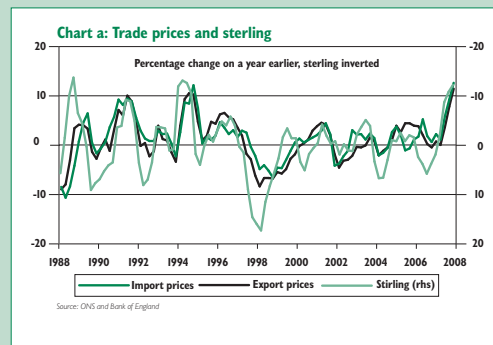
Sterling has depreciated by over 20 per cent since mid-2007. Theory suggests that currency depreciation should have a positive impact on the net trade contribution to GDP over the medium term via the positive effect on export volumes and negative effect on import volumes.

As sterling has depreciated, exporters should have become more competitive in overseas markets, which in turn should encourage domestic producers to switch production to profitable export opportunities. However, previous episodes of significant depreciation, such as that following the UK's exit from the European Exchange Rate Mechanism in 1992, have shown that UK exporters tend to raise sterling prices in order to boost profits in the short term, with effects on the volume of exports more lagged and muted. A similar pattern of sterling export prices rising in line with sterling's depreciation has been seen over the past year (chart a), suggesting the short-term boost to export volumes may be limited. Empirically, overseas demand for UK exports has proved the primary driver of UK export volume growth.

For UK consumers and producers, as sterling depreciates the sterling cost of imports rises. If prices of imported goods and services rise faster than prices of domestically produced goods and services, consumers and producers have an incentive to substitute away from imports into similar UK-produced goods and services. In the short term, the ability to substitute is limited by the availability of similar goods and services, although over time domestic producers could move into these activities. Overall, the impact of higher relative import prices would be to reduce the volume of imports consumed.

Given the outlook for global economic growth, sterling depreciation is more likely to support a positive contribution from net trade to UK GDP growth via the negative impact on import growth. In terms of sterling's impact on the overall balance of payments, as well as the trade balance, the impact on the net asset position and net investment income must also be considered.

Sterling depreciation increases the sterling value of UK assets abroad because a significant proportion of those assets are denominated in foreign currencies, and similarly increases the sterling value of income received from abroad. Sterling's impact on the UK's international investment position can already be seen, with the UK's net liabilities falling from 29 per cent of GDP to 21 per cent over the past year (chart b). A smaller net international liability position, and the resulting increase in the net investment income surplus, would, all else equal, reduce the UK's current account deficit.



Foreign direct investment

A.108 The UK continued to attract large flows of inward foreign direct investment (FDI) in 2007 and the first half of 2008. At £111 billion in 2007, the UK was once again the top European recipient of inward FDI and second in the world after the US. FDI inflows to the UK continued at a similar pace in the first half of 2008, reaching almost £52 billion. As a ratio to GDP, the UK has the largest stock of inward FDI among the G7 economies, while in absolute terms the UK is host to the second largest stock of FDI in the world after the US.

Output sectors

Services A.I09 Around three quarters of UK gross value added (GVA) is accounted for by service sector activity. This share has risen steadily in recent years, as has the service sector's share of UK exports. Service sector output grew by 3¾ per cent in 2007, supported by strong growth in the finance and business services sector. In the first three quarters of 2008, service sector growth has slowed more sharply than expected, with output in the third quarter up ½ a per cent on a year earlier, having fallen 0.4 per cent in quarterly terms. Demand uncertainty and the squeeze on real incomes and profit margins have impacted on growth within the wider private service sector, as consumers and businesses have restricted discretionary spending.

A.I10 The financial sector has experienced very strong growth over the past 11 years, with real growth rates ranging between 4 and 8 per cent a year since 1996. However, the financial sector's share of nominal GVA has not risen as quickly as might have been expected, with the 2008 Blue Book estimates showing the share to have increased from a low of 5¼ per cent in 2000 to 7½ per cent in 2007. As a result of the global financial crisis, financial sector employment, earnings and profits are likely to fall, perhaps sharply, in the near term and, while the sector is expected to resume strong growth, it is likely to make up a smaller share of activity for some time.

Construction A.I11 Construction accounted for around 6½ per cent of nominal GVA in 2007. The sector grew by 3 per cent in 2007, in line with the economy as a whole, following slower growth of 1 per cent in 2005 and 2006. Following relatively strong growth in the first quarter of 2008, construction sector output contracted in the second and third quarters. In addition, new construction orders fell by 19 per cent on a year earlier in the third quarter, suggesting the contraction in output is likely to continue over coming quarters. Private housing construction orders fell 53 per cent on a year earlier, having been particularly hit by the effects of reduced supply of mortgage finance and falling house prices on activity. The bringing forward of public investment spending into 2008-09 and 2009-10 should provide some offsetting demand for the construction sector in the near term, while medium-term prospects should benefit from the expected recovery in business and housing investment described above.

Manufacturing A.I12 The manufacturing sector accounted for around 12½ per cent of nominal GVA in 2007. The sector grew by ½ a per cent in 2007, which was somewhat below the rate consistent with evidence from a range of private sector business surveys. In more recent quarters, manufacturing output has contracted, particularly production of consumer durables. Production is forecast to fall by 2¾ to 3¼ per cent in 2009, as demand in the UK and globally remains subdued, but to recover in 2010. Sterling's depreciation should provide some support for manufacturing growth, although in the near term this support is likely to be more than outweighed by the weaker growth prospects of the UK's main trading partners. As set out in Box A6, over time sterling's depreciation should support domestic manufacturing as consumers partly substitute away from imported goods to domestically produced alternatives.

North Sea output A.I13 Output from the North Sea oil and gas sector fell by around 25 per cent over the three years to 2006, as temporary disruptions exacerbated an underlying decline. The pace of this decline was arrested somewhat in 2007, as oil started flowing from the new Buzzard field, but overall production fell by 2½ per cent in the year. Output in 2008 has also been constrained by temporary factors, including the brief closure of the Forties pipeline. Output is expected to continue to fall over the forecast horizon.

Independent forecasts

A.II4 Since Budget 2008, the average of independent forecasts for GDP growth in 2008 has been revised down from 1.7 per cent to 0.9 per cent, close to the 2008 Pre-Budget Report forecast. With independent forecasters expecting contractions in private consumption and investment in 2009, forecasts for GDP growth next year have been revised down progressively and significantly, from 1.9 per cent at the time of Budget 2008 to -0.9 per cent. Since August 2008, this downward trend has quickened as the independent average has fallen from 0.9 per cent to -0.9 per cent. Following the pick-up in inflation this year, forecasts for CPI inflation in the final quarter of 2008 have risen to 4.5 per cent. However, inflation is expected to fall back over the coming year, moving below target by the end of 2009. The average of independent forecasts for 2010 and 2011 show inflation at or close to target.

A.II5 Among external forecasters that produce medium-term growth forecasts, expectations are for a relatively sluggish recovery in 2010 and 2011, with the independent average somewhat below the Pre-Budget Report forecast ranges for those years at 1.2 and 2.4 per cent respectively. Illustrating the uncertainty surrounding the timing and strength of the recovery, the range of independent growth forecasts for 2010 is over 1 percentage point wider than that for 2009 despite there being a smaller number of forecasters in the sample.

A.II6 Table A8 also presents forecasts from a selection of international institutions, research institutes and private sector forecasters that illustrate the range of views held. Compared with the Pre-Budget Report forecast, Goldman Sachs and Morgan Stanley forecast a milder recession in 2009 and a similarly swift rebound in 2010. By contrast, Citigroup and HSBC forecast a more severe downturn in 2009 and a slower medium-term recovery. The international institutions and the National Institute forecast a similar recession in 2009, although most point to a slower recovery in 2010. As with all forecasters, these institutions will be constantly reviewing economic developments, such that Table A8 can only represent a snapshot of external views. For example, it is very unlikely that any will have correctly anticipated all of the actions announced in this Pre-Budget Report and some may be revised as a result.

Table A8: Pre-Budget Report and independent forecasts¹

		Percentage change on a year earlier, unless otherwise stated				
		2008	2009	2010	2011	
GDP	2008 Pre-Budget Report	$\frac{3}{4}$	$-1\frac{1}{4}$ to $-3\frac{3}{4}$	$1\frac{1}{2}$ to 2	$2\frac{3}{4}$ to $3\frac{1}{4}$	
	Independent: average²	0.9	-0.9	1.2	2.4	
	range	0.7 to 1.1	-2.1 to 0.4	-1.0 to 2.6	1.0 to 3.5	
	Selected external forecasters ³	Citigroup	0.8	-1.6	0.3	2.0
		Goldman Sachs	0.8	-0.4	1.8	2.8
		HSBC	0.8	-1.7	0.5	1.0
		Morgan Stanley ⁴	0.8	-0.3	1.9	-
		IMF ⁵	0.8	-1.3	1.1	-
		OECD ⁶	0.8	-1.1	0.9	-
		EC ⁷	0.9	-1.0	0.4	-
	NIESR ⁸	0.8	-1.5	0.8	2.6	
CPI (Q4)	2008 Pre-Budget Report	$3\frac{3}{4}$	$\frac{1}{2}$	$2\frac{1}{4}$	2	
	Independent: average²	4.5	1.7	1.8⁹	2.0⁹	
	range	3.7 to 5.0	0.7 to 2.6	1.2 to 2.6	1.5 to 2.4	

¹ Published in 'Forecasts for the UK economy: A comparison of independent forecasts', November 2008 unless otherwise stated.

² Independent forecasts for 2010 and 2011 are based on the medium-term projections containing a smaller pool of contributors.

³ No significance should be attached to the inclusion or exclusion of any particular forecasting organisation.

⁴ Morgan Stanley forecasts published 10 November 2008 in 'UK Economics – Forecast Update'.

⁵ IMF (International Monetary Fund) forecasts from 6 November 2008 'World Economic Outlook Update'.

⁶ OECD (Organisation for Economic Co-operation and Development) forecast published 6 November 2008 in 'Economic Outlook 84'.

⁷ EC (European Commission) forecast published 3 November 2008 in 'Economic Forecast – Autumn 2008'.

⁸ NIESR (National Institute of Economic and Social Research) forecast published 24 November 2008 in 'Prospects for the UK economy'.

⁹ Independent CPI forecasts for 2010 and 2011 refer to annual average rather than Q4.

SUMMARY OF FORECAST ISSUES AND RISKS

A.II7 The events of September and early October 2008, when the global financial system came close to collapse prompting an unprecedented global policy response, illustrate vividly the exceptional uncertainties now surrounding any economic forecast, even for near-term prospects. This section summarises the many risks and uncertainties that have been discussed throughout this annex.

A.II8 Many of the larger downside risks to activity, for example the economic consequences of systemic banking collapse or from sharply weaker income and spending growth, which would have been associated with disproportionately large welfare costs, have been significantly reduced by recent and prospective policy action in the UK and globally.

Global economy

Global financial markets and credit conditions

A.II9 As was the case at the last Budget and Pre-Budget Report, the key forecast judgement relates to the intensity and duration of the global tightening in credit conditions faced by households and companies. The forecast assumes that, with financial institutions having received significant support from governments around the world, credit conditions should ease over the coming year and return to a new norm from early 2010. The extent of government support and very low level of policy interest rates suggest there is an upside risk to this assumed path of credit conditions, with the possibility that the banking system is able to restore the efficiency of its financial intermediation operation more quickly. Against that, the experience of the past six months, when conditions appeared to be stabilising before

deteriorating dramatically in September and October, underlines the significant downside risks that remain. There is also a growing risk of more widespread financial contagion across emerging markets.

Commodity prices **A.120** Since mid-July, the price of a barrel of oil has fallen from \$146 to around \$50, a drop of over 65 per cent. According to futures contracts and independent forecasters, this drop is not expected to reverse significantly. While another surge in oil and other commodity prices seems very unlikely given slowing world output growth, the experience of the first half of 2008 suggests that rising commodity prices could again pose a risk to activity at some point over the forecast horizon.

Global monetary and fiscal stimulus **A.121** Since the beginning of October, a large number of central banks around the world have cut interest rates sharply as inflationary pressures have receded and risks to growth have crystallised. Markets are expecting further easing across many countries, although interest rates in some have already reached very low levels. There are uncertainties over the extent and speed with which monetary policy easing can support activity, especially given dislocations in the global financial system and the decline in business and consumer confidence globally. If significant easing boosts confidence in the non-financial sector, and profitability in the financial sector, it could feed through to consumer spending and business investment more quickly or more forcefully than assumed.

A.122 Recent weeks have also seen a pick-up in the number of countries announcing fiscal stimulus measures, and, in line with agreement at the G20 summit on 15 November, there are expectations that more will be forthcoming. Again, there are uncertainties over the extent to which fiscal policy will support near-term private sector activity in an environment of unusually tight credit conditions.

Protectionism **A.123** Protectionism is a major risk to global economic prospects and to lifting developing countries out of poverty. As global growth slows while global imbalances remain significant, there is a risk that countries retreat to protectionism or trade-distorting subsidies in a futile attempt to support their domestic economies. Further economic cooperation will help to boost trade and investment flows to the benefit of global growth. A successful conclusion of the Doha Round of world trade talks is a matter of urgency in terms of boosting global trade, and reassuring markets that policymakers will not repeat the mistakes of past global downturns.

UK economy

UK monetary and fiscal stimulus **A.124** In the UK, Bank Rate has been cut by 2 percentage points over the past two months to a 53-year low of 3 per cent, while the Pre-Budget Report announces discretionary action that will deliver a fiscal stimulus package of around 1 per cent of GDP in 2009-10, in addition to the support provided by measures in 2008-09. As with stimulus packages around the world, there are uncertainties over the degree to which easing will support activity. In terms of monetary easing, there have been some encouraging signs that it will filter through to households and companies, though there remain clear risks over how long the availability of credit will remain restricted and the extent to which households and companies will want to increase borrowing in an uncertain economic environment, and when outstanding household borrowing is historically high.

A.125 In terms of the fiscal stimulus, the key economic risks stem from the degree to which the lower VAT rate is passed through to consumer prices and the extent to which temporarily lower prices stimulate a greater volume of spending. It has been assumed that the majority of the VAT rate cut will be passed through to consumer prices progressively. While this suggests a risk to consumer spending from lower pass-through, that risk would be tempered by the

upside risk to corporate profits and perhaps therefore employment if companies were to retain more of the temporary VAT rate cut. With respect to stimulating spending, the forecast assumes that approximately half of the increase in real purchasing power translates into an increased volume of spending with the remainder used by households to bolster their finances. There are clearly upside and downside risks to this assumption, particularly those related to developments in credit conditions. If credit conditions ease more rapidly than assumed, households will have greater scope to bring forward spending to capitalise on the temporarily lower rate of VAT.

Inflation A.126 From spring 2008 until recently, the risk to inflation was tilted to the upside, with commodity prices reaching record highs in the summer. As commodity prices have fallen sharply and growth has slowed, pressures on inflation have eased. While the depreciation of sterling means there are residual upside risks to inflation from import prices, it seems clear that inflation is set to fall sharply over the coming year. Further downward pressure on inflation will come as the cut in the VAT rate is progressively passed through to prices. For CPI inflation, this suggests that over the coming year the greater risk is that inflation will fall well below 1 per cent, a level that would trigger an open letter from the Governor of the Bank of England to the Chancellor of the Exchequer.

A.127 RPI inflation is likely to turn negative for a period, reflecting the inclusion of measures of housing costs and mortgage interest payments, both of which are expected to continue falling over the coming year. While this period of falling prices is expected to be both short and confined to the RPI measure of headline inflation, it should be recognised there would be risks to activity should inflation expectations be affected.

Trend output and the cyclical position A.128 The Treasury's forecasting judgements on the impact of the credit shock on trend output are subject to significant uncertainty. This uncertainty has implications for assessing the balance between cyclical demand and potential supply, and hence prospective inflationary pressures and the labour market implications of the economic downturn. If the shock has a greater impact on trend output than assumed, demand pressures are likely to bite sooner than expected, putting upward pressure on inflation earlier and reducing the extent of labour market adjustments. Conversely, if the shock has had a smaller impact on trend output, then a larger degree of spare capacity will open up as output contracts, placing additional downward pressure on inflation.

Consumer spending and housing A.129 As well as VAT-related risks to the consumer spending forecast, other uncertainties include the degree to which lower interest rates will support spending, the speed at which credit conditions normalise, and the degree to which households choose to adjust their finances more abruptly than assumed in the face of labour market and asset price uncertainties. Risks around the depth and duration of the adjustment in the UK housing market are linked to the ability of banks to resume profitable lending, further rebuilding their capital positions and increasing the availability of mortgage finance.

Business investment A.130 There are risks to the business investment forecast from developments in credit availability and company finances more generally, which will in turn be affected by the degree to which fiscal stimulus supports consumer spending and the depreciation in sterling supports net exports. The substantial decline in commercial property prices could exacerbate the tightening of credit conditions that has taken place over recent months by reducing the value of collateral against which companies can borrow. On the upside, with Bank Rate and government bond yields low, if sentiment turns and spreads on corporate borrowing narrow, borrowing costs for companies could fall to more supportive levels, stimulating activity sooner than expected.

Trade A.131 There are clear risks to export growth from developments in UK export markets. If recessions in the euro area and US prove more severe than expected, export growth could turn negative in 2009. However, if policy stimulus and lower commodity prices deliver earlier recovery, export growth could pick up sooner than forecast. Risks to consumer spending and investment growth in the UK would feed through to similar risks to import growth. Finally, the extent to which sterling's depreciation will attract companies into exporting or to produce goods and services competing with more expensive imports is uncertain.

Table A9: Summary of economic prospects¹

	Percentage change on a year earlier, unless otherwise stated					Average errors from past forecasts ⁵
	2007	Forecast ^{2,3,4}				
		2008	2009	2010	2011	
Output at constant market prices						
Gross domestic product (GDP)	3	¾	-¼ to -¾	1½ to 2	2¾ to 3¼	¾
Manufacturing output	¾	-1¼	-3¼ to -2¾	1 to 1½	1¾ to 2¼	1¼
Expenditure components of GDP at constant market prices⁶						
Domestic demand	3¾	¾	-2 to -1½	1½ to 2	2½ to 3	1
Household consumption ⁷	3	1½	-1½ to -1	1¼ to 1¾	2¼ to 2¾	1
General government consumption	1¾	2¾	2¾	1	0	1
Fixed investment	7	-4½	-8¼ to -7¾	2¼ to 2¾	6½ to 7	2¾
Change in inventories ⁸	¼	0	-¼ to 0	0	0	¼
Exports of goods and services ⁹	-4½	¾	¼ to ¾	3¼ to 3¾	5¼ to 5¾	3
Imports of goods and services ⁹	-1¾	½	-2½ to -2	2½ to 3	4 to 4½	2¾
Exports of goods and services (excluding MTIC)	1¼	¾	0 to ½	3¼ to 3¾	5¼ to 5¾	-
Imports of goods and services (excluding MTIC)	3½	½	-2¾ to -2¼	2½ to 3	4 to 4½	-
Balance of payments current account						
£ billion	-52½	-41¾	-41	-41½	-39¼	12¼
Per cent of GDP	-3¾	-2¾	-2¾	-2¾	-2½	¾
Inflation						
CPI (Q4)	2	3¾	½	2¼	2	-
Producer output prices (Q4) ¹⁰	4	6	2	2½	2	1¼
GDP deflator at market prices	2¾	3½	1¾	2½	2¾	½
Money GDP at market prices						
£ billion	1,401	1,461	1,469 to 1,477	1,529 to 1,545	1,615 to 1,640	12
Percentage change	6	4¼	½ to 1	4 to 4½	5½ to 6	¾

¹ The forecast is consistent with the preliminary estimate data for the third quarter of 2008, released by the Office for National Statistics on 24 October 2008. See also footnote 1 on the second page of this Annex.

² All growth rates in tables throughout this Annex are rounded to the nearest ¼ percentage point.

³ As in previous Budget and Pre-Budget Reports, the economic forecast is presented in terms of forecast ranges, based on alternative assumptions about the supply-side performance of the economy. The mid-points of the forecast ranges are anchored around the neutral assumption for the trend rate of output growth of 2¾ per cent. The figures at the lower end of the ranges are consistent with the deliberately cautious assumption of trend growth used as the basis for projecting the public finances, which is a ¼ percentage point below the neutral assumption.

⁴ The size of the growth ranges for GDP components may differ from those for total GDP growth because of rounding and the assumed invariance of the levels of public spending within the forecast ranges.

⁵ Average absolute errors for year-ahead projections made in autumn forecasts over the past 10 years. The average errors for the current account are calculated as a per cent of GDP with £ billion figures calculated by scaling the errors by forecast money GDP in 2009.

⁶ Further detail on the expenditure components of GDP is given in Table A10.

⁷ Includes households and non-profit institutions serving households.

⁸ Contribution to GDP growth, percentage points.

⁹ Figures upto and including 2008 are distorted by MTIC.

¹⁰ Excluding excise duties.

Table A10: Gross domestic product and its components

		£ billion chained volume measures at market prices, seasonally adjusted									
	General government consumption ¹	Household consumption ¹	Fixed investment	Change in inventories	Domestic demand ²	Exports of goods and services	Total final expenditure	Less imports of goods and services	Plus statistical discrepancy ³	GDP at market prices	
2007	818.4	253.2	227.2	6.8	1306.2	349.3	1655.5	389.7	0.6	1266.4	
2008	831.6	260.3	216.9	6.5	1315.9	351.8	1667.8	392.1	0.8	1276.4	
2009	819.7 to 824.2	267.7	198.8 to 199.9	4.1 to 5.6	1290.3 to 1297.4	352.3 to 354.3	1642.6 to 1651.7	382.0 to 384.1	0.8	1261.4 to 1268.3	
2010	830.8 to 839.4	270.7	203.1 to 205.2	3.7 to 6.6	1308.2 to 1321.9	364.0 to 367.8	1672.2 to 1689.6	391.3 to 395.4	0.8	1281.7 to 1295.1	
2011	850.3 to 863.3	270.9	216.3 to 219.6	3.2 to 7.4	1340.7 to 1361.2	383.2 to 389.1	1723.9 to 1750.3	406.5 to 412.7	0.8	1318.2 to 1338.4	
2007 1st half	405.4	126.1	112.7	2.1	646.6	172.9	819.5	191.0	0.3	628.8	
2nd half	413.1	127.1	114.5	4.8	659.6	176.4	836.0	198.7	0.4	637.6	
2008 1st half	418.0	128.8	111.6	1.6	660.7	177.0	837.7	197.2	0.4	640.9	
2nd half	413.7	131.5	105.3	4.9	655.3	174.8	830.1	194.9	0.4	635.5	
2009 1st half	408.8 to 410.6	133.3	100.2 to 100.6	2.3 to 2.8	644.5 to 647.3	175.3 to 176.1	819.9 to 823.4	191.3 to 192.1	0.4	629.0 to 631.7	
2nd half	410.9 to 413.7	134.4	98.7 to 99.3	1.8 to 2.7	645.8 to 650.1	177.0 to 178.2	822.8 to 828.3	190.8 to 192.0	0.4	632.4 to 636.7	
2010 1st half	413.5 to 417.3	135.1	100.3 to 101.2	1.8 to 3.1	650.7 to 656.7	179.9 to 181.5	830.6 to 838.2	193.5 to 195.2	0.4	637.6 to 643.4	
2nd half	417.3 to 422.1	135.6	102.8 to 104.0	1.9 to 3.5	657.5 to 665.2	184.1 to 186.2	841.6 to 851.4	197.9 to 200.2	0.4	644.1 to 651.6	
2011 1st half	422.6 to 428.5	135.7	106.3 to 107.8	1.6 to 3.6	666.1 to 675.5	189.0 to 191.7	855.1 to 867.2	201.5 to 204.4	0.4	654.0 to 663.2	
2nd half	427.7 to 434.8	135.2	110.0 to 111.8	1.6 to 3.8	674.5 to 685.7	194.2 to 197.4	868.7 to 883.1	204.9 to 208.3	0.4	664.2 to 675.2	
Percentage change on a year earlier ^{4,5}											
2007	3	1¾	7	¼	3¾	-4½	1¾	-1¾	0	3	
2008	1½	2¾	-4½	0	¾	¾	¾	½	0	¾	
2009	-1½ to -1	2¾	-8¼ to -7¾	-¼	-2 to -1½	¼ to ¾	-1½ to -1	-2½ to -2	0	-1¼ to -¾	
2010	¼ to 1¾	1	2¼ to 2¾	0	1½ to 2	¾ to 3¾	1¾ to 2¼	2½ to 3	0	1½ to 2	
2011	2¼ to 2¾	0	6½ to 7	0	2½ to 3	5¼ to 5¾	3 to 3½	4 to 4½	0	2¾ to 3¼	

¹ Includes households and non-profit institutions serving households.

² Also includes acquisitions less disposals of valuables.

³ Expenditure adjustment.

⁴ For change in inventories and the statistical discrepancy, changes are expressed as a percent of GDP.

⁵ Growth ranges for GDP components do not necessarily sum to the ½ percentage point ranges for GDP growth because of rounding and the assumed invariance of the levels of public spending within the forecast ranges.