

Growth of the UK economy since Budget 2006 has been higher than forecast, with slightly above-trend growth narrowing the output gap. Domestically, growth has been driven by higher than expected business investment. Externally, the recovery in the euro area has boosted export growth. Together, these developments have further helped to rebalance UK economic growth.

GDP growth strengthened through 2005, and there have now been five consecutive quarters of non-oil growth at above or in line with trend rates. The economy has expanded for 57 consecutive quarters, the longest unbroken expansion on record in the UK and the longest ongoing expansion in any OECD economy. Domestically-generated inflationary pressures have remained in check despite energy and food prices pushing overall inflation higher. Total employment in the UK reached 29 million for the first time in 2006. Labour supply growth has been particularly strong this year, boosted by a sharp fall in inactivity adding to continued strong growth in the population of working age. These developments further demonstrate the payoff to the Government's macroeconomic policy framework and promotion of flexible and open labour, product and capital markets.

The world economy is in the midst of its strongest period of growth for more than 30 years. While Asia continues to lead the way, growth rates across Latin America and Africa have been strong. Growth in the G7 has become more balanced with stronger growth in the euro area and Japan offsetting moderation in the US. Since Budget 2006, global inflationary pressures have increased, prompting central banks across the OECD to tighten monetary policy.

In light of new evidence published since Budget 2006, the Treasury has reviewed the underpinning assumptions for its post-2006 neutral trend output growth projection, which it has revised to continue at  $2\frac{3}{4}$  per cent a year, consistent with the neutral rate since 2001. This revised  $2\frac{3}{4}$  per cent trend rate of output growth anchors the Pre-Budget Report economic forecast:

- GDP is forecast to grow by  $2\frac{3}{4}$  per cent in 2006, above the Budget 2006 forecast range, rising to  $2\frac{3}{4}$  to  $3\frac{1}{4}$  per cent in 2007 when the output gap is expected to close. Growth is expected to remain close to trend in 2008 and 2009; and
- CPI inflation is expected to average  $2\frac{1}{2}$  per cent in late 2006 reflecting increases in energy and food prices, but to return to target during the second half of 2007 as oil price induced pressures recede and inflation expectations remain firmly anchored.

## INTRODUCTION<sup>1,2</sup>

**A.1** This chapter discusses recent economic developments and provides updated forecasts for the UK and world economies in the period to 2009. It begins with an overview of developments and prospects in the world economy, which sets the global context for recent developments and prospects in the UK. It then outlines the UK economic forecast, before concluding with a more detailed discussion of sectoral issues, the components of growth and risks surrounding the forecast.

## THE WORLD ECONOMY

### Overview

**A.2** The world economy is now in its third consecutive year of GDP growth of around 5 per cent. Continued buoyancy in emerging markets, particularly in Asia, is expected to sustain global growth at similar rates in 2007, as growth in the G7 moderates somewhat. This would represent the first time since the early 1970s that world growth had averaged close to 5 per cent over a four-year period, and compares with an average growth rate through the 1980s and 1990s of 3¼ per cent.

**A.3** Since 2003, world growth has been driven by the US and Asia, particularly China. Strong domestic demand in the US has been one of the drivers of export and investment growth in Asia. Through 2006, growth in the US has moderated, largely due to lower residential investment. This has been offset by a broadening of the recovery in the euro area, an improvement in growth in Japan and continued momentum in the rest of Asia and other emerging economies. In 2007, slower G7 growth at the whole economy level masks continued robust investment underpinned by strong corporate profitability.

**Table A1: The world economy**

	Percentage changes on a year earlier, unless otherwise stated					
			Forecast			
	2004	2005	2006	2007	2008	2009
World GDP	4¾	4¾	5	4¾	4½	4½
Major 7 countries <sup>1</sup>						
Real GDP	3	2½	2¾	2¼	2½	2½
Consumer price inflation <sup>2</sup>	2½	2½	2½	2¼	2	2
Euro area GDP	1¾	1½	2½	2	2¼	2¼
World trade in goods and services	10	7¼	8¾	7½	7½	7
UK export markets <sup>3</sup>	8	5¾	7¾	6½	6¼	6¼

<sup>1</sup> G7: US, Japan, Germany, France, UK, Italy and Canada.

<sup>2</sup> Per cent, Q4.

<sup>3</sup> Other countries' imports of UK goods and services weighted according to their importance in UK exports.

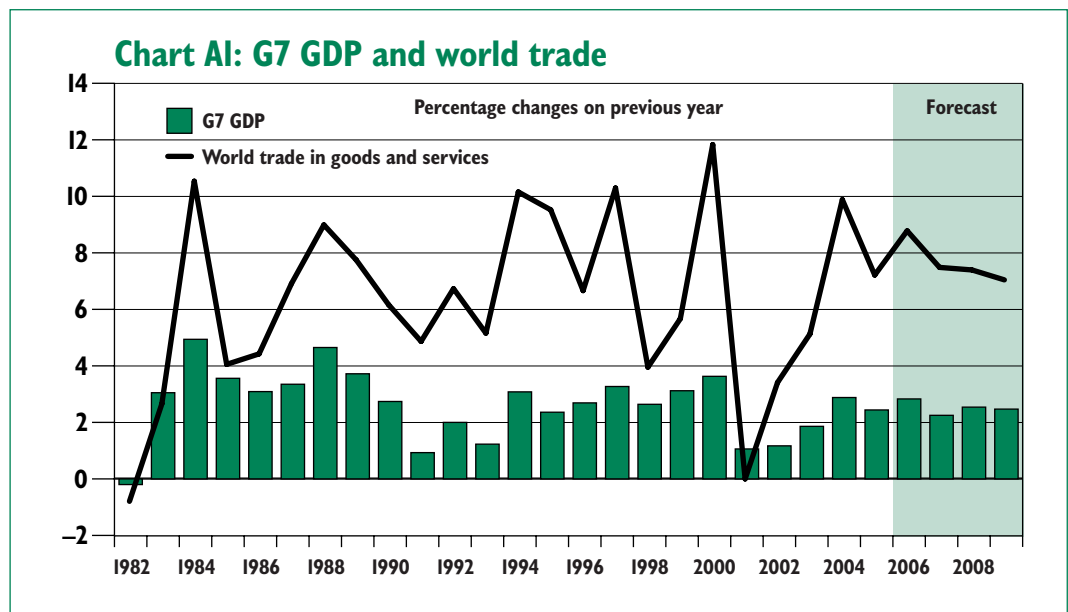
<sup>1</sup> The UK forecast is consistent with National Accounts and balance of payments statistics to the second quarter of 2006 released by the Office for National Statistics (ONS) on 27 September 2006, and output, income and expenditure data for the third quarter of 2006 released on 24 November 2006. A fully consistent National Accounts dataset for the third quarter will be published by the ONS on 21 December. A detailed set of charts and tables relating to the economic forecast is available on the Treasury's internet site (<http://www.hm-treasury.gov.uk>). Copies can be obtained on request from the Treasury's Public Enquiry Unit (020 7270 4558).

<sup>2</sup> 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.

**A.4** Asia accounted for more than half of world growth in 2005, with two fifths coming from China and India alone, and is expected to maintain this share of world growth over the forecast horizon. This reflects Asia's large and growing role as a global manufacturing hub, which has led to the regionalisation of production systems where parts and semi-finished products frequently cross national borders before the production process is complete. Asia accounts for over half of the world's population, with 38 per cent in China and India. So, while the region is already a significant source of world output growth, rising income levels in these economies mean they are likely to become an even more significant source of demand in the future.

**A.5** Persistent differences in the growth of domestic demand across the world have coincided with the widening of current account imbalances. In particular, the US current account deficit has risen above 6½ per cent of GDP this year, while across Asia, and in parts of Europe and the Middle East, surpluses have continued to grow. Governments have channelled these surpluses into foreign exchange reserves in order to reduce upward pressure on exchange rates, particularly in Asia. A gradual shift towards more domestic demand driven growth in current account surplus countries could play some role in the smooth rebalancing of global current account positions.

**A.6** World trade has recovered strongly, with growth rising from zero in 2001 to 10 per cent in 2004. Following a 7¼ per cent increase in 2005, world trade is expected to grow by 8¾ per cent in 2006 and 7½ per cent in 2007. Growth in world trade remains heavily orientated towards Asia.



**A.7** Despite robust G7 growth rates reducing spare capacity, and the rising price of oil and some other commodity prices, G7 inflation has remained broadly stable over the past two years. To ensure inflation continues to remain contained, G7 central banks have moved to realign monetary policy, with interest rate increases starting in the US in the second half of 2004 becoming more widespread in 2005 and 2006. Interest rates have been raised this year in all the G7 economies and all but three of the 30 OECD countries – see Box A3.

## G7 activity

**United States A.8** The US expansion remained resilient during 2005 and early 2006 in the face of a range of potentially growth-dampening factors. These included a significant increase in gasoline prices caused by rising oil prices and the hurricane-related disruption to refining capacity in September 2005, and monetary policy tightening with interest rates rising from 1 per cent in June 2004 to 5¼ per cent by June 2006.

**A.9** US GDP growth has moderated since the first quarter of 2006, primarily due to a contraction in residential investment. This adjustment is likely to continue in the first half of 2007. Strong business investment growth and healthy private consumption growth are likely to drive domestic demand, and demand for imports, through 2007. US growth rates in 2006 and 2007 are expected to compare well with other major advanced economies, with the strong labour market and solid productivity gains reflecting the flexibility and resilience of the economy. Risks to the outlook for US growth centre on the ongoing correction in the housing market.

**Euro area A.10** Stronger growth up to the third quarter of 2006 has sustained the euro area recovery. Economic activity has broadened through higher business investment and stronger domestic consumption. Solid export growth has also contributed positively. The acceleration of quarterly GDP in 2006 has put the euro area on an above-trend growth path, narrowing the negative output gap. A gradual recovery in the labour market should continue to support private consumption, helping to rebalance growth further. However, growth may be temporarily dampened by weaker private consumption in the first half of 2007 resulting from pre-announced fiscal tightening measures, notably an increase in Germany's value-added tax (VAT) rate in January 2007. Overall, continued momentum of business investment, and moderate private consumption growth, are expected to drive euro area domestic demand growth in 2007.

**A.11** Euro area growth in 2006 has been more evenly distributed than in 2005 in terms of individual countries' performance. In particular, economic activity in Germany picked up, with consensus expectations for growth of 2.3 per cent in 2006, the fastest rate of expansion since 2000. Cross-country differences in the sources of growth have persisted, with growth in Germany and Italy largely led by net exports and business investment, while the expansions in France and Spain have been mainly driven by private consumption.

**Japan A.12** Growth in Japan is now on a more sustainable footing after a decade of weak growth, deflation and significant structural difficulties. GDP growth picked up firmly during 2004 and 2005, and is expected to remain strong in 2006, with consensus expectations around 2¾ per cent. This contrasts with an average rate of growth of less than 1 per cent a year between 1992 and 2002. Strong export growth has continued to provide a key stimulus, while business investment has grown firmly in response to restructuring in the corporate and financial sectors and improving profitability. Looking ahead, a recovery in the labour market should support private consumption. Growth is expected to moderate somewhat in 2007, though to remain above trend as the expansion becomes more entrenched.

**Box A1: Government policy on EMU**

The Government's policy on membership of the single currency was set out by the Chancellor in his statement to Parliament in October 1997. In principle, the Government is in favour of UK membership; in practice, the economic conditions must be right. The determining factor is the national economic interest and whether, on the basis of an assessment of the five economic tests, the economic case for joining is clear and unambiguous. An assessment of the five economic tests was published in June 2003, which concluded that: "since 1997, the UK has made real progress towards meeting the five economic tests. But, on balance, though the potential benefits of increased investment, trade, a boost to financial services, growth and jobs are clear, we cannot at this point in time conclude that there is sustainable and durable convergence or sufficient flexibility to cope with any potential difficulties within the euro area."

As part of the policy of "prepare and decide", the Government coordinates appropriate euro preparations across the UK economy. The Government also supports business in dealing with the euro as a foreign currency. Further information is available on the Treasury's euro website [www.euro.gov.uk](http://www.euro.gov.uk).

On the Stability and Growth Pact, the Government continues to emphasise the need for a prudent interpretation of the Pact as described in Budget 2005. The reforms to the Pact agreed in March 2005 rightly place a greater focus on the avoidance of pro-cyclical policies, and on achieving low debt levels and thereby enhancing the long-term sustainability of public finances, with the flexibility for low debt countries such as the UK to invest in the provision of much needed public services. The Government continues to work closely with Member States and EU institutions as the success of the reforms will depend on how they are implemented. It is also essential to recognise the importance of national frameworks and national ownership of fiscal policy.

The Chancellor's statement to the House of Commons on 9 June 2003 on UK membership of the European single currency set out a reform agenda of concrete and practical steps to address the policy requirements identified by the June 2003 assessment, the latest progress report on which was made in Budget 2006. While the Government did not propose initiating a euro assessment at the time of Budget 2006, the Treasury will again review the situation at Budget time next year as required by the Chancellor's June 2003 statement.

## Emerging markets and developing economies

**A.13** Emerging market economies have continued to perform well, buoyed by strong global growth and improving domestic economic fundamentals. A period of financial market volatility and a degree of uncertainty in May and June 2006 proved to be short-lived, with equity prices and exchange rates subsequently recovering most of the lost ground. While 2007 should continue to see solid growth, this would moderate in the event of a sharper than expected US slowdown. A rebalancing of growth towards domestic demand would serve to mitigate the external risks.

**China and India A.14** China outperformed expectations in the first three quarters of 2006, growing by almost 11 per cent on a year earlier. Government measures aimed at reining back the economy, and in particular investment, appear to have had an impact over the summer. However, the current account surplus has remained at record levels. Growth in China continues to outpace the rest of Asia, but growth across the whole region has been strong. The Indian economy expanded by 9 per cent in the first three quarters of 2006, propelled by strong growth in both services and manufacturing.

**Emerging Europe A.15** Growth in emerging Europe was above 5½ per cent in 2004 and 2005, driven by increased exports to the euro area and robust domestic demand, supported by expanding domestic credit. Looking ahead, growth of economic activity in the region is expected to moderate as external demand slows and the monetary policy response to rising inflation begins to feed through. Continued progress on structural reform is required in existing Member States and in countries aspiring to join the European Union.

**Latin America A.16** Growth in Latin America continues to be in the range of 4 to 5 per cent. Commodity prices have supported trade surpluses and domestic demand has strengthened. A number of countries have taken steps to reduce their external vulnerabilities by reducing foreign currency denominated debts, building up reserves, and issuing local currency bonds.

**Africa A.17** Africa's GDP is expected to grow by 5½ per cent in 2006, which would be the third successive year that growth has exceeded 5 per cent. The IMF expects growth to increase to nearly 6 per cent in 2007. Oil-exporting countries in Africa have contributed significantly to the strongest run of growth in four decades, while increases in a range of other commodity prices have benefited a number of African economies.

## World trade

**A.18** Compared with the Budget 2006 forecast, world trade growth was stronger in 2005, growing by 7¼ per cent. World trade growth is expected to pick up in 2006 to 8¾ per cent, reflecting a higher contribution from Asia and Europe, before easing to rates of around 7½ per cent over the forecast horizon.

**A.19** Growth of UK export markets has been revised lower in 2004 and 2005 due to lower import estimates in the US and Middle East. In 2006, stronger than expected growth in Europe, which is the destination of around 50 per cent of total UK exports, has provided a boost to UK export markets. While Asia contributes significantly to world trade growth, it directly accounts for a relatively low share of demand for UK exports.

**A.20** The UK, like many developed economies, has lost market share in the export of goods in recent years. Between 1998 and 2005, the UK's share of world goods exports fell from 5 per cent to 3¾ per cent, while the US share of world goods exports fell from 12½ per cent to 8½ per cent. This reflects faster growing emerging market economies becoming more integrated in world trade, the competitiveness of low-cost countries in high-volume production, and the increase in intra-Asia trade in parts and semi-processed goods. In contrast, the UK plays a larger role in world trade of services, with a share of exports that has remained around 8 per cent over the period. Focusing on business and finance services, which account for a third of UK output, the UK's share has remained around 11 to 12 per cent, second only to the US at 16 per cent.

**A.21** The positive impact of free trade on global growth and prosperity makes increasing protectionist reactions to global competitive pressures a concern. To ensure the benefits of world trade growth continue to accrue, the challenges presented by the changing structure of world production need to be met through the adoption of domestic policies that enhance flexibility and facilitate the movement of resources between sectors. Erecting barriers to trade is costly to consumers in developed economies, while simultaneously blocking a route to improved living standards in the developing world.

## Oil and commodity prices

**A.22** Oil prices have increased sharply since the beginning of 2004, although in real terms they have remained below historic peaks. The price of Brent crude oil, the European standard, rose from a low of \$10 in 1999 to a peak of over \$78 a barrel in early August 2006. Prices have since declined to around \$60 a barrel.

**A.23** Rapid growth in global demand for oil, particularly from emerging economies, and limited investment in production and refining, as well as risks of supply disruptions, were the primary causes of the initial rise in oil prices. While demand for oil remains high, the recent decline in the oil price can be attributed to a reduction in underlying supply risks from somewhat less geo-political uncertainty and the relatively calm passing of the US hurricane season.

**A.24** Looking ahead, high nominal oil prices are expected to be sustained into the medium term. Oil futures prices have remained high, reflecting continued, predominantly upside, risks and spare capacity below historical norms. Geo-political uncertainties, particularly in the Middle East and Nigeria, and the weather, may contribute to supply disruptions. In addition, OPEC cut production by 1.2 million barrels per day in order to defend an oil price of \$60 a barrel. The impact of this cut on oil prices is partly offset by the market's reaction to a corresponding increase in OPEC spare capacity, which other things equal reduces the associated risk premium. The International Energy Agency's latest demand and supply projections suggest that market tightness will ease in the second half of 2007.

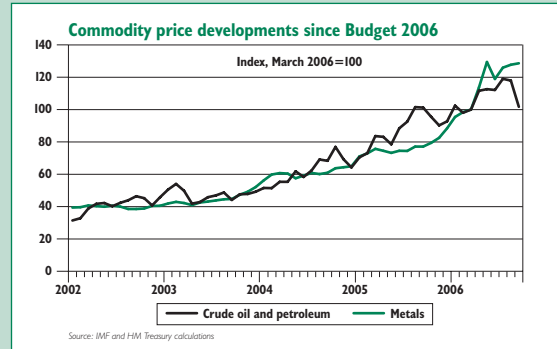
**A.25** Non-fuel commodity prices rose in 2006 reflecting strong demand for industrial inputs and some supply constraints. The largest increases came in base metals such as copper, lead and iron ore, though prices of food, beverages and agricultural commodities such as timber also rose. There was some volatility in non-fuel commodity prices during May and June 2006.

**Box A2: Oil, non-fuel commodities and global demand**

Fuel and many non-fuel commodity prices have increased significantly over the past four years. In some cases, notably many base metals, the increase has been rapid. The rise in metals prices has largely been demand driven, particularly from China and other emerging markets, but has been exacerbated by supply constraints stemming from low investment in productive capacity in the 1990s and early 2000s. The combined effect has been to reduce global inventories, creating tighter market conditions.

Iron ore, zinc, lead and copper prices have risen by between 113 and 255 per cent since 2003.<sup>a</sup> Futures prices have also risen substantially, though markets and external forecasters expect some moderation from current high prices as new supply comes on line.

Changes in metals prices tend to be positively correlated with the business cycle and can provide a useful indicator for tracking changes in global demand. Historically, most periods of large rises in metals prices have been associated with strong world growth. Notably, the recent decline in energy prices has not been matched by metals prices, suggesting that global demand growth is likely to remain strong.



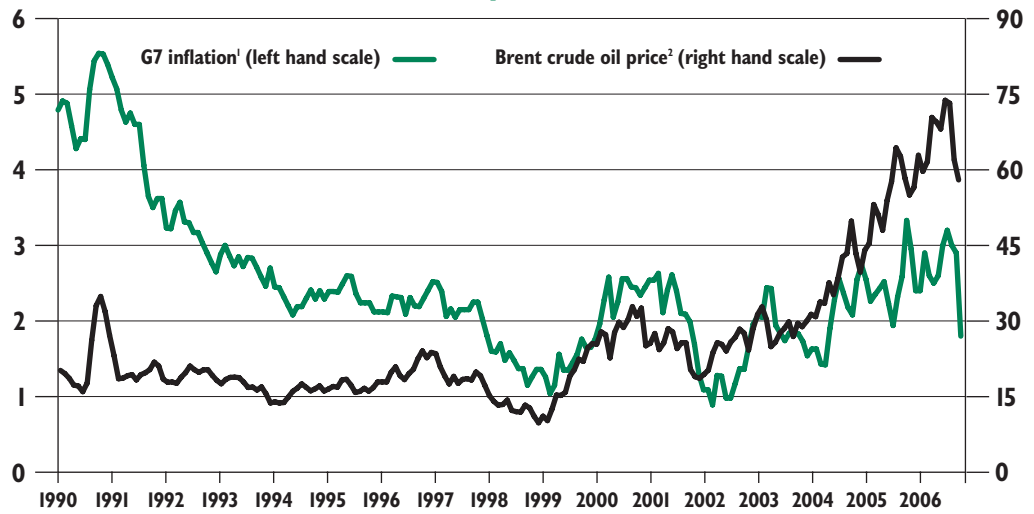
<sup>a</sup> Based on IMF data from the September 2006 *World Economic Outlook* database, including IMF forecasts to the end of 2006.

**G7 inflation**

**A.26** G7 headline inflation rates continue to be dominated by energy price developments. The rise in headline inflation during the course of 2006 was arrested by the decline in energy prices since the summer. Headline inflation rates have reacted most to energy prices in the US, where energy makes up a larger part of the price index. In Japan, the headline inflation rate moved above zero in 2006, but some deflationary pressures remain.

**A.27** In the G7 the core rate of inflation, which excludes food and energy prices, remained stable to March 2006 but has risen slightly thereafter, reflecting in particular developments in the US. Given the sharp rise and continued high level of energy prices, as well as some other commodity prices, the pick-up in G7 core inflation to just 2 per cent is modest. This has been attributed to a number of factors, including the greater credibility of monetary authorities and frameworks in helping to anchor inflation expectations, the competitive pressures on prices and wages from an increasingly integrated world economy, and the declining energy intensity of world output.

**Chart A2: G7 inflation and oil prices**

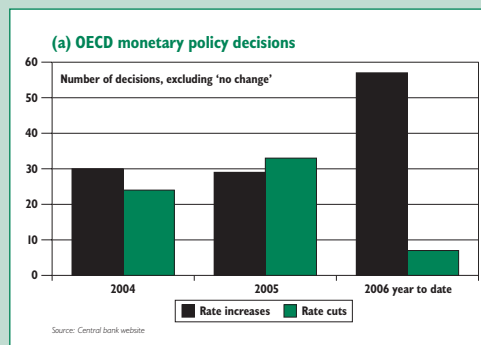


<sup>1</sup>Consumer price index, percentage change on a year earlier  
<sup>2</sup>US dollar per barrel

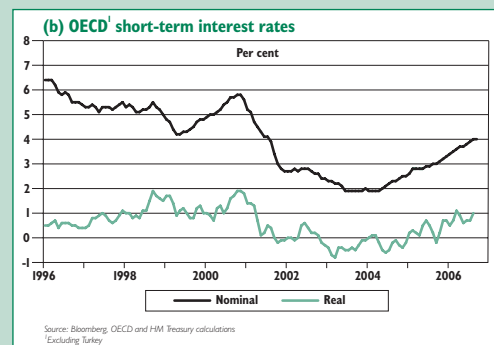
**Box A3: Inflation and monetary policy in advanced economies**

Since March 2006, headline inflation across the OECD countries has risen from 2.5 to 3.0 per cent while core inflation, excluding energy and food, has risen from 1.8 to 2.1 per cent. Although these increases are relatively small, they follow a decade in which the inflation rate has steadily fallen. Growth of broad monetary aggregates, which some central banks follow, most explicitly the European Central Bank, has remained high.

In response to increasing inflationary pressures arising from energy prices and tighter capacity constraints and, particularly in Europe, rapid broad money growth, 2006 has seen a broad-based tightening of monetary policy across the OECD. Of the 64 interest rate moves decided by OECD central banks in the year to November, almost 90 per cent have been increases; only in Poland and Mexico have rates been cut (chart a). As a result, nominal short-term interest rates have risen to their highest level since 2001. However, with inflation also higher, real interest rates have risen by less (chart b) and remain at low levels.



Source: Central bank website



Source: Bloomberg, OECD and HM Treasury calculations  
 Excluding Turkey

## THE UK ECONOMIC FORECAST

### The Treasury's approach to macroeconomic forecasting

**A.28** The Treasury's approach to forecasting macroeconomic developments accords with the 'growth cycle approach' favoured by many policymakers. At the heart of this approach is the estimate of the economy's 'trend' rate of growth, which provides the foundation for analysis of cyclical movements around that trend, the output gap, and developments in the components of demand. The Treasury's analysis of trend growth and the output gap is therefore central to the economic forecast that underpins the setting of fiscal policy. The trend growth assumption provides the medium-term anchor for the forecast. The current output gap estimate, and assessment of the economy's momentum through analysis of the individual income and expenditure components, inform judgement on the short-term path of the economy back to trend.

**A.29** The Treasury assesses trend growth in the economy 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 activity or employment.

**A.30** The Office for National Statistics (ONS) compiles estimates of non-oil GVA in the National Accounts, but its trend level is not directly observable and must therefore be estimated. A wide variety of methods are available for decomposing the level of output into its trend and cyclical components.<sup>3</sup> The Treasury's approach begins with the identification of 'on-trend' points, drawing on evidence from a broad range of economic indicators.<sup>4</sup> The rate of trend output growth in completed past cycles is then estimated as the average growth rate between adjudged start and end-of-cycle on-trend points.

**A.31** A different approach is required for estimating trend growth during the latest incomplete cycle and over the forecast horizon because the end-of-cycle on-trend point is unknown. The Treasury's approach is to decompose the change in trend output over past cycles into changes in four components: output per hour; average hours worked per worker; the employment rate; and working-age population. The next section contains a discussion of developments in these components and how they inform the overall trend growth estimate since the 2001 on-trend point.

**A.32** For any assumed trend rate of growth and trend level of output at a previous on-trend point, it is straightforward to calculate the size of the output gap implied by the latest National Accounts data on actual output. So it is important to evaluate to what extent this output gap estimate is plausible by assessing whether the output gap implied by this 'trend growth arithmetic' is consistent with evidence from a broad range of cyclical indicators. Recent economic developments and an assessment of the cyclical indicators are discussed in the following sections.

<sup>3</sup> See *Trend growth: recent developments and prospects*, HM Treasury, April 2002, and *Evidence on the UK economic cycle*, HM Treasury, July 2005, for further details on Treasury's approach to estimating trend growth and a discussion of alternative approaches, including statistical filtering techniques and more explicit economic model-based methods.

<sup>4</sup> Details of the indicators monitored by the Treasury can be found in the *Technical note on cyclical indicators*, HM Treasury, December 2005.

**A.33** The estimates of trend growth and the latest output gap provide the foundation for the detailed economic forecast. In the short term, the Treasury's judgement on the speed with which the economy will return to trend is informed by analysis of momentum in the key components of growth and their determinants, including assessment of the signals from private sector business survey-based indicators. In the medium term, once the economy is judged to have returned to trend, growth is generally held at its trend rate and the output gap at zero. That is not to suggest that the growth rate will actually be constant in later years of the forecast, but rather that future shocks to the economy are as likely to be positive as negative so that, on average, the best forecast of growth once present shocks have worked through will be the underlying trend rate.

## Assessment of trend growth

**New evidence since Budget 2006** **A.34** In the light of new evidence published since Budget 2006, the Treasury has reviewed its trend output growth projections. Analysis of the new evidence, set out in *Trend growth: new evidence and prospects* published alongside the Pre-Budget Report,<sup>5</sup> provides the basis for upward revision to the contribution of net inward migration to working-age population growth post-2006 by a  $\frac{1}{4}$  percentage point a year compared with the contribution assumed at the time of Budget 2006. This is a demographic rather than cyclical effect, and so can be properly reassessed before the end of the cycle. Recent new data on output, productivity and employment reinforce confidence in the Treasury's post-2001 projections for the other components of trend output growth. So the Treasury has revised the neutral estimate of trend output growth for the post-2006 period in line with the  $\frac{1}{4}$  percentage point upward revision to working-age population growth. Instead of falling to  $2\frac{1}{2}$  per cent a year, for the 2006 Pre-Budget Report the trend output growth projection will continue at the same  $2\frac{3}{4}$  per cent rate as since 2001.

**A.35** Consistent with past practice, projections of the public finances are based upon the lower end of the economic forecast ranges, which are anchored around the deliberately cautious assumption of trend output growth a  $\frac{1}{4}$  percentage point below the neutral view. The upward revision to the neutral estimate implies an equal upward revision to the cautious estimate from  $2\frac{1}{4}$  to  $2\frac{1}{2}$  per cent a year in the post-2006 projection period. As required by the *Code for fiscal stability*, the National Audit Office (NAO) has audited this change to a key assumption underlying the fiscal projections.<sup>6</sup> The NAO has concluded that, in light of external forecasts and other information, the assumption remains reasonable and cautious.<sup>7</sup>

<sup>5</sup> *Trend growth: new evidence and prospects*, HM Treasury, December 2006.

<sup>6</sup> *Code for fiscal stability*, HM Treasury, November 1998.

<sup>7</sup> *Audit of assumptions for the 2006 Pre-Budget Report*, NAO, December 2006.

**A.36** Table A2 presents historical estimates of trend output growth and its decomposition for the first half of the current cycle and the previous cycle, together with the forward-looking assumptions for trend growth based on projections of its components to the end of this cycle and beyond.

**Table A2: Contributions to trend output growth<sup>1</sup>**

	Estimated trend rates of growth, per cent per annum					
	Trend output per hour worked <sup>2,3</sup>		Trend	Trend	Population	Trend
	Underlying	Unadjusted	average hours	employment	of working	
(1)	(2)	worked <sup>2</sup>	rate <sup>3</sup>	age <sup>4</sup>	output	
<b>1986Q2 to 1997H1</b>						
Budget 2006	2.22	2.04	-0.11	0.36	0.24	<b>2.55</b>
Latest data	2.10	1.92	-0.11	0.36	0.24	<b>2.43</b>
<b>Over the recent past</b>						
<b>1997H1 to 2001Q3</b>						
Budget 2002	2.14	1.96	-0.37	0.36	0.66	<b>2.63</b>
PBR 2002 and Budget 2003	2.35	2.14	-0.47	0.43	0.50	<b>2.61</b>
PBR 2003 and Budget 2004	2.65	2.44	-0.47	0.42	0.54	<b>2.94</b>
PBR 2004 and Budget 2005	2.70	2.50	-0.43	0.41	0.58	<b>3.06</b>
PBR 2005 and Budget 2006	2.79	2.59	-0.44	0.42	0.58	<b>3.15</b>
Latest data	2.81	2.60	-0.44	0.42	0.58	<b>3.16</b>
<b>Projection<sup>5</sup></b>						
<b>2001Q3 to 2006Q4</b>						
Budget 2002	2.10	2.00	-0.1	0.2	0.6	<b>2<sup>3</sup>/<sub>4</sub></b>
PBR 2002, Budget/PBR 2003, Budget/PBR 2004 and Budget 2005	2.35	2.25	-0.1	0.2	0.5	<b>2<sup>3</sup>/<sub>4</sub></b>
PBR 2005 and Budget 2006	2.25	2.15	-0.2	0.2	0.6	<b>2<sup>3</sup>/<sub>4</sub></b>
PBR 2006 <sup>6,7</sup>	2.25	2.15	-0.2	0.2	0.7	<b>2<sup>3</sup>/<sub>4</sub></b>
<b>2006Q4 onwards</b>						
PBR 2004 and Budget 2005	2.35	2.25	-0.1	0.2	0.3	<b>2<sup>1</sup>/<sub>2</sub></b>
PBR 2005 and Budget 2006	2.25	2.15	-0.2	0.2	0.4	<b>2<sup>1</sup>/<sub>2</sub></b>
PBR 2006 <sup>6</sup>	2.25	2.15	-0.2	0.2	0.6	<b>2<sup>3</sup>/<sub>4</sub></b>

<sup>1</sup>Treasury analysis based on judgement that 1986Q2, 1997H1 and 2001Q3 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.

Columns (2) + (3) + (4) + (5) = (6).

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

<sup>2</sup> 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.

<sup>3</sup> 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 hours lag output by just one quarter, though this lag is hard to support by econometric evidence. Hours worked and the employment rate are measured on a working-age basis.

<sup>4</sup> UK resident household basis.

<sup>5</sup> Neutral case assumptions for trend from 2001Q3.

<sup>6</sup> Underlying trend assumptions around which the mid-points of the GDP forecast growth ranges from 2006Q3 are anchored.

<sup>7</sup> The projection of working-age population is consistent with average growth since 2001Q3. This may change as a result of population data revisions.

**Box A4: External estimates of UK trend output growth**

To enhance further the transparency of the Treasury's economic forecast, the National Audit Office (NAO) recommended that the Treasury should report on its regular internal monitoring of external estimates of trend growth.<sup>a</sup> When considering these external estimates, it should be taken into account that most external organisations' trend estimates are made on a whole economy GDP basis, whereas the Treasury's estimate is based on non-oil GVA. Due to the ongoing reduction in the size of the North Sea oil and gas sector, the Treasury's post-2006 non-oil GVA trend output growth estimate is equivalent to a whole economy GDP-based estimate approximately 0.1 percentage points lower. Prospects for North Sea oil and gas output, including the arithmetic behind this 0.1 percentage point difference, are discussed in paragraph A.93.

Since Budget 2006, many external institutions have revised up their estimates of the UK's trend rate of output growth in the post-2006 period.<sup>b</sup> These include the Organisation for Economic Cooperation and Development (OECD), National Institute of Economic and Social Research (NIESR), Oxford Economics and Goldman Sachs. The Treasury's 2¾ per cent neutral trend output growth estimate for the post-2006 period lies within the 2.6 to 2.9 per cent range of external estimates cited in the table below. The Treasury's deliberately cautious trend output growth assumption of 2½ per cent, used for the purposes of projecting the public finances, is below the range of external estimates. Adjusting from a non-oil to a more comparable whole economy basis, the Treasury's cautious assumption would be 2.4 per cent, and so materially below the range of external estimates. The NAO has audited the post-2006 cautious trend growth assumption and has concluded that, in light of external forecasts and other information, it remains reasonable and cautious.

**Estimates of trend growth for the UK (per cent, per annum)**

Organisation	Estimated trend rate of growth	Period
HM Treasury neutral estimate	2¾	2007-2011
HM Treasury cautious assumption for the public finance projections	2½	2007-2011
OECD <sup>1</sup>	2.7	2006-2008
EU Economic Policy Committee <sup>2</sup>	2.8	2004-2011
EC <sup>3</sup>	2.7	2006-2007
IMF <sup>4</sup>	2.6	2006-2011
Oxford Economics <sup>5</sup>	2.7	2006-2010
NIESR <sup>6</sup>	2.6	2006-2014
Goldman Sachs <sup>7</sup>	2.9	2005-2010

<sup>1</sup> *Economic Outlook 80*, OECD, November 2006.

<sup>2</sup> *The 2005 projections of age-related expenditure (2004-2050) for the EU25 Member States: underlying assumptions and projection methodologies*, Economic Policy Committee and European Commission, November 2005.

<sup>3</sup> *Autumn forecast*, European Commission, 2006.

<sup>4</sup> *Article IV Staff Report on the UK*, IMF, March 2006. The IMF estimate dates from early 2006 and therefore may not reflect recent strong growth in labour supply.

<sup>5</sup> *UK Weekly*, Oxford Economics, October 2006.

<sup>6</sup> *Economic Review No: 198*, NIESR, October 2006.

<sup>7</sup> *UK Economics Analyst*, Goldman Sachs, November 2006.

<sup>a</sup> *Audit of assumptions for the 2005 Pre-Budget Report*, NAO, December 2005.

<sup>b</sup> For a detailed discussion of external estimates of trend growth refer to *Trend growth: new evidence and prospects* published alongside the Pre-Budget Report.

**Productivity growth A.37** At the time of Budget 2006, National Accounts and labour market data suggested a degree of weakness in productivity growth from the middle of 2004 that was difficult to explain. Subsequent upward revisions to output growth, coupled with strong growth during 2006, indicate that productivity growth since 2004 has been more consistent with the projections set out in Table A2 than was the case at Budget time. The latest data shows that actual growth in output per hour worked has averaged 2.4 per cent a year since the on-trend point in 2001, compared with its unadjusted trend projection of 2.15 per cent, enhancing confidence in the trend projection.

**Labour market developments A.38** Total employment in the UK reached 29 million for the first time ever in 2006, having increased by almost 200,000 in the year to the third quarter. Growth has slowed slightly from 1 per cent in 2005 to  $\frac{3}{4}$  per cent in the first three quarters of 2006, with the slowdown more than fully explained by the level of public sector employment having plateaued. Private sector employment growth has picked up from  $\frac{3}{4}$  per cent in 2005 to 1 per cent in the first half of 2006. With employment among older workers up more than 9 per cent on a year earlier so far in 2006, working-age employment growth has been below that of total employment. Favourable supply-side conditions are expected to support GDP growth in 2007 and beyond, leading to a reversal of the recent rise in unemployment – see Box A5. This is consistent with some slack in the labour market.

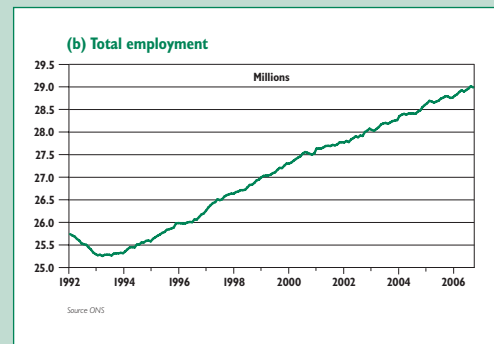
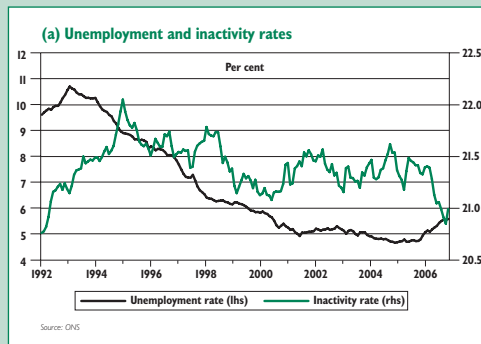
**A.39** As the economy moved below trend in 2002 and 2003, average hours worked per week fell from  $32\frac{1}{2}$  to 32. Since late 2003, average hours have stabilised. Thus, recent movements in average hours show reversion towards their projected downward trend of 0.2 per cent a year. Currently, average hours are estimated to be only slightly below trend, and appear consistent with the trend assumption.

**A.40** A key ongoing uncertainty affecting labour market data relates to the measurement of migration flows and growth in the working-age population. Official population data, to which the Labour Force Survey (LFS) sample is grossed, are based on the UN definition of a migrant as an individual who changes their country of residence for a period of at least one year. As such, temporary foreign workers are not properly picked up in the LFS employment data. The ONS has a work programme aimed at improving migration statistics.

**Box A5: Labour supply**

The employment rate has recently held relatively steady during a period in which the labour force has been boosted by strong working-age population growth. Labour supply has been further boosted this year by a significant fall in the working-age inactivity rate, which has fallen by ½ a percentage point since the beginning of 2006 to its lowest since 1992 (chart a). Up until then the inactivity rate had remained broadly flat over recent years, although excluding the strong rise in the number of students there has been a significant downward trend for some time.

In the UK's flexible labour market, the boost to the labour supply experienced in 2006, together with subdued growth in earnings and unit wage costs, bodes well for further growth in employment. These favourable supply-side conditions are expected to support GDP growth in 2007 and beyond, leading to a reversal of the recent rise in unemployment.



**Overview of recent developments**

**A.41** The Government's macroeconomic framework and promotion of flexible and open labour, product and capital markets has continued to deliver an unprecedented period of sustained economic growth with low inflation. UK GDP has now expanded in 57 consecutive quarters, the longest unbroken expansion since quarterly National Accounts began in 1955, and the longest ongoing expansion among all OECD countries – see Box 2.1. So far this decade, the UK has successfully achieved lower inflation and higher growth than most of its major competitors. In the past five years, the UK has enjoyed the second lowest rate of inflation in the G7, after Japan, which has until recently struggled with deflation, and growth rates similar to those in the US and Canada, and significantly stronger than in the euro area.

**GDP growth A.42** UK GDP growth has been stronger than expected at the time of Budget 2006. GDP has expanded by 0.7 per cent in each of the past four quarters. Non-oil GVA, which is the basis for the Treasury's trend growth and output gap estimates, has grown slightly faster than GDP, at above or in line with trend rates, for the past five quarters.

**Table A3: Quarterly GDP and non-oil GVA growth**

	Percentage changes on previous quarter						
	2005				2006		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3
GDP	0.2	0.5	0.5	0.7	0.7	0.7	0.7
Non-oil GVA	0.4	0.5	0.7	0.7	0.7	0.8	0.7

**A.43** Budget 2006 forecast a rebalancing of growth away from consumption towards investment and exports. Revised data suggest that rebalancing was already underway to a greater degree than estimated at the time of Budget 2006. Revisions to past data show that total investment has been growing faster than GDP since the middle of 2005, while private consumption has been growing slightly slower. Outturn data in 2006 have also been stronger than expected. In particular, business investment in the third quarter of 2006 was up 7 per cent on a year earlier. There has been some rebalancing on the output side of the economy too, where ongoing service sector growth has been supported by some recovery in the manufacturing sector. Finally, there has been some rebalancing between domestic and external sources of demand, supported by a strengthening in euro area growth this year.

**Inflation A.44** Consumer price inflation has risen since Budget 2006, from 1.8 per cent in March to 2.4 per cent in October. The rise has been largely due to increases in energy, particularly domestic gas and electricity, and food price inflation. Core inflation, as measured by the CPI excluding food, alcoholic beverages, tobacco and energy, has been broadly stable since the Budget. With energy and food prices driving overall inflation higher, there has been a significant narrowing in the gap between goods and services price inflation. Goods prices excluding energy and food have continued to fall at annual rates of between 1 and 2 per cent.

**A.45** The majority of the recent increase in CPI inflation is not accounted for by domestically-generated inflationary pressures, which have remained subdued, in particular average earnings growth. Import prices fell consistently between 2001 and 2004, but since 2005 have risen, primarily due to high oil prices. In turn, higher import prices pushed producer input price inflation to 18 per cent by the end of 2005. The impact on output price inflation was muted as producers absorbed most of the increase in margins. Producer output price inflation averaged  $3\frac{1}{4}$  per cent in the first half of 2006, and slowed to  $2\frac{1}{2}$  per cent in the third quarter.

**Monetary and fiscal policy A.46** Against a backdrop of above-trend UK GDP growth, the Monetary Policy Committee (MPC) of the Bank of England pre-emptively raised interest rates on five occasions between November 2003 and August 2004. As GDP growth slowed to below trend rates in 2005, the interest rate was cut by 25 basis points in August 2005. This year, as growth has strengthened and CPI inflation has moved above target, the MPC has acted by raising the Bank rate by 25 basis points in both August and November. Fiscal policy has been moderately tightened since 2004-05.

## Assessment of the output gap

**A.47** Since Budget 2006, estimates of growth in non-oil GVA have been revised up by around a  $\frac{1}{4}$  percentage point in each of 2003, 2004 and 2005. Although it now appears that the economy may have temporarily moved slightly above trend in 2004, this is not assessed to be an end-cycle point because output did not move decisively through trend and quickly moved back below trend.<sup>8</sup> The revised profile through 2005 shows growth rising to its trend rate by the third quarter, in contrast to the below-trend rates reported at Budget time. That momentum has been carried into 2006, with non-oil GVA growth slightly above trend in each of the first three quarters of the year. Revisions to past data and stronger than expected growth in 2006, together with the Treasury's trend output assumptions, imply a smaller negative output gap of around  $-\frac{1}{4}$  per cent at present, narrower than the  $-1\frac{1}{4}$  per cent implied at Budget 2006.

### Evidence from cyclical indicators

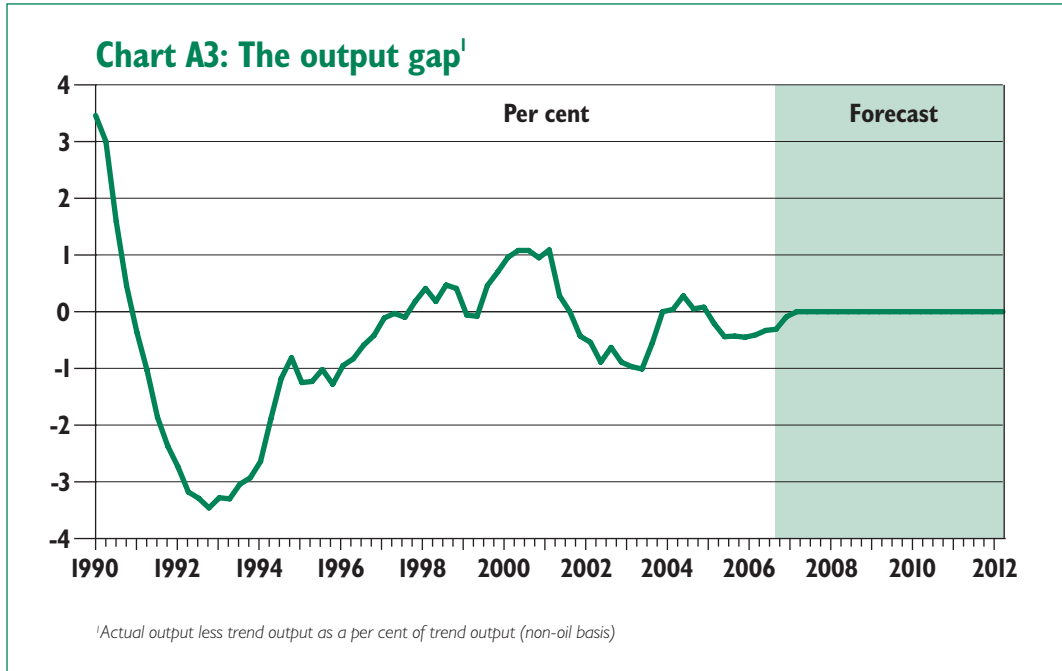
**A.48** In assessing the cyclical position of the economy, the Treasury considers a range of economic indicators, including private sector business surveys, labour market indicators and price data. At the time of Budget 2006, the result of this assessment was to highlight tensions between the output gap estimate implied by the trend growth arithmetic and the evidence from the cyclical indicators. So there was considerable uncertainty about the extent to which the economy had been operating below trend over the recent past. Following National Accounts revisions and latest outturns since Budget 2006, there is now closer coherence between the current output gap estimate and the latest evidence from the cyclical indicators. This increases confidence in the current assessment although there are still considerable uncertainties, mainly associated with labour supply and the possibility that there could be more slack than currently estimated.

**A.49** Private sector business surveys indicate that capacity utilisation in the services sector has risen towards levels consistent with on-trend output, while utilisation in the manufacturing sector has moved marginally above such levels. Given the service sector's greater contribution to total output, this evidence is consistent with the economy being below, but close to, trend.

**A.50** Despite robust employment growth, recent labour market developments and survey indicators suggest some ongoing slack in the economy. These indicators also point to a differential impact of growth in the labour force on the availability of specific types of labour. In both the services and manufacturing sectors, employers have been reporting tighter conditions in the hiring of professional, managerial and clerical labour, compared with semi- and unskilled workers. In line with ongoing labour market slack, average earnings growth has remained subdued, with the whole economy rate excluding bonuses consistently below 4 per cent since summer 2005, and recently falling to just  $3\frac{1}{2}$  per cent in the third quarter of 2006.

<sup>8</sup> This is wholly consistent with the approach set out in *Evidence on the UK economic cycle*, HM Treasury, July 2005.

**A.51** Domestically-generated pressures arising from the cyclical position of the economy have not driven the rise of CPI inflation above target since Budget 2006. Rather, the hot summer pushed food prices higher; energy prices have risen due to high oil prices and, more recently, the lagged effects of high wholesale gas prices; and, import price developments have contributed to a slowing in the rate of deflation in durable goods. Indicators of domestically-generated inflation, most notably average earnings growth and services prices, have not picked up, consistent with the economy close to, but remaining below, trend.



## GDP and inflation forecasts

**Table A4: Summary of forecast<sup>1</sup>**

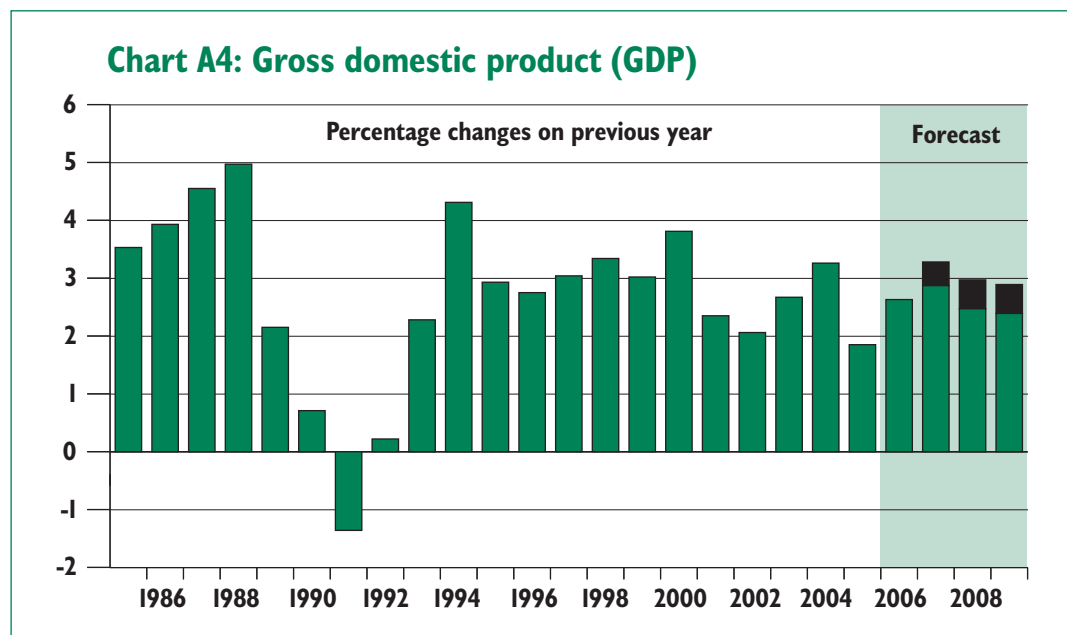
	2005	Forecast			
		2006	2007	2008	2009
GDP growth (per cent)	1 <sup>3</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>4</sub> to 3 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>2</sub> to 3	2 <sup>1</sup> / <sub>2</sub> to 3
CPI inflation (per cent, Q4)	2 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>2</sub>	2	2	2

<sup>1</sup> See footnote to Table A10 for explanation of forecast ranges.

### GDP and the composition of demand

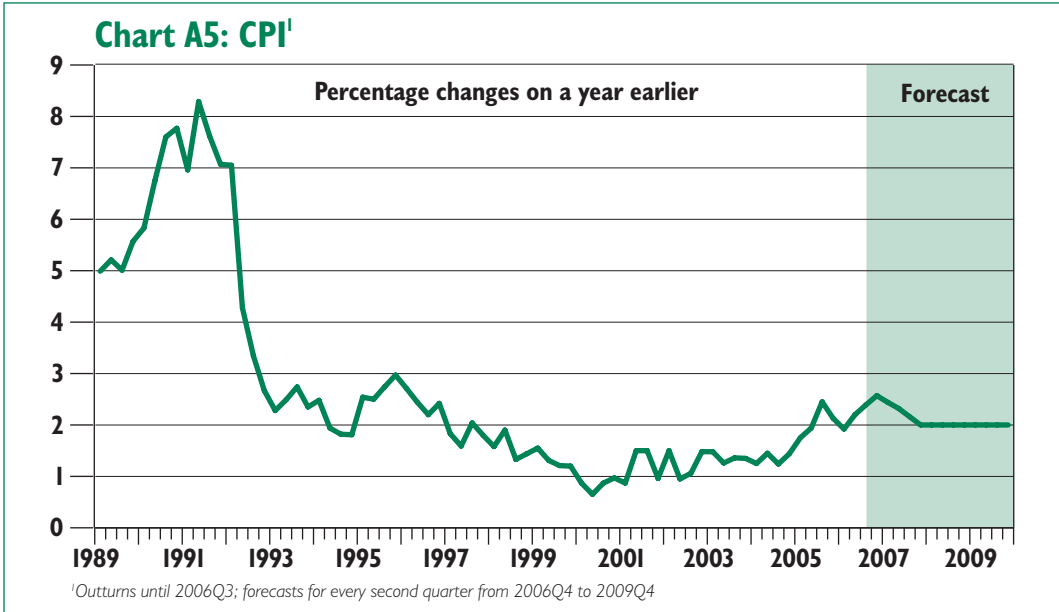
**A.52** With growth in recent years having been stronger and more balanced than was estimated at the time of Budget 2006, and that pattern having continued in 2006, the Pre-Budget Report economic forecast is for growth to continue at close-to-trend rates throughout the forecast horizon. The output gap is currently estimated to be around -<sup>1</sup>/<sub>4</sub> per cent and is expected to close early in 2007.

**A.53** Growth in 2006 is expected to be  $2\frac{3}{4}$  per cent, above the Budget 2006 forecast range. Growth in 2007 as a whole is expected to reach  $2\frac{3}{4}$  to  $3\frac{1}{4}$  per cent, in line with the Budget forecast, reflecting above-trend growth in the second half of 2006 and early 2007. The recent momentum of business investment in particular is expected to carry through into 2007, and private sector business surveys point to strong output growth in the near term. Favourable supply-side conditions, with subdued growth in earnings and unit wage costs, should also support GDP growth next year. With the output gap closing early in 2007, and in the absence of clear evidence that momentum in the economy will carry output above trend during 2007, the Pre-Budget Report forecast is for growth to be close to trend in the second half of 2007 and to remain at  $2\frac{1}{2}$  to 3 per cent in 2008 and 2009. The forecast shows continued rebalancing of growth, as discussed from paragraph A.56 onwards.



**Inflation A.54** The recent rise in CPI inflation has not been driven by domestic cyclical factors, but by energy and food prices. The impact of higher energy prices, particularly domestic utility tariffs discussed in Box A6, and food prices are expected to unwind during 2007. Import price inflation is expected to slow slightly in 2007 driven by oil prices, which are expected to remain below the levels experienced in late summer 2006. Excluding oil, strong world growth is expected to keep import price inflation positive at close to recent rates. Producer output price inflation is expected to slow in 2007 but, with input price inflation falling more quickly, producers' margins are expected to recover.

**A.55** Against this background, CPI inflation is expected to remain above target into the first half of 2007, before quickly returning to target, with monetary policy keeping inflation expectations firmly anchored. The lack of evidence of any second-round effects on other prices supports the view that the recent rise in inflation will be temporary. It is notable that producers of energy-intensive manufactured goods have passed very little of the rise in input prices on to customers, absorbing the impact in margins. Similarly, average earnings growth has remained subdued. The absence of second-round effects reflects the credibility of the Government's monetary policy framework in successfully anchoring inflation expectations.



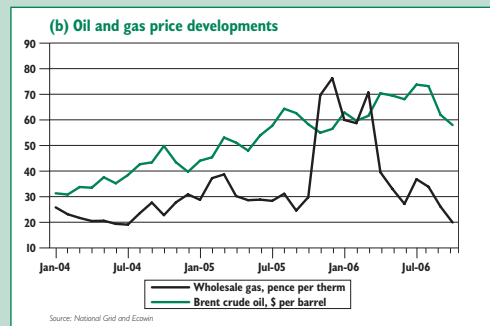
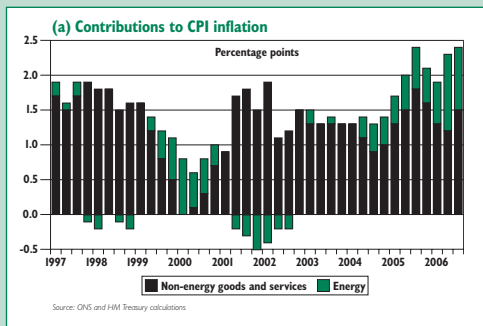
**Box A6: Energy prices and UK inflation**

Increases in oil and energy prices have been the key driver of the recent increase in inflation. Excluding the impact of energy prices, annual CPI inflation has remained stable below 2 per cent (chart a). The price of crude oil reached record highs over the summer and wholesale gas prices increased sharply during the winter of 2005/2006 (chart b). Respectively, these developments fed through swiftly to a substantial rise in petrol prices and with a lag to domestic utility prices.

The tight demand-supply balance in the wholesale gas market that pushed prices higher was caused by: expectations of a cold winter; high US demand for liquefied natural gas in the aftermath of Hurricane Katrina; lower than expected North Sea gas production; the closure of the UK's largest gas storage facility due to a technical failure; and, low flows of gas through the interconnector from Europe.

An expected increase of at least 30 per cent in the UK's gas import capacity this year should ease supply constraints. A large new pipeline from Norway opened in October; steps to increase supplies through the interconnector have already been made; a new pipeline from the Netherlands is due to be fully operational in December; and, storage capacity and levels have been restored. As a result, wholesale gas prices have fallen in recent months. While some weather-related uncertainty remains over prospects for gas prices this winter, recent upward pressure on utility prices is expected to abate. For crude oil prices, the average of independent forecasts for 2007 is currently for Brent to average \$60.3 per barrel, almost 10 per cent below 2006 levels.

Given the expected developments in these key determinants of consumer energy prices, their contribution to CPI inflation is expected to fall during 2007.



## UK DEMAND AND OUTPUT IN DETAIL

**A.56** The rebalancing of growth that has taken place since the beginning of 2005 is expected to continue, and supply-side conditions are expected to remain supportive of growth. Private consumption is forecast to grow at slightly slower rates than the overall economy, reflecting the lagged effect of higher than expected inflation on real incomes, the effect of recent interest rate increases and a higher propensity to save. Business investment is expected to carry some of its current momentum into 2007 as corporate profitability is expected to remain strong and the cost of capital low by historical standards. Net trade made a neutral contribution to GDP growth in 2005 and is expected to make small negative contribution in 2006. With solid underlying export growth and somewhat slower import growth, the impact of net trade on GDP growth is expected to be broadly neutral from 2007. In line with developments in 2005 and 2006, GDP growth is forecast to be significantly more balanced than in earlier years of this decade, with a weaker contribution from consumption and stronger contributions from business investment and net trade.

**Table A5: Contributions to GDP growth<sup>1,2</sup>**

	Percentage points, unless otherwise stated					
	Average 2000 to 2004	2005	Forecast			
			2006	2007	2008	2009
<b>GDP growth, per cent</b>	<b>2<sup>3</sup>/<sub>4</sub></b>	<b>1<sup>3</sup>/<sub>4</sub></b>	<b>2<sup>3</sup>/<sub>4</sub></b>	<b>2<sup>3</sup>/<sub>4</sub> to 3<sup>1</sup>/<sub>4</sub></b>	<b>2<sup>1</sup>/<sub>2</sub> to 3</b>	<b>2<sup>1</sup>/<sub>2</sub> to 3</b>
<b>Main contributions</b>						
Private consumption	2 <sup>1</sup> / <sub>4</sub>	1	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>
Business investment	<sup>1</sup> / <sub>4</sub>	<sup>1</sup> / <sub>4</sub>	<sup>1</sup> / <sub>2</sub>	<sup>1</sup> / <sub>2</sub>	<sup>1</sup> / <sub>2</sub>	<sup>1</sup> / <sub>2</sub>
Government <sup>3</sup>	<sup>3</sup> / <sub>4</sub>	<sup>1</sup> / <sub>2</sub>	<sup>1</sup> / <sub>2</sub>	<sup>3</sup> / <sub>4</sub>	<sup>1</sup> / <sub>2</sub>	<sup>1</sup> / <sub>2</sub>
Change in inventories	0	0	0	0	0	0
Net trade	- <sup>1</sup> / <sub>2</sub>	0	- <sup>1</sup> / <sub>4</sub>	0	0	0

<sup>1</sup> Components may not sum to total due to rounding and omission of private residential investment, transfer costs of land and existing buildings and the statistical discrepancy.

<sup>2</sup> Based on central case. For the purpose of projecting the public finances, forecasts are based on the bottom of the GDP forecast range.

<sup>3</sup> The sum of government consumption and government investment.

## Households and consumption<sup>9</sup>

**A.57** Household consumption is the largest expenditure component of UK GDP. After two decades of almost continuous increase, the share of nominal consumption expenditure in GDP drifted downwards between 2001 and 2004. Volume growth has been relatively stronger reflecting falling import prices and the effects of strong price competition in retail and other consumer markets. The ratio of nominal consumer spending to GDP stabilised from early 2005 at around 64<sup>1</sup>/<sub>2</sub> per cent before declining again in the third quarter of 2006.

<sup>9</sup> In the National Accounts, private consumption is comprised of final consumption expenditure by households and non-profit institutions serving households (NPISH). Throughout this section, the terms 'household consumption' and 'private consumption' always refer to total final consumption expenditure by households and NPISH.

**Table A6: Household sector<sup>1</sup> expenditure and income**

	Percentage changes on previous year, unless otherwise stated				
	2005	2006	Forecast		
			2007	2008	2009
Household consumption <sup>2</sup>	1½	2	2¼ to 2¾	2¼ to 2¾	2¼ to 2¾
Real household disposable income	2¼	2	2¼ to 2½	2¼ to 2¾	2 to 2½
Saving ratio <sup>3</sup> (level, per cent)	5	5½	5¾	5¾	5¾

<sup>1</sup> Including non-profit institutions serving households.

<sup>2</sup> Chained volume measures.

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

**Disposable income** **A.58** Real household disposable income growth slowed to 1¾ per cent in 2004, but picked up to 2¼ per cent in 2005 and continued at that rate of growth in the first half of 2006. Subdued real income growth reflects a number of factors, initially the effects of the 125 basis point increase in interest rates between November 2003 and August 2004 and, more recently, the impact of high energy and rising food prices on real purchasing power. Relatively steady growth in employment and average earnings have led to aggregate wages and salaries at the whole economy level registering stable growth rates over the past two years. Real disposable income growth is expected to be broadly stable at around 2 to 2½ per cent over the forecast period.

**Household spending** **A.59** Real private consumption growth slowed to 1½ per cent in 2005 from 3¾ per cent in 2004. In both years, growth has been revised down by a ¼ percentage point since Budget 2006. The quarterly profile of latest ONS data for consumption growth now shows a fairly smooth slowdown from the beginning of 2004 to the second quarter of 2005 followed by a similarly smooth pick-up to the second quarter of 2006. Growth in the third quarter slowed, perhaps reflecting some of the temporary factors discussed in the next paragraph. Growth in 2006 is expected to reach 2 per cent, consistent with steady growth in disposable income.

**A.60** Over the past year, retail sales data have been difficult to interpret, with particularly strong growth rates in the fourth quarter of 2005 and second quarter of 2006 followed by much weaker growth rates in the first and third quarters of 2006. Temporary factors including the timing of Easter, hot weather in the early summer and the football World Cup may all have affected the short-term time profile of consumers' spending. They are, though, unlikely to have affected trends in the overall volume of spending. Six-month on previous six months growth rates have picked up steadily since the middle of 2005. After declining through 2005, consumer confidence has stabilised and currently stands at a level close to its long-run average.

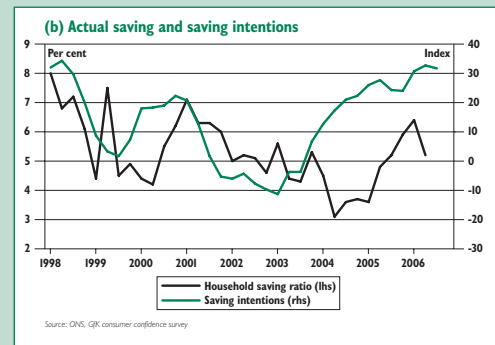
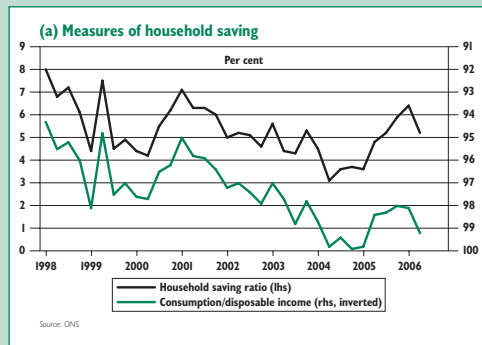
**A.61** Between 2001 and 2004, the household consumption deflator increased more slowly than the overall GDP deflator, and so the relative price of household consumption fell. Since the beginning of 2005, the relative price has risen slightly, driven by rising prices of non-durable goods, mainly energy, and services, in particular housing. Durable and semi-durable goods prices have continued their recent downward trend reflecting the ongoing boost to household purchasing power from strong domestic and global competition in these markets.

**Saving ratio** **A.62** With growth in consumption lagging changes in income, there was a significant impact on the household saving ratio, which fell from 5 per cent in 2003 to 3¾ per cent in 2004, before rising to 5 per cent again in 2005. The saving ratio is forecast to rise a little further, largely accounted for by households' net equity in pension funds. As explained in Box A7, the possibility of a larger increase represents a downside risk to the consumption forecast.

**Box A7: Developments in household saving**

Over the two years to the beginning of 2006, the household saving ratio doubled to just under 6½ per cent, before falling in the second quarter. The increase has been driven first by a small drop in the share of disposable income used for consumption expenditure and, more recently, by an increase in households' net equity in pension funds. The contribution of this pension-related saving to the overall household saving ratio has risen to its highest for 16 years, reflecting the increase in employers' contributions to funded pension schemes (chart a).

Despite a rising saving ratio, survey evidence suggests that households' desire to save has risen proportionately more (chart b). To the extent that households view pension-related saving, which has been predominantly driven by employers' contributions, differently to saving from current disposable income, this may explain some of the discrepancy between survey responses and the measured saving ratio.



**House prices A.63** At Budget 2006, recent evidence was assessed to be consistent with a smooth realignment in the housing market from annual inflation rates in excess of 20 per cent that prevailed until the summer of 2003, to rates of around 4 to 5 per cent. So far in 2006, house price inflation has strengthened to more than 8 per cent. Some historically reliable short-term indicators<sup>10</sup> suggest a small further increase through the end of 2006. During this period, 12-month growth rates are likely to be boosted by the effects of relatively low monthly rates of increase a year earlier.

**A.64** There is some evidence that the recent strength of house price inflation may be linked to supportive financing conditions related to developments in the bond market and the growth of fixed-rate mortgages. In line with global bond market developments, between March and July 2005 the 2-year bond yield in the UK fell by 80 basis points while the Bank rate remained stable at 4¾ per cent. As a result, the price of fixed-rate mortgages, which are priced using bond yields, fell relative to standard variable rate mortgages, which are priced using the Bank rate. In response, the share of fixed-rate mortgages in new borrowing rose sharply, indicative of the flexibility of the UK's financial services industry. The impact of these developments was to provide a stimulus to the housing market during 2005 that would not have occurred if all mortgages were priced off the Bank rate. That stimulus is expected to have been temporary and, looking further ahead, with tighter financing conditions house price inflation is likely to moderate again to rates in line with income growth.

**A.65** Investment in dwellings, around 90 per cent of which is carried out by households, is an important component of whole economy investment, accounting for just under a quarter of the total. Having expanded by 2¼ per cent in 2005, growth picked up strongly in the first half of 2006 to 7¾ per cent on a year earlier. On the back of this momentum, growth is forecast to remain strong in 2007 before moderating in line with housing market fundamentals.

<sup>10</sup> For example, the ratio of property sales to the stock of properties reported by chartered surveyors in the RICS *Housing Market Survey*, which shows a strong positive correlation with house price inflation.

## Companies and investment

**A.66** The role of corporate sector investment in the economy extends far beyond the 10 per cent of GDP accounted for by business investment. Investment also affects future growth through the accumulation of physical capital available to each worker with which to produce goods and services. Rising capital intensity is an important driver of labour productivity growth. The contribution of investment to productivity and long-run economic growth is discussed in detail in Chapter 3 and *Productivity in the UK 6: Progress and new evidence*.<sup>11</sup>

**Company finances A.67** Companies can finance investment either internally, using the cashflow generated by their operations, or externally, through bank lending or by issuing equity or debt to investors. In recent years, both sources have created a supportive environment for business investment.

**A.68** In terms of profitability, the net rate of return on assets in the non-financial corporate sector rose to a record high of  $14\frac{3}{4}$  per cent in the second quarter of 2006. That was driven by record highs in the service sector and near-record highs for companies operating in the North Sea oil and gas sector.

**A.69** Turning to external financing conditions, the cost of capital remains low by historical standards. A combination of low inflation, domestic macroeconomic stability and strong global liquidity has helped to keep government bond yields low and the spread charged to corporate borrowers small. The FTSE 100 index of leading shares has risen from around 6,000 at the time of Budget 2006 to an average of 6,168 in November. The relatively low cost of capital has encouraged companies to take on more debt in recent years. This has led to an increase in the ratio of corporate debt liabilities to gross operating surpluses to historically high levels. Taken in isolation, such an increase could be seen as a potential drag on investment, but the ratio of interest payments to gross operating surpluses, income gearing, remains well below the levels reached in the early 1990s. Companies have been accumulating financial assets and liabilities at a similar rate, which has left the ratio of total assets to liabilities broadly stable. Furthermore, the build-up of financial assets has largely been in the form of deposits, so that the ratio of liquid assets to total liabilities, a common measure of balance sheet health, has improved significantly in recent years.

**Business investment A.70** With internal and external financing conditions broadly supportive, the relatively subdued growth of business investment in recent years has been somewhat surprising. Stronger business investment was identified as a key upside risk to the Budget 2006 economic forecast. Revisions to past data and relatively strong outturns so far in 2006 have partly crystallised that risk. Compared with the data at Budget time, annual business investment growth in 2004 has been revised down from  $3\frac{1}{4}$  to  $2\frac{1}{4}$  per cent while growth in 2005 has been revised up from  $1\frac{1}{2}$  to  $3\frac{1}{4}$  per cent. Investment in the manufacturing sector was particularly strong in 2005, growing by  $12\frac{1}{2}$  per cent. Business investment gathered momentum in the first three quarters of 2006, growing by  $5\frac{1}{4}$  per cent on a year earlier, significantly above the Budget forecast range for the year as a whole of 1 to  $1\frac{1}{2}$  per cent. In the year to the third quarter of 2006, business investment grew by 7 per cent.

<sup>11</sup> *Productivity in the UK 6: Progress and new evidence*, HM Treasury, March 2006.

**A.7I** The stronger path of business investment growth since the beginning of 2005 has meant that in volume terms its ratio to GDP has risen to its highest since 2002. As a result of the ongoing fall in the price of investment goods relative to those in the whole economy, the share of business investment in nominal GDP has remained stable at around 9½ per cent over that period.

#### **Box A8: Intangibles and the changing nature of investment**

As developed economies shift towards knowledge-based activities and higher value-added goods and services, the nature of investment may be changing. Firms are spending increasingly on research and development, branding, training and organisational change. At present, these are classified as current expenditure in the National Accounts but, given their intended purpose of raising future capacity and efficiency, might reasonably be considered as investment.

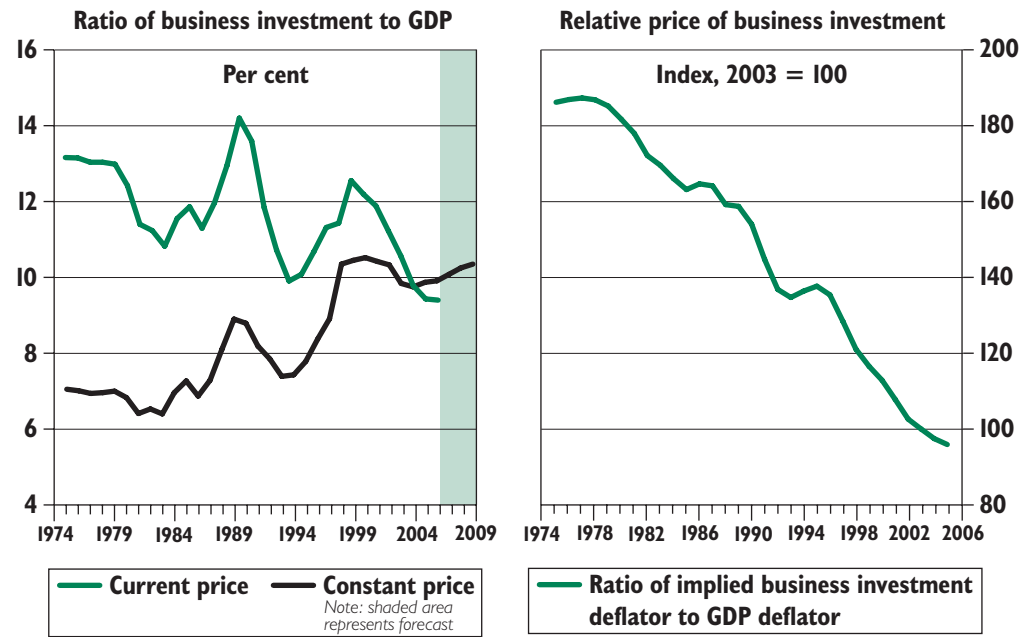
ONS estimates of UK business investment are based on the internationally-agreed System of National Accounts (SNA) definitions that are strongly focused on investment in tangible assets. Software investment is included, but presents significant measurement challenges. The ONS has estimated that improvements to the measurement of own-account, in-house software investment could raise measured total UK software investment in 2003 to around £21bn from the current estimate of £8bn. These estimates are currently experimental and will not be incorporated into the National Accounts until the summer of 2007. Even then, measured business investment will cover only a limited range of intangibles spending. Looking further ahead, the ongoing review of the SNA appears likely to conclude that research and development should be classified as investment.

Recently published academic work has investigated business investment in intangibles, including research and development, branding, training and organisational change, in the UK and US.<sup>a</sup> For the UK, total investment in intangibles was estimated to be £116bn in 2004, equivalent to 10 per cent of GDP. This compares with officially measured business investment in 2004 of £112bn, which includes around £15bn of intangible investment. While uncertain, these estimates suggest that a broader definition of intangible capital could roughly double UK business investment. Estimates for the US yielded similar results, with business sector investment in intangibles equivalent to around 11 per cent of GDP on average between 1998 and 2000.

Strong growth in the creative industries is indicative of the importance of intangibles in the UK economy. These industries, which among others include advertising, architecture, film, software and computer games, are some of the main producers of intangibles. Collectively they grew by an average of 5 per cent a year between 1997 and 2004, compared with 3 per cent for the whole economy. In finance and business services, the largest and fastest growing sector of the UK economy, investment in intangibles, particularly software, product development, branding and organisational change, is likely to be disproportionately important.

<sup>a</sup> Giorgio Marrano, M. and Haskel, J. (2006), *How much does the UK invest in intangible assets?*, Queen Mary, Department of Economics, working paper 578; and, Corrado, C., Hulten, C. and Sichel, D. (2006), *Intangible capital and economic growth*, NBER working paper 11948. Both papers note that due to difficult measurement issues their estimates must be considered exploratory, but that they do highlight the importance of intangible investment.

**Chart A6: Business investment<sup>1</sup>**



<sup>1</sup> Business investment includes investment by public corporations and investment under the Private Finance Initiative

**A.72** The outlook for business investment is positive. Profitability is expected to remain strong and the cost of capital to remain low by historical standards. Recent private sector business surveys, particularly those of the service sector, point to further investment growth. Indeed, though the Pre-Budget Report business investment forecast for 2006 has been revised up substantially compared with Budget 2006, there are still significant upside risks in 2007 and beyond.

**Table A7: Gross fixed capital formation**

	Percentage changes on previous year				
	2005	Forecast			
		2006	2007	2008	2009
Whole economy <sup>1</sup>	2 <sup>3</sup> / <sub>4</sub>	6	5 <sup>1</sup> / <sub>4</sub> to 5 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub> to 3 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub> to 3 <sup>3</sup> / <sub>4</sub>
of which:					
Business <sup>2,3</sup>	3 <sup>1</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>4</sub> to 5 <sup>1</sup> / <sub>2</sub>	4 to 4 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub> to 4 <sup>1</sup> / <sub>2</sub>
Private dwellings <sup>3</sup>	2 <sup>1</sup> / <sub>4</sub>	8	4 <sup>1</sup> / <sub>2</sub> to 5	2 <sup>3</sup> / <sub>4</sub> to 3 <sup>1</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>4</sub> to 3 <sup>1</sup> / <sub>4</sub>
General government <sup>3</sup>	-1 <sup>1</sup> / <sub>4</sub>	6 <sup>3</sup> / <sub>4</sub>	13 <sup>1</sup> / <sub>4</sub>	2	2

<sup>1</sup> Includes costs associated with the transfer of ownership of land and existing buildings.

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

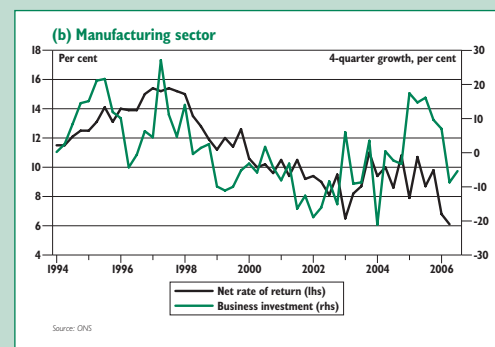
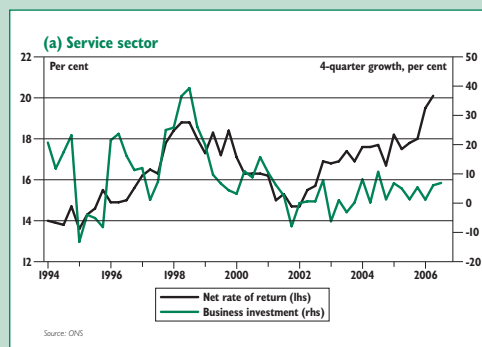
<sup>3</sup> Excludes purchases less sales of land and existing buildings.

**Box A9: Profitability and business investment**

In the past, corporate profitability, measured by the net rate of return on assets, has been a reasonably reliable indicator of business investment growth, despite the rate of return being a backward-looking measure. In more recent years, at least until lately, the significant increase in rates of return to record high levels has been accompanied by only a relatively modest pick-up in business investment growth. Explaining this discrepancy casts light on the balance of risks surrounding the business investment forecast.

Part of the explanation is that average rates of return for the whole corporate sector have been pushed higher because of oil-related profits at companies operating on the UK Continental Shelf (UKCS), where investment growth did not turn positive until 2005. However, non-UKCS rates of return have also risen to levels that, based on historical relationships, would suggest stronger business investment growth.

Decomposing the data a step further shows that it is in the service sector that investment growth does not appear to have responded to rising profitability (chart a). Investment growth in the manufacturing sector has perhaps been a little stronger than the rate consistent with prevailing rates of return (chart b). Business surveys broadly support the suggestion that there is scope for service sector business investment, which accounts for around three-quarters of the total, to strengthen further. Nevertheless, as discussed in Box A8, large parts of spending that service sector businesses might regard as investment are not currently scored in official investment measures.



**Government**

**A.73** Nominal government consumption has stabilised as a share of GDP in 2006 at around 22¼ per cent. The latest National Accounts data show that general government investment fell 1¼ per cent in 2005, compared with growth of 18½ per cent reported at the time of Budget 2006, due largely to a reclassification of investment between sectors explained in Annex B.

**Trade and the balance of payments**

**A.74** Annual growth in recorded exports and imports of goods and services has become increasingly distorted by activity related to missing trader intra-community fraud (MTIC), which has significantly inflated measured goods trade. The ONS constructs the UK's balance of payments in accordance with the European System of Accounts, which requires that trade related to fraudulent activity be included in export and import statistics.

**A.75** MTIC-related activity should not, in principle, affect official estimates of net trade because the impact on export and import volumes should be equal. However, estimates of MTIC-related activity are subject to inevitable measurement difficulties, which in practice may carry over to estimates of net trade. The ONS has advised that due to the size of the changes in recent MTIC-related activity, “comparisons of [trade] volume and prices ... should be treated with a great deal of caution.”<sup>12</sup> The ONS also publishes estimates of trade volumes excluding MTIC-related activity, which more accurately reflect underlying trends in goods trade.

**A.76** The latest ONS published estimates of MTIC-related activity suggest it fell sharply in the third quarter of 2006, by around two-thirds compared with the level experienced in the first half of the year. This has a significant effect on forecast rates of growth in 2006 and 2007 because the forecast abstracts from MTIC effects by assuming that beyond the latest quarter of data export and import volumes grow in line with underlying trade, excluding 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.

**Exports of goods and services**

**A.77** The overall volume of goods and services exports grew by 7 per cent in 2005, up from 4<sup>3</sup>/<sub>4</sub> per cent in 2004. Growth picked up further to over 14 per cent in the first three quarters of 2006, significantly boosted by estimates of MTIC-related activity. Excluding MTIC, export growth slowed to 4<sup>1</sup>/<sub>4</sub> per cent in 2005 from 5<sup>3</sup>/<sub>4</sub> per cent in 2004, mainly due to the slowdown in services export volume growth from 11<sup>1</sup>/<sub>4</sub> per cent to 3<sup>1</sup>/<sub>4</sub> per cent, driven by lower exports of insurance services. Export growth excluding MTIC-related activity rose to 6<sup>1</sup>/<sub>4</sub> per cent on a year earlier in the first three quarters of 2006, in part reflecting the positive impact on the UK economy of stronger growth in the euro area. The value of goods exports excluding MTIC to the EU was up 8 per cent on a year earlier in the first half of the year, and 10<sup>3</sup>/<sub>4</sub> per cent in the third quarter.<sup>13</sup>

**A.78** The volume of oil exports peaked in 2001 at 82 million tonnes and has fallen in each year since to 50<sup>1</sup>/<sub>2</sub> million tonnes in 2005 when, for the first time since 1980, the UK imported more crude oil than was exported. High oil prices have meant that the share of oil in the value of total exports actually increased from less than 8 per cent in 2001 to 9<sup>1</sup>/<sub>2</sub> per cent in 2005. Looking ahead, the volume of oil exports is expected to continue to decline throughout the forecast period reflecting the trend decline in North Sea production discussed in paragraph A.93.

**A.79** The underlying momentum in export growth, excluding MTIC-related activity, is expected to continue, with a forecast increase of around 6 per cent in 2006, slowing slightly to around 5 per cent in 2007. The effect of high estimated MTIC-related activity in the first half of 2006, the sharp fall in the third quarter, and the forecasting assumption thereafter means that overall export volumes are forecast to grow by almost 12 per cent in 2006, falling to less than 1 per cent in 2007.

**Imports of goods and services**

**A.80** Growth in the volume of imports of goods and services excluding MTIC-related activity slowed to 4 per cent in 2005 from 7<sup>1</sup>/<sub>2</sub> per cent in 2004. Growth in the year to the third quarter of 2006 picked up to 6<sup>3</sup>/<sub>4</sub> per cent, as underlying growth in goods imports rose to 7<sup>3</sup>/<sub>4</sub> per cent from 4 per cent in 2005. Over the same period, annual growth in services imports slowed from 3<sup>3</sup>/<sub>4</sub> per cent to 3 per cent.

<sup>12</sup> First release: UK trade, ONS, November 2006.

<sup>13</sup> The ONS does not publish estimates of the volume of exports excluding MTIC-related activity by region.

**A.81** In line with moderate rates of private consumption growth, imports are expected to grow slightly slower than exports throughout the forecast period. However, since imports of goods and services are roughly one-eighth larger than exports, a lower percentage growth rate is equivalent to the same increase in absolute terms. As a result, the contribution of net trade to GDP growth is expected to be broadly neutral.

**Table A8: Trade in goods and services**

	Percentage changes on previous year					£ billion Goods and services balance
	Volumes <sup>1</sup>		Prices <sup>2</sup>		Terms of trade <sup>3</sup>	
	Exports	Imports	Exports	Imports		
2005	4 $\frac{1}{4}$ (7)	4 (6 $\frac{1}{2}$ )	1 $\frac{1}{4}$	3 $\frac{3}{4}$	-2 $\frac{1}{2}$	-45 $\frac{1}{4}$
<i>Forecast</i>						
2006	6 (11 $\frac{1}{2}$ )	6 $\frac{1}{4}$ (11)	2	3	-1	-53 $\frac{1}{2}$
2007	5 to 5 $\frac{1}{2}$ ( $\frac{1}{2}$ to 1)	4 $\frac{1}{4}$ to 4 $\frac{3}{4}$ ( $\frac{1}{4}$ to $\frac{1}{2}$ )	2 $\frac{1}{2}$	2 $\frac{3}{4}$	- $\frac{1}{4}$	-54 $\frac{3}{4}$
2008	4 $\frac{3}{4}$ to 5 $\frac{1}{4}$	4 $\frac{1}{4}$ to 4 $\frac{3}{4}$	2 $\frac{3}{4}$	2 $\frac{3}{4}$	0	-57
2009	4 $\frac{1}{2}$ to 5	4 to 4 $\frac{1}{2}$	2 $\frac{3}{4}$	2 $\frac{3}{4}$	0	-59 $\frac{1}{4}$

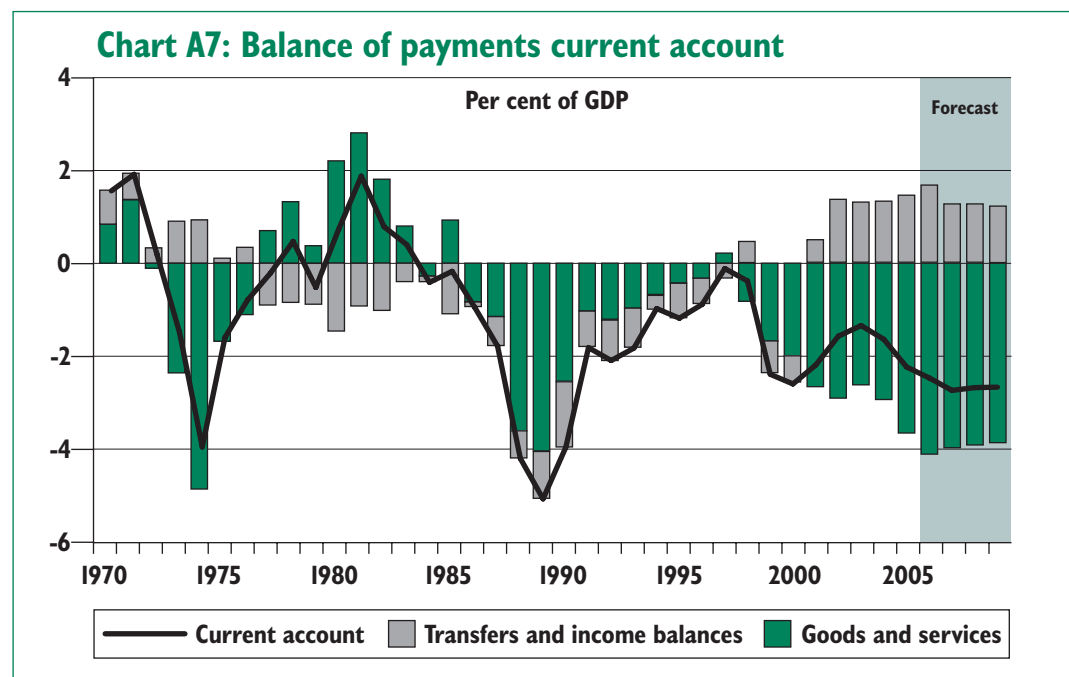
<sup>1</sup> Excluding MTIC-related activity. Figures in parentheses include MTIC-related activity. In 2008 and 2009, export and import growth including and excluding MTIC are the same, reflecting forecast assumptions.

<sup>2</sup> Average value indices.

<sup>3</sup> Ratio of export to import prices.

**Current account A.82** The UK current account deficit widened from 1 $\frac{3}{4}$  per cent of GDP in 2004 to 2 $\frac{1}{4}$  per cent in 2005, as forecast in Budget 2006. The deficit in 2005 was exaggerated by the one-off impact on the insurance sector of the US hurricane season, which caused it to increase from 1 per cent of GDP in the first half of the year to 3 $\frac{1}{4}$  per cent in the second half. It returned to 2 $\frac{1}{2}$  per cent of GDP in the first half of 2006. The deficit on trade in goods and services expanded to 3 $\frac{3}{4}$  per cent of GDP in 2005 from 3 per cent in 2004. Around a third of the increase was explained by trade in oil, which recorded a deficit.

**A.83** Looking ahead, the non-oil trade deficit is expected to narrow slightly as a share of GDP throughout the forecast horizon. Due to the reversal of temporary negative factors affecting UK oil production and exports, the overall trade deficit is expected to narrow slightly in 2007 from 4 $\frac{1}{4}$  per cent of GDP in 2006, and to remain broadly stable in 2008 and 2009.



**A.84** Offsetting the trade deficit, the UK's balance of overseas earnings reached a record surplus of  $2\frac{1}{2}$  per cent of GDP in 2005. One factor underpinning the continuing strength of net income flows to the UK is the relatively high rates of return UK investors earn on their overseas foreign direct investment (FDI) compared with those earned by foreign investors on their UK assets, particularly in the financial sector. Another is the UK's strong net asset position in sectors where rates of return have been rising, particularly in oil and gas extraction. The current account deficit is expected to remain broadly stable from 2007 at around  $2\frac{3}{4}$  per cent of GDP.

**FDI A.85** In 2005, the UK attracted a record  $\pounds 87\frac{3}{4}$  billion gross inflow of FDI, the highest ever recorded for a European country, and making the UK the world's largest recipient of inward FDI.<sup>14</sup> A significant proportion of the 2005 inflows can be accounted for by the restructuring of Shell Transport and Trading and Royal Dutch Petroleum into Royal Dutch Shell. FDI inflows continued strongly into 2006, reaching  $\pounds 46\frac{3}{4}$  billion in the first half of the year.

## Service sector output

**A.86** The service sector accounts for a large and increasing share of activity in the UK. As a proportion of GVA, it has risen from 66 per cent to 75 per cent over the past decade. Around half of that increase has been the result of strong growth in three sectors: banking and finance; computer services; and other business services, a sector that includes activities ranging from recruitment agents to fashion design. The share of service sector activity in the UK is also high by international standards: the UK ranks fourth among OECD countries and seventh in the world.<sup>15</sup>

**A.87** The service sector grew by 4 per cent in 2004, 3 per cent in 2005 and  $3\frac{1}{2}$  per cent in the first three quarters of 2006 on a year earlier. Business surveys point to ongoing expansion at similar rates. For example, monthly indicators of business activity and new business in the service sector compiled by the Chartered Institute of Purchasing and Supply are currently above their long-run averages.

**Business services and finance A.88** The business services and finance sector is the largest sector of the UK economy, accounting for around a third of total activity and larger than the manufacturing and distribution sectors combined. On average over the past decade, the sector has accounted for almost half of total growth in the UK economy. As the wider economy slowed in 2005, the finance and business service sector continued to grow strongly: annual growth dipped only slightly to  $4\frac{1}{4}$  per cent from 5 per cent in 2004. It has since picked up again to 5 per cent in the first three quarters of 2006.

**Distribution A.89** Activity in the distribution sector slowed sharply to 1 per cent in 2005 from  $5\frac{1}{4}$  per cent in 2004. Growth recovered during 2006 to reach  $2\frac{1}{4}$  per cent in the year to the third quarter. The slowdown in 2005 was of a similar magnitude in the wholesale, retail and motor trade sub-sectors, but developments have diverged somewhat in 2006. Retail activity has strengthened through the year while growth in the wholesale and motor trade sectors has slowed.

<sup>14</sup> *World Investment Report, 2006*, United Nations Conference on Trade and Development, October 2006, page 82.

<sup>15</sup> This global comparison is based on National Accounts data collected by the United Nations: <http://unstats.un.org/unsd/snaama/Introduction.asp>. To ensure offshore centres, with economies that are dominated by financial sector activity, do not skew the comparison, 53 countries with populations of less than one million were excluded from the sample. The UK ranks 30th among the full set of 207 countries.

**Other services A.90** Activity in the hotel and restaurant sector has followed a similar path to that of the wholesale sector, falling in 2005 before recovering in the first half of 2006 and then slowing more recently. Transport, storage and communications activity followed a different path, with growth picking up to 4 per cent in 2005 from 2½ per cent in 2004. Growth in 2006 has been firm.

## Manufacturing and North Sea output

**Manufacturing A.91** The manufacturing sector currently accounts for around 14 per cent of whole economy GVA. The sector contracted by 1 per cent in 2005 reflecting slower growth of UK export markets and domestic consumption. As both have recovered in 2006, especially goods exports to the EU, manufacturing output has picked up. Between January and September, output increased by 1¾ per cent, though latest private sector business surveys point to some slowdown in the fourth quarter. For the year as a whole, output is expected to grow by 1¼ per cent, slightly above the Budget 2006 forecast. Perhaps reflecting the relative strength of productivity growth and indicators of recruitment difficulty over the past year, average earnings have been rising faster in the manufacturing sector than the service sector.

**North Sea A.92** Total industrial production growth has been lower than growth in the manufacturing sector due to significant declines in oil and gas extraction. Output of the North Sea oil and gas sector fell by almost 8 per cent in the year to the third quarter of 2006, and has fallen 38 per cent since peaking in 2000. The structural decline since 2000 reflects the rundown of reserves in the North Sea and increasing extraction costs for the remaining oil and gas.

**A.93** Temporary factors have acted as an additional drag on output in 2006. For example, routine maintenance that was postponed during 2004 and 2005 in response to high oil prices has taken place this year. The impact has been exacerbated by on-shore infrastructure failures. Looking ahead, a relatively large new field, 'Buzzard', is due to come on stream before the end of 2006, which, alongside a number of smaller start-ups in 2007 and 2008, should temporarily arrest the decline in output. However, barring significant new discoveries, the long-term structural decline of North Sea output is expected to continue. The Treasury is currently projecting an average rate of decline in North Sea output of about 3 per cent a year between 2006 and 2011, reflecting a stronger underlying downward trend for existing fields partly offset in 2007 and 2008 by additional output from the new fields coming on stream. Given the weight of the North Sea oil and gas sector in whole economy output – currently around 1½ per cent – this decline implies on average that whole economy GDP will grow around 0.1 percentage points slower than non-oil GVA, the measure on which the Treasury's trend output growth estimates are based.

## Independent forecasts

**A.94** The average of independent forecasts for GDP growth in 2006 has risen steadily since the beginning of the year, when it stood at 2.1 per cent, to reach 2.6 per cent in November, above the Budget 2006 forecast range and just below the Pre-Budget Report forecast of 2¾ per cent. Upward revisions to expected investment growth have driven the overall change, with investment now expected to grow by 4.7 per cent in 2006. For 2007, the latest independent average for GDP growth stands at 2.4 per cent, below the Pre-Budget Report range of 2¾ to 3¼ per cent. Outside forecasts for 2008 and 2009 currently average 2.5 and 2.6 per cent respectively, at the lower end of the Pre-Budget Report range of 2½ to 3 per cent.

**A.95** The average independent forecast for CPI inflation at the end of 2006 has been revised up since March, from 1.9 to 2.6 per cent. Independent forecasters expect inflation to fall in 2007, in line with the Pre-Budget Report forecast, and to be close to target at the end of 2007.

**A.96** Treasury forecasts for GDP growth since 1997 have, on average, outperformed the independent consensus. Treasury forecasts have also compared well against a sample of forecasters that includes leading international institutions (IMF, OECD, European Commission), research institutes (Oxford Economics, NIESR) and private sector forecasters (Goldman Sachs, HSBC, JP Morgan).<sup>16</sup>

**Table A9: Pre-Budget Report and independent<sup>1</sup> forecasts**

	Percentage changes on a year earlier, unless otherwise stated					
	2006			2007		
	December	Independent		December	Independent	
	PBR	Average	Range	PBR	Average	Range
Gross domestic product	2¾	2.6	2.2 to 2.7	2¾ to 3¼	2.4	-0.1 to 2.9
CPI (Q4)	2½	2.6	2.0 to 2.8	2	2.1	1.3 to 3.1
Current account (£ billion)	-32	-31.4	-36.3 to -25.0	-37½	-32.8	-48.8 to -10.5

<sup>1</sup> 'Forecasts for the UK economy: A comparison of independent forecasts', November 2006.

## Forecast issues and risks

**A.97** Risks to the 2006 Pre-Budget Report economic outlook are broadly balanced, both globally and domestically.

**Global economy A.98** Globally, inflationary pressures and monetary policy adjustment, and the correction in the US housing market, are attracting more attention than at Budget time. Global imbalances remain large, but high oil prices appear to present less of an immediate risk.

**A.99** Growth in the US economy has slowed, and the potential global impact of further moderation presents a key downside risk. By contrast, the euro area economy has performed well and potentially presents an upside risk in 2007, given the cautious view taken on the impact of measures to tighten fiscal and monetary policy. The strength of growth in Asia, and China in particular, surprised forecasters once more in 2006, and could do so again.

**A.100** The rising inflationary pressures noted at the time of Budget 2006 have fed through to measured inflation. Central banks across the OECD have responded by raising interest rates, the impact of which presents a risk to the short-term growth outlook. While monetary policy frameworks retain a high degree of credibility and monetary policy is tighter than it has been for five years, if higher inflation were to feed through to higher inflation expectations there would be a risk that monetary authorities could have to raise interest rates further or faster than markets currently expect.

<sup>16</sup> Treasury analysis based on various issues of the *Comparison of independent forecasts*.

**A.101** Other risks remain broadly similar to those at Budget time, including:

- risks to world trade if the multilateral approach to free trade is overtaken by bilateral and regional trade agreements or increasingly protectionist trade policies;
- actual or perceived risks to the supply of oil or gas that could result in another sharp rise in energy prices, though the recent increase in spare capacity has eased market pressures slightly; and
- the persistence of global imbalances and the risk that they unwind in a disorderly manner, potentially involving volatile exchange rates and possible sharp changes in interest rates.

**A.102** A broader global forecast issue concerns the impact of major changes in the structure of the world economy on the sustainable rate of world growth. World growth has been significantly above its long-run average rate for four consecutive years, and the forecast assumes it will moderate towards what in historical terms are more sustainable rates. However, insofar as the integration of major emerging market economies, including China and India, continues to raise the world's output potential through higher utilisation and more productive employment of labour, then it is possible that higher growth rates could persist into the medium term, and should be considered more sustainable.

**A.103** These changes could present significant medium-term risks in both directions. On the upside, there is potential for higher rates of world growth to continue for longer than expected; but on the downside, if emerging market economies are adding more to world supply than they are adding to world demand it could exacerbate global imbalances at a time when they are already large.

**UK economy A.104** Domestically, the key uncertainty identified in Budget 2006 concerned the tension between cyclical indicators of the degree of slack in the economy and the output gap implied by the trend growth arithmetic. Following National Accounts revisions, particularly those published in the 2006 Blue Book, the coherence between the latest output gap estimate and the cyclical indicators has improved, but considerable uncertainty remains over the extent to which official population and labour supply data adequately measure migration flows. If inflows have been higher than measured, it may imply a greater degree of slack in the economy or more scope for growth.

**A.105** Domestic forecast risks are broadly balanced across the components of demand. There are, for example, potential downside risks to the private consumption forecast. Surveys of consumers' saving intentions suggest that the pick-up in the household saving ratio over the past year could continue and exceed the Pre-Budget Report forecast, and recent interest rate increases could constrain consumer spending more than expected given levels of household gearing. Offsetting that, developments in the housing market have been somewhat stronger than expected and could be associated with higher consumption growth. In recent months, survey indicators of manufacturing activity have moderated somewhat, although forward-looking indicators for manufacturing export orders remain strong.

**A.106** Despite business investment growth having been revised up in the Pre-Budget Report forecast, there are still significant upside risks. In particular, corporate profitability remains strong, as explained in Box A9, and financing conditions remain benign. Both factors could support stronger growth in business investment.

**A.107** Global risks to the export growth forecast are broadly balanced with upside risks in the UK's largest export market, the EU, balanced by downside risks in the second largest market, the US.

**A.108** With CPI inflation currently above target and RPI inflation forecast to rise further by the end of the year, prior to a large proportion of wage settlements being negotiated, there is a risk to the forecast from rising inflation expectations and second-round effects on inflation. However, so far monetary policy has kept inflation expectations firmly anchored and earnings growth has remained subdued.

**A.109** Since early 2004, annual growth of M4, a broad measure of money in the economy, has picked up from 7 per cent to 14 per cent, the highest rate since 1990. Given the long-run link between money and inflation, this growth could signal future inflationary pressures. However, M4 growth has been driven by a rapid increase in M4 liabilities to financial companies, which may be linked to structural changes in the financial system rather than to economic activity. The contribution of the household and non-financial corporate sectors to M4 growth has been broadly stable over recent years while the growth of notes and coin in circulation, a much narrower measure of money that has been more closely correlated with retail sales over the past decade, has remained below 6 per cent.

**Table A10: Summary of economic prospects<sup>1</sup>**

	Percentage changes on a year earlier, unless otherwise stated					Average errors from past forecasts <sup>5</sup>
	2005	2006	Forecast <sup>2,3,4</sup>			
			2007	2008	2009	2007
<b>Output at constant market prices</b>						
Gross domestic product (GDP)	1 $\frac{3}{4}$	2 $\frac{3}{4}$	2 $\frac{3}{4}$ to 3 $\frac{1}{4}$	2 $\frac{1}{2}$ to 3	2 $\frac{1}{2}$ to 3	$\frac{1}{2}$
Manufacturing output	-1	1 $\frac{1}{4}$	1 $\frac{3}{4}$ to 2	1 $\frac{3}{4}$ to 2 $\frac{1}{4}$	1 $\frac{3}{4}$ to 2 $\frac{1}{4}$	1 $\frac{1}{2}$
<b>Expenditure components of GDP at constant market prices<sup>6</sup></b>						
Domestic demand	1 $\frac{3}{4}$	2 $\frac{3}{4}$	2 $\frac{3}{4}$ to 3	2 $\frac{1}{4}$ to 2 $\frac{3}{4}$	2 $\frac{1}{4}$ to 2 $\frac{3}{4}$	$\frac{3}{4}$
Household consumption <sup>7</sup>	1 $\frac{1}{2}$	2	2 $\frac{1}{4}$ to 2 $\frac{3}{4}$	2 $\frac{1}{4}$ to 2 $\frac{3}{4}$	2 $\frac{1}{4}$ to 2 $\frac{3}{4}$	1
General government consumption	2 $\frac{3}{4}$	2	2 $\frac{1}{2}$	2 $\frac{1}{2}$	2	1
Fixed investment	2 $\frac{3}{4}$	6	5 $\frac{1}{4}$ to 5 $\frac{3}{4}$	3 $\frac{1}{4}$ to 3 $\frac{3}{4}$	3 $\frac{1}{4}$ to 3 $\frac{3}{4}$	2 $\frac{1}{2}$
Change in inventories <sup>8</sup>	0	0	0	0	0	$\frac{1}{4}$
Exports of goods and services <sup>9</sup>	7	11 $\frac{1}{2}$	$\frac{1}{2}$ to 1	4 $\frac{3}{4}$ to 5 $\frac{1}{4}$	4 $\frac{1}{2}$ to 5	1 $\frac{3}{4}$
Imports of goods and services <sup>9</sup>	6 $\frac{1}{2}$	11	$\frac{1}{4}$ to $\frac{1}{2}$	4 $\frac{1}{4}$ to 4 $\frac{3}{4}$	4 to 4 $\frac{1}{2}$	2 $\frac{1}{4}$
Exports of goods and services (excluding MTIC)	4 $\frac{1}{4}$	6	5 to 5 $\frac{1}{2}$	4 $\frac{3}{4}$ to 5 $\frac{1}{4}$	4 $\frac{1}{2}$ to 5	-
Imports of goods and services (excluding MTIC)	4	6 $\frac{1}{4}$	4 $\frac{1}{4}$ to 4 $\frac{3}{4}$	4 $\frac{1}{4}$ to 4 $\frac{3}{4}$	4 to 4 $\frac{1}{2}$	-
<b>Balance of payments current account</b>						
£ billion	-27 $\frac{1}{2}$	-32	-37 $\frac{1}{2}$	-38 $\frac{3}{4}$	-40 $\frac{3}{4}$	10
Per cent of GDP	-2 $\frac{1}{4}$	-2 $\frac{1}{2}$	-2 $\frac{3}{4}$	-2 $\frac{3}{4}$	-2 $\frac{3}{4}$	$\frac{3}{4}$
<b>Inflation</b>						
CPI (Q4)	2 $\frac{1}{4}$	2 $\frac{1}{2}$	2	2	2	-
Producer output prices (Q4) <sup>10</sup>	2 $\frac{1}{2}$	2 $\frac{1}{4}$	2	2	2	1
GDP deflator at market prices	2 $\frac{1}{4}$	2 $\frac{1}{2}$	2 $\frac{3}{4}$	2 $\frac{3}{4}$	2 $\frac{3}{4}$	$\frac{1}{2}$
<b>Money GDP at market prices</b>						
£ billion	1224 $\frac{1}{2}$	1287 $\frac{1}{2}$	1360 to 1366	1431 to 1445	1505 to 1526	10
Percentage change	4	5 $\frac{1}{4}$	5 $\frac{3}{4}$ to 6	5 $\frac{1}{4}$ to 5 $\frac{3}{4}$	5 $\frac{1}{4}$ to 5 $\frac{3}{4}$	$\frac{3}{4}$

<sup>1</sup> The forecast is consistent with output, income and expenditure data for the third quarter of 2006, released by the Office for National Statistics on 24 November 2006. See also footnote 1 on the second page of this annex.

<sup>2</sup> All growth rates in tables throughout this annex are rounded to the nearest  $\frac{1}{4}$  percentage point.

<sup>3</sup> 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 2 $\frac{3}{4}$  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  $\frac{1}{4}$  percentage point below the neutral assumption.

<sup>4</sup> 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.

<sup>5</sup> 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 2007.

<sup>6</sup> Further detail on the expenditure components of GDP is given in Table A11.

<sup>7</sup> Includes households and non-profit institutions serving households.

<sup>8</sup> Contribution to GDP growth, percentage points.

<sup>9</sup> Figures up to and including 2007 are distorted by estimates of MTIC-related activity. Growth rates excluding MTIC are shown in subsequent lines of this table and in Table A8.

<sup>10</sup> Excluding excise duties.

Table A11: Gross domestic product and its components

£ billion chained volume measures at market prices, seasonally adjusted											
	Household consumption <sup>1</sup>	General government consumption	Fixed investment	Change in inventories	Domestic demand <sup>2</sup>	Exports of goods and services <sup>3</sup>	Total final expenditure	Less imports of goods and services <sup>3</sup>	Plus statistical discrepancy <sup>4</sup>	GDP at market prices	
<b>2005</b>	759.3	246.8	194.6	3.6	1203.9	320.4	1524.3	357.4	0.8	1167.8	
<b>2006</b>	775.4	251.8	206.3	3.8	1237.3	357.3	1594.6	396.8	0.8	1198.7	
<b>2007</b>	793.1 to 796.5	257.7	217.1 to 218.0	2.4 to 3.5	1270.3 to 1275.7	359.2 to 360.8	1629.5 to 1636.5	397.5 to 399.2	0.8	1232.9 to 1238.1	
<b>2008</b>	810.9 to 818.3	263.9	224.1 to 226.1	1.5 to 3.9	1300.4 to 1312.3	376.6 to 380.1	1677.0 to 1692.4	414.5 to 418.3	0.8	1263.3 to 1274.9	
<b>2009</b>	829.4 to 841.1	269.1	231.1 to 234.4	0.9 to 4.7	1330.4 to 1349.2	393.2 to 398.8	1723.7 to 1748.0	430.9 to 437.0	0.8	1293.6 to 1311.8	
<b>2005</b>											
1st half	378.3	122.5	96.0	1.7	598.4	155.6	754.0	173.7	0.4	580.7	
2nd half	381.0	124.3	98.6	1.9	605.5	164.8	770.3	183.7	0.5	587.0	
<b>2006</b>											
1st half	385.4	125.4	101.2	2.3	614.4	185.9	800.3	205.8	0.4	594.9	
2nd half	389.9	126.4	105.1	1.5	622.9	171.4	794.4	191.0	0.4	603.7	
<b>2007</b>											
1st half	394.4 to 395.6	127.7	107.7 to 108.0	1.3 to 1.7	631.1 to 633.1	177.2 to 177.8	808.4 to 810.8	196.3 to 196.9	0.4	612.5 to 614.4	
2nd half	398.7 to 400.9	130.0	109.4 to 110.0	1.1 to 1.8	639.1 to 642.6	182.0 to 183.0	821.1 to 825.7	201.2 to 202.3	0.4	620.4 to 623.8	
<b>2008</b>											
1st half	403.2 to 406.4	131.3	111.1 to 112.0	0.9 to 1.9	646.5 to 651.7	186.3 to 187.8	832.8 to 839.4	205.3 to 206.9	0.4	627.9 to 632.9	
2nd half	407.7 to 411.9	132.6	112.9 to 114.1	0.6 to 2.0	653.9 to 660.7	190.3 to 192.3	844.2 to 853.0	209.2 to 211.3	0.4	635.4 to 642.0	
<b>2009</b>											
1st half	412.3 to 417.6	133.9	114.7 to 116.2	0.5 to 2.2	661.4 to 669.9	194.5 to 197.0	855.9 to 866.9	213.3 to 216.1	0.4	643.0 to 651.2	
2nd half	417.0 to 423.4	135.2	116.4 to 118.2	0.4 to 2.4	669.1 to 679.3	198.7 to 201.8	867.8 to 881.1	217.6 to 221.0	0.4	650.6 to 660.6	
Percentage changes on previous year <sup>5,6</sup>											
<b>2005</b>	1½	2¾	2¾	0	1¾	7	2¾	6½	0	1¾	
<b>2006</b>	2	2	6	0	2¾	11½	4½	11	0	2¾	
<b>2007</b>	2¼ to 2¾	2½	5¼ to 5¾	0	2¾ to 3	½ to 1	2¼ to 2½	¼ to ½	0	2¾ to 3¼	
<b>2008</b>	2¼ to 2¾	2½	3¼ to 3¾	0	2¼ to 2¾	4¾ to 5¼	3 to 3½	4¼ to 4¾	0	2½ to 3	
<b>2009</b>	2¼ to 2¾	2	3¼ to 3¾	0	2¼ to 2¾	4½ to 5	2¾ to 3¼	4 to 4½	0	2½ to 3	

<sup>1</sup> Includes households and non-profit institutions serving households.

<sup>2</sup> Also includes acquisitions less disposals of valuables.

<sup>3</sup> Figures up to and including 2007 are distorted by estimates of MTIC-related activity.

<sup>4</sup> Expenditure adjustment.

<sup>5</sup> For change in inventories and the statistical discrepancy, changes are expressed as a per cent of GDP.

<sup>6</sup> 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.