



National Audit Office

Audit of Assumptions for the 2006 Pre-Budget Report

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL | HC 125 Session 2006-2007 | 6 December 2006

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John Bourn
Comptroller and Auditor General
National Audit Office

30 November 2006

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REPORT

Audit of Assumptions for the 2006 Pre-Budget Report

Statement of responsibilities

1 Sections 156 and 157 of the Finance Act 1998 provide for me to examine and report on conventions and assumptions underlying the Treasury's fiscal projections that are submitted to me by the Treasury for examination.

2 For this Report, the Chancellor of the Exchequer has asked me to carry out the three year Rolling Review of the equity price assumption and of the consistency of price indices used to project the public finances with the Consumer Prices Index. I previously examined both assumptions for the 2003 Pre-Budget Report¹.

3 The general Rolling Review remit is:

- to ensure that the key audited assumptions underpinning projections of the public finances remain valid, the Comptroller and Auditor General shall examine each audited assumption three years after its most recent audit:
 - a** to review whether the assumption has resulted in reasonable and cautious projections of the elements of the public finances projections it relates to since it was first audited; and
 - b** to check that it remains a reasonable and cautious assumption to use in future projections of the public finances.

4 I audited the 2003 extension of the VAT Compliance Strategy package for the 2003 Pre-Budget Report² and this is due for re-examination under the three year Rolling Review. I also audited the underlying ratio of VAT receipts to consumers' expenditure for the 2003 Pre-Budget

Report, but this assumption was replaced at the time of Budget 2004 by an alternative approach to forecasting VAT receipts, based on analysis of the VAT gap³.

5 As the impact of the VAT Compliance Strategy, the VAT ratio and the VAT gap assumptions together contribute to the Treasury's forecast of the level of VAT receipts, it is not in practice possible to separate the effects of the different elements in a meaningful way. It is therefore preferable to audit the three assumptions together. My audit of assumptions for the 2005 Pre-Budget Report noted that the Treasury would ask me to carry out a review of the forecasting assumptions that underlie VAT receipts, including those that relate to the VAT Compliance Strategy, as part of my audit of assumptions for Budget 2007 or before⁴. The Treasury has now asked me to carry out that work at the time of Budget 2007, when the audit of the VAT gap assumption introduced in 2004 will in any case be due for audit under the Rolling Review arrangements.

6 The assumption for the underlying growth rate of the economy used by the Treasury for the fiscal projections is 2½ per cent per year up to Q4 2006. It was then to be reduced to 2¼ per cent per year for the post-2006 period, to reflect a slowing in the growth of population of working age, due primarily to the retirement of women born in the post-War baby boom⁵.

7 In the light of more recent data and analysis on the population of working age, the Treasury has not reduced the underlying growth rate. The fiscal projections for the 2006 Pre-Budget Report are therefore based on an assumed rate of 2½ per cent per year.

¹ *Audit of Assumptions for the 2003 Pre-Budget Report*, HC 35, Session 2003-04.

² *Audit of Assumptions for the 2003 Pre-Budget Report*, HC 35, Session 2003-04, paragraphs 9-23.

³ *Audit of Assumptions for Budget 2004*, HC 434, Session 2003-2004.

⁴ *Audit of Assumptions for the 2005 Pre-Budget Report*, HC 707, Session 2005-06, paragraph 114.

⁵ *Audit of Assumptions for Budget 2006*, HC 937, Session 2005-06.

8 Accordingly, the Chancellor has asked me to assess if the assumption of an underlying growth rate of 2½, rather than 2¼, per cent per year for the post-2006 period is reasonable and cautious.

9 The Treasury has advised me that none of the other assumptions examined in previous Reports has been changed. As before, the Treasury remains responsible for making projections of future public expenditure and revenue on the basis of the audited and other assumptions.

Basis of report and opinion

10 I have considered the available evidence gathered for this audit from relevant papers and discussions with officials in the Treasury and the Bank of England in connection with the Rolling Review of the equity price assumption and the consistency of price indices.

11 The work I have carried out to look at the underlying growth rate of the economy is market sensitive. My audit is therefore based on evidence that I gathered only from the Treasury and from the Office for National Statistics, on a confidential basis. I was not able to consult external forecasters or other relevant experts, which I might otherwise have done.

Report

Equity prices

12 The equity price assumption directly affects projections of receipts from stamp duty, capital gains tax, inheritance tax and corporation tax on capital gains from life insurers, and so affects projections of the public finances. All other things being equal (including exactly correct forecasts of equity turnover and realisation rates), underestimating equity prices will lead to an underestimation of government revenues and vice versa.

13 While there is a great deal of information on companies and markets that could provide a basis for forecasting equity prices, this information is available to market participants in the equity market, and the efficiency of these markets should mean that all available information will be reflected in existing market prices. Short term changes in equity prices will therefore depend on unforeseen events, which by their nature cannot be forecast.

14 In the longer term, consistent with economic theory, it is reasonable to expect that equity prices will reflect the profits of businesses and grow in line with them. The share of GDP represented by companies' profits has tended to be stable and is expected to remain so⁶. As a result, the Treasury assumes that nominal equity prices (represented by the FTSE all-share index) will grow from current levels⁷ at the same rate as GDP in money terms.

15 Over the Rolling Review period since 2003, the FTSE all-share index was higher than predicted on the basis of growth of money GDP for almost all of the period, **Figure 1**. Outturns for equity prices have therefore been very largely above projections during the Rolling Review period.

16 As a result, as **Figure 2** shows, the Treasury's forecasts of equity prices led to underestimates of the associated revenues for 2003-04 and 2005-06. In 2004-05 the equity price assumption more or less correctly predicted the average of equity prices over the year, resulting in a very small over-prediction of associated revenues. The assumption was therefore cautious over the Rolling Review period as a whole, with an underestimation of associated revenues over the period.

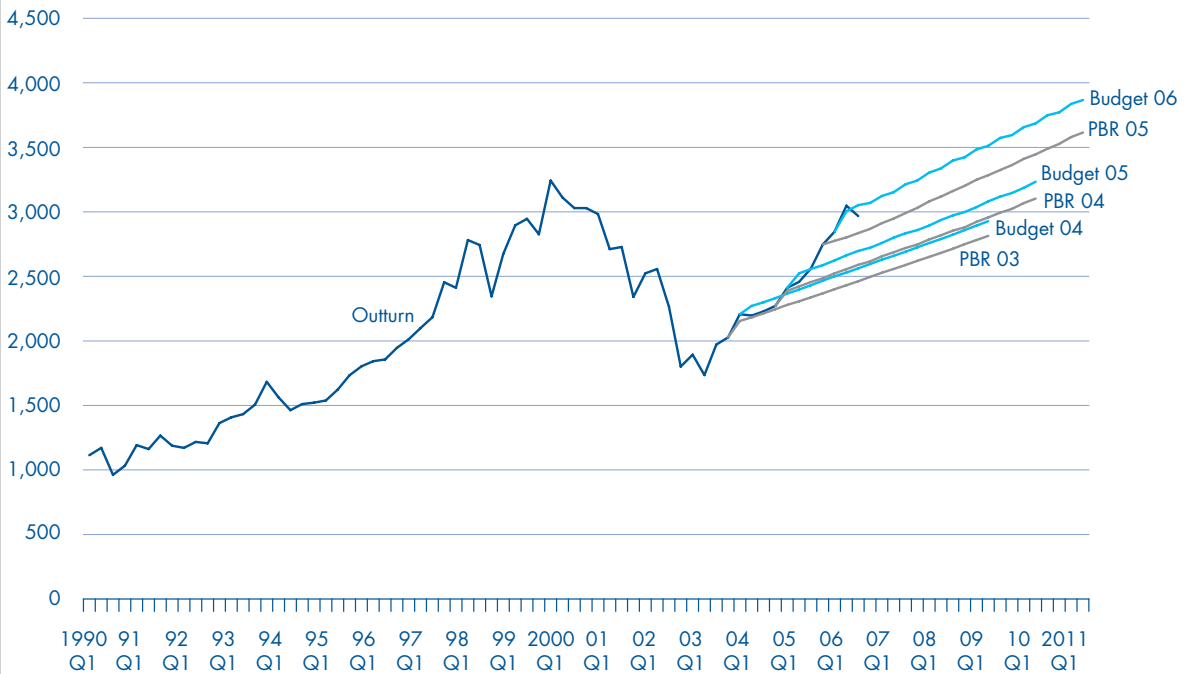
17 There is longer term evidence of the relationship between growth in equity prices and money GDP. Over the ten years, from 1996 to 2006, equity prices increased by 65 per cent and money GDP by 68 per cent. The Treasury's assumption has therefore tended to perform better in the longer term, though the relationship is not exact on a year to year basis.

⁶ I examined the relative factor shares of labour and profits in my *Audit of Assumptions for Budget 2004*, HC 434, Session 2003-04 and concluded that there was a theoretical basis and supporting empirical evidence for the assumption that shares of national income are broadly constant in the medium term though with some fluctuations about the average.

⁷ The 'current level' is defined as the closing price on a date shortly before publication of the Budget or Pre-Budget Report. The date and level are set out in the relevant Budget or Pre-Budget Report.

1 Outturn equity prices and Budget and Pre-Budget Report projections over the Rolling Review period

FTSE AllShare index against forecast



Source: HM Treasury

2 Estimates of over (+) and under-prediction (-) of forecast revenues as a result of lower/higher than expected equity prices (£ billion)

Type of revenue	2003-04	2004-05	2005-06
Corporation tax	0.0	0.0	-0.9
Stamp duty	-0.2	0.0	-0.1
Capital gains tax	0.0	0.0	0.0
Inheritance tax	0.0	0.0	-0.1
Total	-0.3	0.1	-1.0

Source: HM Treasury

NOTES

Figures for 2003-04 relate to the one year ahead projection made in Budget 2003 and so on. A positive number represents an over-prediction of forecast revenue and vice versa. Figures may not add to totals due to rounding.

The full impact may be greater as in general there is a lag between the time the tax liability arises and the eventual tax payment.

18 I commented in 2003 that the underlying principles of the Treasury's approach are widely accepted, and that similar approaches are used by the International Monetary Fund, the Institute of Fiscal Studies and the United States Congressional Budget Office⁸. The Bank of England applies the same underlying economic theory as the Treasury that equities can be priced as the present discounted value of future dividends but derives its equity price projections from projections of the path of dividends and assumptions of discount rates. This approach leads to predictions of future equity prices that rise broadly in line with nominal GDP over the forecast period. The Treasury retains its preference for projections based on a rule that directly links equity prices and money GDP growth as a simple and transparent approach.

8 *Audit of Assumptions for the 2003 Pre-Budget Report*, HC 35, Session 2003-04.

The consistency of price indices used in forecasting public finances and the Consumer Prices Index

19 The price indices used to forecast significant elements of government revenue and expenditure are the Retail Prices Index (RPI), the Rossi Index and the price deflator of Gross Domestic Product (GDP deflator). The RPI affects non-income related benefits, tax allowances and thresholds, interest payments on index linked gilts, and specific duties. The Rossi index is used to uprate income related benefits while the GDP deflator has a small indirect effect on Housing Benefits.

20 In 2003, the basis of the Government's target for inflation was changed from the Retail Prices Index excluding mortgage interest payments (RPIX) to the Consumer Prices Index (CPI)⁹. The consistency requirement for the price indices over the Rolling Review period was therefore that the projections of the price indices used to project the public finances should be consistent with CPI rather than RPIX.

21 **Figure 3** shows the paths for inflation measured by the CPI and the RPI over the Rolling Review period. RPI inflation has been consistently above CPI inflation throughout the period. The gap between the two inflation rates partly reflects differences in the coverage of and weights applied to some goods and services. This arises because the CPI includes spending by all private households, whilst the RPI excludes the top four per cent of households by income and pensioners deriving at least three quarters of their income from state benefits. The CPI also excludes mortgage interest payments, council tax, rent and housing depreciation costs, which are included in the RPI. A difference in the statistical formulae used to calculate the two measures also leads to a divergence in their rates, tending to reduce the CPI inflation rate relative to the RPI inflation rate¹⁰.

22 The formula effect has consistently accounted for around 0.5 percentage points of the gap between RPI and CPI inflation over the Rolling Review period. However, RPI and CPI inflation rates tended to converge from the first half of 2005, as the rates of growth of both housing depreciation costs and council tax payments moderated and the contribution from mortgage interest payments also declined. This caused the RPI to fall while CPI, which excludes these components, increased.

23 **Figure 4** shows the paths for inflation measured by CPI and Rossi. The Rossi index is equal to the RPI excluding mortgage interest payments, council tax, rent and housing

depreciation costs. The CPI also excludes these items, so the paths of Rossi and CPI are quite similar. The divergences arise from remaining differences in coverage and weights, as well as because of the formula effect.

24 **Figure 5** shows the paths for inflation measured by CPI and the GDP deflator. The GDP deflator is a much broader price index than either the RPI or the CPI, which measure only consumer prices. It is a measure of the price of domestic value added, and reflects the prices of all domestically produced goods and services, and thus also includes the price of investment goods, government services and exports, while taking account of import prices. Whilst CPI inflation has increased over the Rolling Review period, the GDP deflator has fallen. The fall in the GDP deflator from early 2005 mainly reflects the short term impact of a decline in the terms of trade (the ratio of export to import prices), as import price inflation has picked up and export price inflation has fallen.

25 **Figure 6** shows the Treasury's forecasts for CPI, RPI, Rossi and the GDP deflator.

26 The Treasury forecasts that CPI inflation will return to the two per cent target rate during the second half of 2007, while Rossi inflation will remain slightly above CPI inflation at 2¼ per cent. RPI inflation is forecast to rise from its current rate in the short term, driven in part by the impact of market expectations of higher interest rates on mortgage interest payments. Beyond the near term, RPI inflation is expected to decline to 3¼ per cent in the third quarter of 2007 before settling at 2¾ per cent. The GDP deflator is also forecast to fall back from its present rate to settle at 2¾ per cent over the forecast period.

The underlying trend rate of growth of the economy

The Treasury has assumed that the underlying trend growth rate of the economy used for making the fiscal projections will remain 2½ per cent per year for the post-2006 period, and not reduce to 2¼ per cent as previously

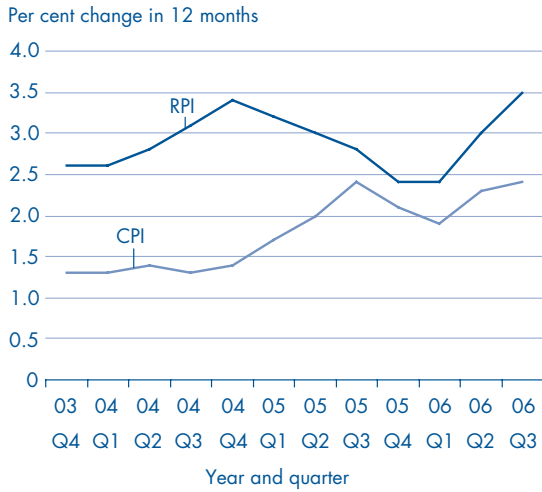
27 The Treasury's neutral projection for the economy's trend rate of growth between Q3 2001 and Q4 2006 has remained unchanged since Budget 2002, when it was set at 2¾ per cent a year. In projecting the public finances, the Treasury incorporates a margin of caution by adopting a projection ¼ of a percentage point lower than the neutral projection¹¹, and has used an assumption of 2½ per cent a year over the period to Q4 2006, **Figure 7**. The Treasury defines the trend rate of growth on the basis of UK non-oil Gross Value Added (GVA).

⁹ As described in my report on *Audit of Assumptions for the 2003 Pre-Budget Report*, HC 35, Session 2003-04, paragraph 58.

¹⁰ The formula effect arises because prices are averaged within expenditure categories in the CPI using the geometric mean, whereas the RPI uses the arithmetic mean.

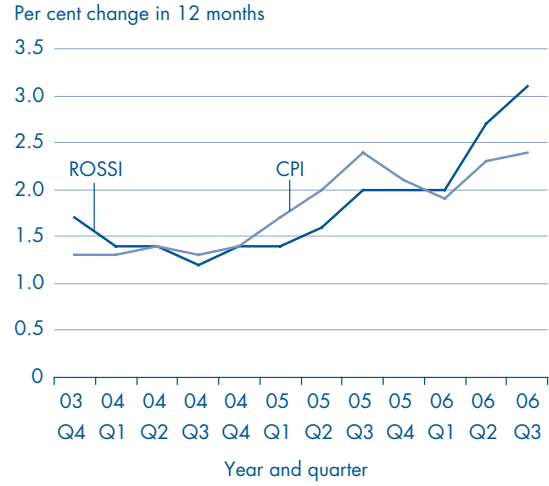
¹¹ I do not audit the ¼ percentage points margin for caution used by the Treasury.

3 Comparisons of annual CPI and RPI inflation



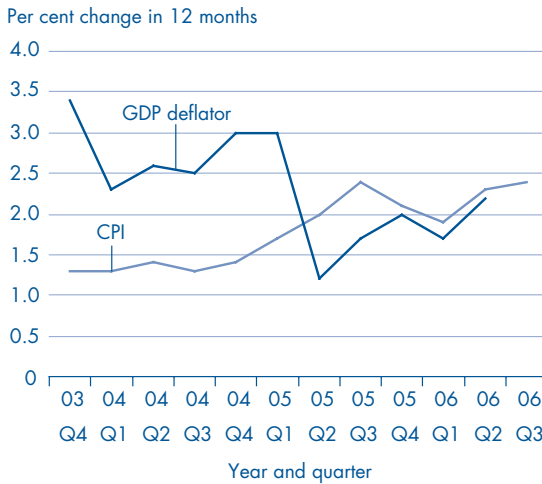
Source: HM Treasury

4 Comparisons of annual CPI and Rossi inflation



Source: HM Treasury

5 Comparison of CPI and GDP deflator



Source: HM Treasury

6 Forecasts of percentage changes in CPI, RPI, Rossi and the GDP deflator on a year earlier

Year	CPI	RPI	Rossi	GDP deflator
2007 Quarter 3	2	3¼	2¼	2¾
2008 Quarter 3	2	2¾	2¼	2¾
2009 Quarter 3	2	2¾	2¼	2¾
2010 Quarter 3	2	2¾	2¼	2¾
2011 Quarter 3	2	2¾	2¼	2¾

Source: HM Treasury

7 Treasury estimates of the underlying growth rate of the economy and the rate assumed for the purposes of making the fiscal projections prior to Pre-Budget 2006, UK non-oil Gross Value Added, per cent per year

	Underlying growth rate	Rate used for the fiscal projections
Q3 2001 – Q4 2006	2¾	2½
Q4 2006 onwards	2½	2¼

Source: HM Treasury

Upward revision of the population of working age

28 For the post-2006 period, the assumed underlying growth rate was set to decrease because the population of working age was expected to grow more slowly than before. The population of working age is one component of the underlying growth rate¹², and the lower rate of growth of population of working age reflects the impact of post-War baby boom women coming up to retirement age¹³.

29 The Treasury expects, however, that this effect will be offset by the level of net inward migration now projected over the forecast period. Migrants in this context are defined as individuals who change their country of usual residence for a period of at least a year, so that the country of destination becomes the country of usual residence.

30 The most recent principal projection of net migration was published by the Government Actuary's Department (GAD) in October 2005, based on Office for National Statistics estimated outturn data for migration to mid-year 2004. It projected that net migration to the United Kingdom would fall from a peak of 255,000 in 2004-05, to a long term average of 145,000 per year by 2007-08¹⁴. The outturn figures for net inward migration rose in calendar year 2004 to 223,000 and then fell back to 185,000 in 2005¹⁵.

31 In the 2005 Pre-Budget Report the Treasury noted that there had been upward revisions to the ONS population estimates and to GAD's population projections, but concluded that the evidence was not firm enough at that stage to change its overall trend growth projection¹⁶. The Treasury has now reassessed the likely level of future net migration.

32 The Treasury's analysis of Office for National Statistics data¹⁷ by geographical area show long term upward trends in net migration into the UK from the Commonwealth and from the European Union excluding the A8 countries¹⁸. There is also an upward trend in net

migration from the 'Rest of the World', though with a break in this time series in 2004, when the A8 countries acceded to the European Union and the data were reclassified to be part of the EU. On the basis of this analysis, the Treasury assumes net inward migration of 190,000 per year over the forecast period, which lies between the GAD's principal projection of 145,000 and its upper variant projection of 205,000 per year in the longer term.

33 The GAD projections made an allowance for additional net migration from the A8 countries, but no allowance was made for Bulgaria or Romania. The Treasury's trend analysis is based on data series that do not include migration from the A8 after 2004, so it makes no allowance for the impact of the accession of the A8 countries. No account is taken either of any migration impact of the accession of Bulgaria and Romania in 2007. Recorded inward migration from the A8 countries was 49,000 in 2004 and 64,000 in 2005¹⁹. The Treasury's projection of net inward migration would therefore need to be a significant overestimate before it became an unreasonable basis for projections of net inward migration including that from A8 countries.

34 Some external forecasts provide support for the Treasury view. Goldman Sachs estimates that "net immigration increased to over 0.5% of the population in 2005 and 2006", and has based its latest estimates of demographic projections on the Government Actuary's Department high net migration variant of 205,000²⁰. Oxford Economics considers migration trends to be highly uncertain, but "estimates that over the period 2007-2008 the population of working age will expand by around 0.7 per cent per annum, adding 0.5 percentage points to potential growth". Over the period 2009-2010, however, Oxford Economics expects the effects of an aging population and a slowdown in net inward migration to mean that the contribution could fall to 0.4 per cent per year²¹.

12 See, for example, *Audit of Assumptions for Budget 2002*, HC 760, Session 2001-02, paragraph 12.

13 *Audit of Assumptions for Budget 2006*, HC 937, Session 2005-06, paragraph 9.

14 Office for National Statistics & Government Actuary's Department, *News Release*, 20 October 2005.

15 Office for National Statistics, *News Release*, 2 November 2006, Table 1. Projections are made on a mid year to mid year estimate basis, while actuals are for the calendar year.

16 HM Treasury, *Pre-Budget Report*, December 2005, Cm 6701, paragraph A42.

17 Office for National Statistics, *International Migration*, Series MN No. 31, 2006, Stationery Office, London. http://www.statistics.gov.uk/downloads/theme_population/MN31.pdf and Office for National Statistics, *Over 500 a day gained through migration to the UK*, Press Release, 2 November 2006. <http://www.statistics.gov.uk/pdfrdir/intmigrat1106.pdf>

18 The A8 countries that acceded to the EU from May 2004 are Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovenia and Slovakia. The citizens of Malta and Cyprus, which also became full European Union members on 1 May 2004, already had relatively free access to the European Union labour market. Bulgaria and Romania (the "A2") will join the EU in 2007.

19 Office for National Statistics *News Release*, 2 November 2006, Table 1. Evidence available to date from the International Passenger Survey and the Worker's Registration Scheme supports the view that a greater proportion, if not all, of A8 migrants are of working age.

20 Goldman Sachs, *UK Economics Analyst*, Issue 06/11, November 2006.

21 Oxford Economics, *UK Weekly*, 13 October 2006.

35 Together with natural growth of the population of 26,000 per year, the Treasury's projection of net inward migration of 190,000 a year over the forecast period results in a post-2006 projection for the growth of population of working age of just under 0.6 per cent per year. This in turn implies an increase in the Treasury's neutral assumption for the underlying growth rate from 2½ to 2¾ per cent per year, or 2½ per cent per year for the assumption used for the fiscal projections²².

Comparisons with external forecasts of the underlying growth rate indicate that the assumption of 2½ per cent per year is below the bottom of the range of estimates

36 An important consideration in support of the Treasury assuming a trend growth rate of 2½ per cent per year for the fiscal projections for the post-2006 period is that external forecasters are generally assuming a higher figure.

37 Available forecasts of trend growth made by external organisations differ in the way that they are estimated and in some cases cover different forecast periods. **Figure 8** shows the latest forecasts of trend growth issued by several external organisations. The Treasury's assumption of trend growth of 2½ per cent a year for the post-2006 period is below all of these external estimates, the lowest being 2.6 per cent per year.

38 The estimates in Figure 8 are based on whole economy GDP. The Treasury defines its assumption for the underlying growth rate in terms of non-oil GVA, because it considers that the North Sea oil and gas sector has little direct impact on the sustainable level of employment and non-oil activity²³. As North Sea oil and gas output is expected to trend downwards, its contribution to GVA will increasingly fall. Growth rates measured including the oil and gas sector will therefore be lower than if defined excluding it. In other words, on a comparable non-oil GVA basis, the average of external forecasters would be slightly higher than shown in Figure 8²⁴. This increases the margin between the external average estimate and the Treasury assumption.

39 An additional comparison can be made with short and medium term forecasts of output. Short term forecasts will include cyclical effects and not be a proxy for the underlying growth rate. However, most economic models assume that GDP growth will return to its trend or equilibrium growth rate in the medium to longer term. Consequently,

forecasts for later years may be something of a proxy for the underlying rate. They may though still contain some cyclical elements and therefore offer a less reliable guide for trend growth than the estimates in Figure 8.

8 External estimates for United Kingdom trend rate of growth (per cent a year) beyond 2006

Organisation	Estimated trend rate of growth	Period	Estimation methodology
OECD ¹	2.7	2006-2008	Production function
Economic Policy Committee ²	2.8	2004-2011	Production function
EC ³	2.7	2006-2007	Production function
IMF ⁴	2.6	2006-2011	Production function
OEF ⁵	2.7	2006-2010	Production function
NIESR ⁶	2.6	2006-2014	Band-pass filter
Goldman Sachs ⁷	2.9	2005-2010	On-trend extrapolation
Highest ⁸	2.9	2006-2010	
Lowest ⁸	2.6	2006-2010	
Average ⁸	2.7	2006-2010	
Average ⁹	2.7	2007	

Source: HM Treasury

NOTES

- 1 Consistent with Economic Outlook 80.
- 2 *The Economic Policy Committee, Special Report No: 4/2005* (produced jointly by the EPC (ECOFIN) and EC).
- 3 EC Autumn forecast 2006.
- 4 Article IV Staff Report on the UK, Medium-term scenario (trend growth rate as implied by the output growth and the output gap forecasts over the period).
- 5 *UK Weekly*, October 2006.
- 6 *Economic Review* No. 198, October 2006.
- 7 *UK Economics Analyst*, November 2006.
- 8 The calculations of the minimum, maximum and average over the 2006-2010 period exclude the OECD and EC estimates due to data availability.
- 9 The average is for all seven estimates shown.

22 The neutral estimate of the underlying growth rate is based on assumed productivity growth of 2.15 per cent per year, average hours growth of -0.2 per cent per year, employment rate growth of 0.2 per cent per year and 0.6 per cent per year growth of population of working age. The assumption for the underlying growth rate used for the fiscal projections is taken by the Treasury as ¼ percentage points lower than the neutral estimate.

23 *Audit of Assumptions for Pre-Budget 2005*, HC 707, Session 2005-06, paragraph 16.

24 The Treasury puts this effect at 0.1 percentage points increase.

40 **Figure 9** shows a range of independent forecasts of GDP growth from 2007 to 2010. With the exception of the short term forecasts for 2007, the Treasury's trend growth assumption of 2½ per cent a year used for the fiscal projections is equal to or below the average of these external estimates. The estimates in Figure 9 are based on whole economy GDP, which for the reason above, are slightly lower than on the non-oil GVA definition used

9 External estimates for United Kingdom short and medium term rates of growth (per cent a year) beyond 2006

	2007	2008	2009	2010
Bank of America	2.6	2.5	2.5	2.5
BNP Paribas	2.1	2.0	2.5	2.5
Citigroup	2.5	2.6	3.1	3.4
Commerzbank	2.5	2.6	2.0	3.2
Daiwa Institute of Research	2.3	2.8	3.2	3.0
Goldman Sachs	2.6	2.9	2.9	–
Hermes	2.2	2.3	2.3	2.3
HSBC	1.8	2.1	2.5	2.5
ING	2.2	2.5	2.8	2.6
MacroEcon.com	2.5	2.7	2.7	2.8
Beacon Economic Forecasting	2.6	2.1	1.7	1.7
Cambridge Econometrics	2.7	3.1	2.7	2.5
CEBR	2.3	2.2	2.7	2.7
Experian	2.4	2.5	2.9	2.9
Global Insight	2.5	2.7	2.9	2.5
ITEM Club	2.9	2.9	2.7	2.5
Liverpool Macro Research	2.7	2.3	2.1	2.0
NIESR	2.6	2.6	2.6	–
OEF	2.3	2.8	3.2	3.0
EC	2.6	2.4	–	–
Highest	2.9	3.1	3.2	3.4
Lowest	1.8	2.0	1.7	1.7
Median	2.5	2.5	2.7	2.5
Average	2.4	2.5	2.6	2.6

Source: HM Treasury

by the Treasury. Allowance for this effect would slightly increase the extent to which the external forecasts exceed the Treasury's assumption of 2½ per cent a year.

Conclusions and recommendations

Equity prices

41 The assumption of linking equity price growth to that of money GDP has a theoretical and hence reasonable basis, though in practice, the relationship is unlikely to be valid at all times. For the current Rolling Review period, the assumption proved to be a cautious one for most of the projections of the public finances made in the three years, as outturn equity prices exceeded the Treasury's forecasts.

42 Given the uncertainties, I recommended in 2003 that the Treasury should publish on a regular basis estimates of the impact of errors in equity price projections on the fiscal projections as part of its background documentation²⁵. This was done in the Budget 2004 Report²⁶, but not since, because the errors were either small or on the cautious side.

43 For the future, the evidence is that the relationship between equity prices and money GDP is likely to be imprecise and at times significantly so. But no obviously better alternative method to project equity prices is available, and there remain reasonable grounds to support the continued use of the assumption as a sensible rule for the purpose of forecasting the public finances by the Treasury.

Consistency of price indices

44 There are differences over the Rolling Review period 2003 to 2006 between the paths of the price indices used in forecasting the public finances, (the RPI, the Rossi Index and the GDP deflator), and the CPI. However, the divergences reflect the different definitions of the indices and the fact that excluded or included components have changed at different rates to the CPI. The price indices used over the Rolling Review period were therefore consistent with the CPI. For the future, it is not part of my remit to review how accurate the Treasury's forecasts are likely to be, but there are reasons to explain the different forecast paths assumed for RPI, Rossi and the GDP deflator. The series therefore remain consistent with each other and with the CPI, which is used in the definition of the inflation target.

25 *Audit of Assumptions for the 2003 Pre-Budget Report*, HC 35, Session 2003-04, paragraph 70.

26 *Financial Statement and Budget Report 2004*, page 253.

The underlying growth rate

45 The Treasury has assumed that the downward impact of demographic change on the underlying growth rate occurring now will be offset by higher net inward migration, which adds to the population of working age and hence productive capacity of the economy. The Treasury has therefore assumed that the underlying growth rate of the economy used in making the fiscal projections will remain at 2½ per cent over the forecast period.

46 Given the market sensitive nature of the assumption for the underlying growth rate I was not able to consult as fully as would otherwise have been possible. Nevertheless, there are reasonable arguments why a higher level of net inward migration than assumed previously is credible, supported by similar views on labour supply growth published by some external forecasters. The Treasury's projections of net inward migration are based on trends excluding the impact of migration flows from countries that acceded to the EU in 2004 and to this extent are cautious.

47 The Treasury's revised underlying growth rate assumption adopted for the fiscal projections, ¼ percentage points below the Treasury's neutral estimate, is below the range of external forecasts of the long term growth rate. It is also at or below the average of external forecasters' medium term growth projections. On this basis the revised Treasury assumption is reasonable and cautious.

48 The uncertainties that arise in projecting net inward migration lead me to recommend that the Treasury should regularly review developments relating to trend growth and its components including the population of working age, reporting on significant developments in Budget and Pre-Budget Reports.