National Audit Office

Audit of Assumptions for Budget 2008

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL | HC 345 Session 2007-2008 | 12 March 2008

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This report has been prepared for presentation to the House of Commons under Sections 156 and 157 of the Finance Act 1988.

Tim Burr
Comptroller and Auditor General
National Audit Office

7 March 2008

This report can be found on the National Audit Office web site at www.nao.org.uk

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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 The Chancellor has asked me to conduct a three year Rolling Review of assumptions audited previously. These arrangements were introduced at the time of the March 2000 Budget, to provide a check both that the audited assumptions remain reasonable and cautious, and to see whether they were reasonable and cautious projections in the period since they were last audited. The 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.

3 The audit three years ago[1] examined the assumption for projections of unemployment and the Chancellor has asked me to review this methodology under the Rolling Review remit above.

4 The Treasury has advised me that none of the assumptions examined in my previous Budget and Pre-Budget reports has been changed, though an adjustment has been made to the way in which the interest rate assumption has been applied recently.

5 For the purposes of the public finance projections, the Treasury continues to base interest rates on the market forward curve, an assumption last audited at Budget 2006[2]. Reflecting unusual developments in interbank markets, an adjustment was however made to the 2007 Pre-Budget Report projections, to ensure they were on a like-for-like basis with previous forecasts and in particular to avoid inflating estimates of future debt interest costs. Failing to adjust interest rates in this manner would also have led to forecasting higher receipts from income tax on interest earnings. A similar adjustment will apply for Budget 2008. The interest rate assumption is due to be reviewed under the Rolling Review arrangements at Budget 2009, when I expect to be asked to examine the adjustment.

6 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

7 I have considered the available evidence gathered for this audit from relevant papers and discussions with officials in the Treasury.

1 *Audit of Assumptions for Budget 2005*, HC 452, Session 2004-05.
2 *Audit of Assumptions for Budget 2006*, HC 937, Session 2005-06, paragraphs 29-36.

Report

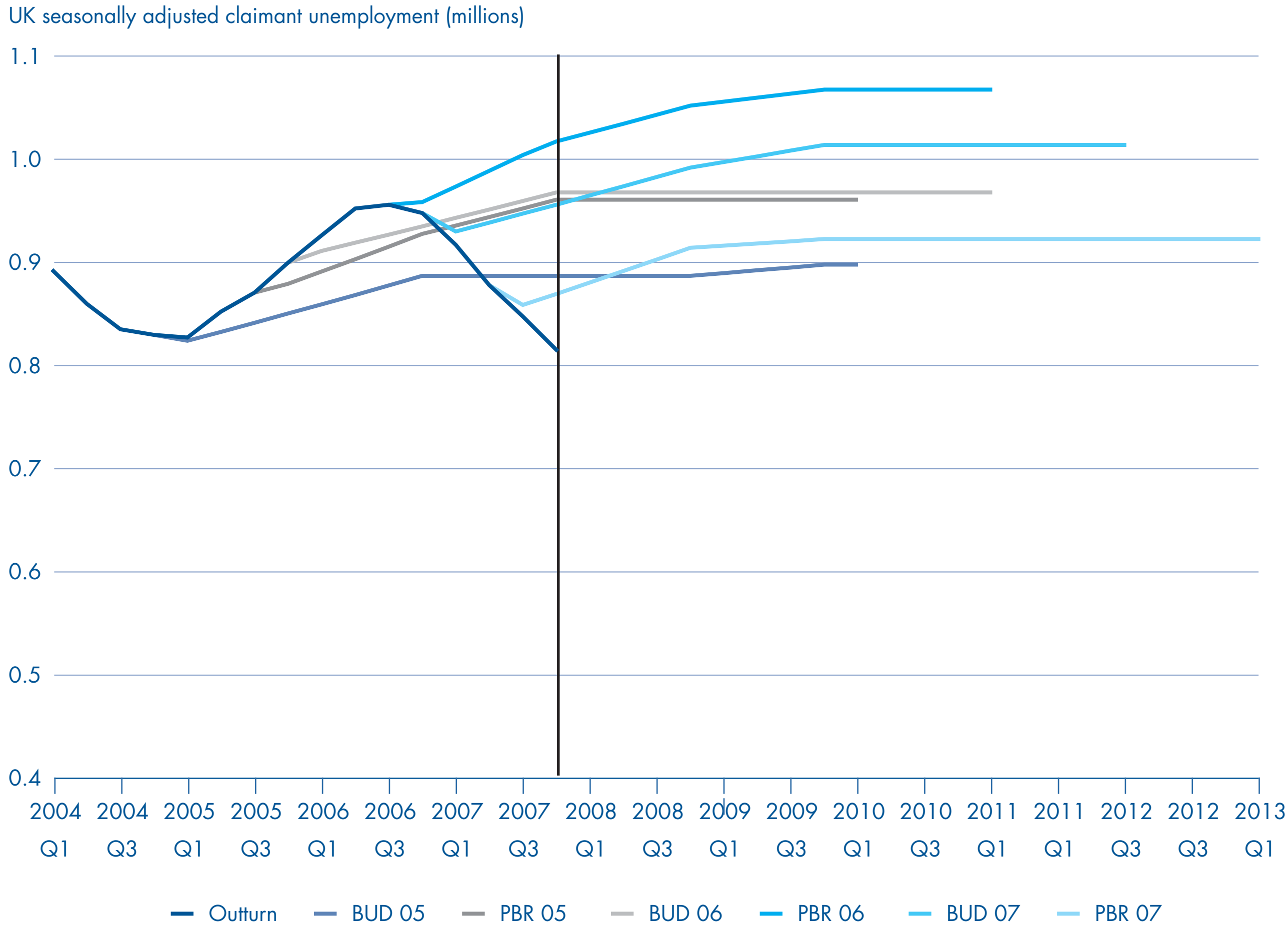
Rolling Review of the methodology for projecting the future level of unemployment

8 The assumption for unemployment underlying the public finance projections is that:

> When the count of claimants of unemployment related benefits, (the "claimant count"), is projected to fall by outside forecasters, it will be assumed that the claimant count will remain constant at its current level. When the claimant count is projected to rise by outside forecasters, the average of outside forecasts will be used[3].

9 **Figure 1** shows the course of actual claimant unemployment and the paths predicted using the assumption, which were adopted for making the various fiscal projections since Budget 2005. The earlier forecasts, in particular for Budget 2005, tended to underestimate outturn in the short term. External forecasters had predicted a rise in unemployment, which was reflected in the Treasury's assumptions, but unemployment rose by more than most forecasters had predicted. As a result, the Treasury's Budget 2005 forecast underestimated the actual level of claimant unemployment for most of the Rolling Review period (9 out of 12 quarters), on average over the period by 25,000 claimants.

1 Treasury unemployment assumptions used in its public finance projections, Budget 2005 to Pre-Budget Report 2007, compared with outturn unemployment (UK seasonally adjusted claimant count, millions)



Source: HM Treasury

NOTE

The vertical line shows the most recent seasonally adjusted unemployment data available

3 Annex 1 gives details of how the assumption is applied in practice.

10 Actual claimant unemployment was also higher than the Treasury had assumed in the 2005 Pre-Budget Report, between Q4 2005 and Q4 2006, and in Budget 2006, for the whole of 2006. For these forecasts, however, on average over the Rolling Review period as a whole, the actual claimant count was below the level assumed by the Treasury.

11 For both the Pre-Budget Reports of 2006 and 2007 and in Budget 2007 the level of unemployment assumed by the Treasury in projecting the public finances exceeded actual claimant unemployment for the whole of the Rolling Review period.

12 **Figure 2** shows the average divergences on a quarterly basis, including for all forecasts taken together.

13 Over the Rolling Review period as a whole, the average divergence between projection and outturn was small, though there was a tendency up to Budget 2006 for projections to be below outturn. Since the 2006 Pre-Budget Report, the assumption has resulted in projections above outturn throughout the Rolling Review period, more than offsetting the previous differences. An assumption based on the upper range of external forecasts would have added more caution in the earlier part of the Rolling Review, although this would have involved an additional degree of judgment by the Treasury in choosing which forecasts to exclude. Since the 2006 Pre-Budget Report, the projections based on the assumption have proved to be cautious.

2 Differences between assumed and outturn levels of unemployment, UK seasonally adjusted

	UK claimant unemployment: differences between assumptions and outturn[1,2]					Thousands	
	Budget 05	PBR 05	Budget 06	PBR 06	Budget 07	PBR 07	
2005 Q1	-3						
2005 Q2	-20						
2005 Q3	-29						
2005 Q4	-49	-20					
2006 Q1	-67	-33	-15				
2006 Q2	-84	-44	-33				
2006 Q3	-78	-33	-29				
2006 Q4	-61	-20	-13	11			
2007 Q1	-30	19	26	56	13		
2007 Q2	9	66	73	111	61		
2007 Q3	39	105	112	156	100	11	
2007 Q4	72	145	152	202	141	49	
Average over individual forecast period	**-25**	**20**	**34**	**107**	**78**	**30**	
Average of all differences over whole Rolling Review period							**27**

Source: HM Treasury

NOTES

1 Positive figures indicate that the UK claimant unemployment assumption was higher than outturn, and negative figures indicate that the UK claimant unemployment assumption was lower than outturn.

2 Differences should be averaged, rather than summed, to produce differences over any period.

14 Outturns which exceed assumed levels of unemployment lead to estimates of the fiscal projections that are too optimistic, and vice versa. Estimates of the additional costs of unemployment related benefit claimants are subject to some uncertainties, but using the Treasury's working assumptions for average costs, social security expenditure was forecast above outturn levels by approximately £120 million in respect of the average difference between projections and outturns over the whole Rolling Review period shown in Figure 2. The impact on the public finances of differences between the projections of unemployment and outturn was therefore small in percentage terms.

15 There is no way to know how cautious the assumption will prove to be in the future but basing the assumption on an average of outside forecasts continues to be a reasonable approach when coupled with continuing Treasury review of the results.

Conclusion

16 Over the Rolling Review period as a whole, the average divergence between projected unemployment and outturn was small. The unemployment assumption proved to be cautious in the later part of the Rolling Review period, though in the earlier part actual unemployment in the initial parts of the projections exceeded the level projected by outside forecasters. The assumption draws on a wide range of external views of the future and is a reasonable one to have used and to continue to use.

ANNEX ONE

Details of the Unemployment Assumption

A1 For the first year ahead, the Treasury assumes that unemployment will rise if the average of outside forecasts shows an increase in unemployment for the fourth quarter of the next calendar year, compared to the current level of claimant unemployment. This level is defined as the average of the last three months of published claimant unemployment data, (UK seasonally adjusted). Exceptionally, the Treasury may use only the latest month's claimant count figure as a base. This would be the case if, for example, in the preceding three months the series was subject to disturbance by factors such as changed eligibility conditions for unemployment related social security benefits.

A2 In order to calculate the one year ahead average outside forecast rate of unemployment, the Treasury collects available forecasts of unemployment, from around 40 outside forecasters. It excludes the highest and lowest 10 per cent to avoid distortion from extreme values, and takes an average of the remaining projections. Forecasts from international organisations are excluded because of definitional differences.

A3 If the average of outside forecasts predicts a rise in unemployment for the fourth quarter of the following calendar year, the Treasury assumes that unemployment will rise to that rate at that time. It then calculates unemployment levels in the intermediate quarters by assuming the rate grows steadily to the next calendar year quarter four level.

A4 If outside forecasters do not predict a rise in unemployment, the Treasury uses a constant profile for the year ahead.

A5 The Treasury also requires projections of unemployment for two and three years ahead, (the medium term), in considering the fiscal position, and uses the same principle for this projection as for the one year forecast. If outside forecasters predict a rise in unemployment the Treasury will assume a rise for the public finance forecast, and if outside forecasters predict a fall, the Treasury will assume a flat profile.

A6 Additionally, if the average short term forecast predicts a rise, but the medium term forecast predicts a fall in later years, the short term level will be used as a minimum; and, if the average short term forecast predicts a fall, (in which case the Treasury uses a flat assumption for the year ahead), but the medium term predicts a rise above this level in later years, the path will then follow the medium term forecasts.

A7 Fewer outside forecasters predict unemployment over the medium term, and the Treasury again removes the highest and lowest 10 per cent of projections and takes an average of the remaining figures. Where the average of the outside forecasts predicts rising unemployment in the medium term, the Treasury extends the short term unemployment forecast over the three year period. It does this by calculating the average change in unemployment for each of the three years, (rather than the average level), from the smaller sample of medium term forecasts, adding this to the fourth quarter figure for each year. Again, the figures for the intermediate quarters are obtained by assuming a steady growth rate up to the fourth quarter figure.

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A report by the Comptroller and Auditor General

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