End of year fiscal report

December 2003

HM TREASURY

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1 INTRODUCTION

The *End of year fiscal report*, first published alongside the 2002 Pre-Budget Report, is central to the Government's retrospective reporting and analysis of fiscal issues and builds on the information published in the Pre-Budget Report and the Budget. This year's report looks at trends in the fiscal public finances and fiscal policy in 2001-02 and 2002-03, analysing:

- **performance against the fiscal rules and fiscal policy objectives; and**
- **differences between forecast and fiscal outturn for the year-ahead forecasts published in Budget 2001 and Budget 2002.**

The report shows that the Government was firmly on track to meet its fiscal rules in 2001-02 and 2002-03 while allowing fiscal policy to support monetary policy during a period of global economic uncertainty and weakness.

The forecast analysis shows that the outturn for the current budget was a surplus of 0.9 per cent of GDP in 2002-02 and a deficit of 1.1 per cent of GDP in 2002-03. This compares to a Budget 2001 forecast for 2001-02 of a surplus of 1.6 per cent of GDP and a Budget 2002 forecast for 2002-03 of a surplus of 0.3 per cent.

This report also examines the UK's forecast performance over a longer timescale and compares it internationally. This analysis shows that:

- **since the introduction of the new macroeconomic framework, the overall accuracy of year-ahead forecasts has been broadly unchanged, while outturn public sector net borrowing has been on average lower than the year-ahead forecast, compared to before the new framework when outturns tended to be higher than forecast; and**
- **the UK's forecasting performance is comparable with that of other countries and international organisations, and on average net borrowing outturns since 1998 have been lower than forecast for the UK while for many other European Union Member States outturn borrowing has been above forecast.**

1.1 The Government's reforms to the fiscal framework since 1997 have been designed to ensure that the highest standards of transparency and openness apply to fiscal policy. Transparency is one of the Government's principles for fiscal management set out in the *Code for Fiscal Stability*[1]. It allows effective scrutiny of the conduct of fiscal policy and the state of the public finances, thereby improving the credibility of macroeconomic policy.

1.2 A transparent approach means the Government:

- clearly states the objectives of fiscal policy;
- is open about the way in which those objectives are implemented through the fiscal rules; and
- provides full and complete information on the performance of the public finances against those rules in a clear and timely manner.

[1] *Code for Fiscal Stability*, HM Treasury (1998).

I.3 The *End of year fiscal report* (EYFR) helps to ensure transparency by enhancing the Government's reporting and analysis of fiscal developments. It is a backward looking report, describing performance against the fiscal rules and other fiscal news for the previous two financial years. The EYFR builds on the significant amount of data on and analysis of the public finances that are published at the time of the Pre-Budget Report and Budget, in accordance with the requirements of the *Code for Fiscal Stability*. It ensures that the UK is fully in line with international best practice, including the International Monetary Fund's *Code of Good Practices on Fiscal Transparency*[2].

Purpose of the EYFR

I.4 The EYFR strengthens the Government's fiscal framework by increasing:

- the understanding of how fiscal developments have affected performance against the Government's fiscal rules and fiscal policy objectives;
- the depth of analysis of key fiscal developments or where outturns are significantly different from forecasts; and
- awareness about the starting point for forward-looking projections which will continue to be published, in accordance with the *Code for Fiscal Stability*, in Pre-Budget and Budget Reports.

Coverage

I.5 The focus of the EYFR is on:

- fiscal trends over the two previous financial years and, in particular, performance against the Government's fiscal rules; and
- an analysis of forecast and outturn for the year-ahead forecasts from the last two Budgets.

I.6 This report therefore covers the two years 2001-02 and 2002-03 and, in particular, the Budget 2001 forecast for 2001-02 and the Budget 2002 forecast for 2002-03.

I.7 The two year horizon strikes a balance between timely reporting of fiscal developments and the quality and robustness of data. Data on the public finances is subject to revision for a considerable period after the end of the relevant financial year. In addition, the analysis of the public finances presented in this report depends on macroeconomic data that is subject to revisions for several years, as the data is refined on the basis of more comprehensive information.

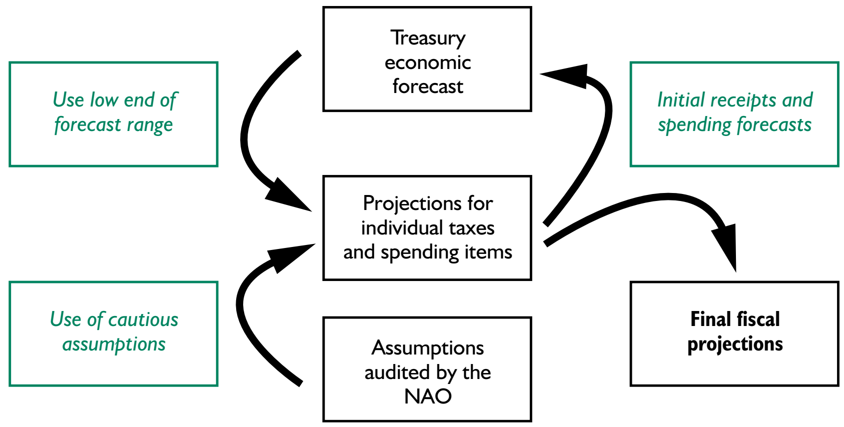
I.8 The data and analysis presented here are therefore not final. This is particularly the case for the most recent year, 2002-03, which will be subject to revisions. Nonetheless, the information is sufficiently robust to provide a sound basis for forecast analysis. Future revisions, particularly for 2001-02, are more likely to change the detail rather than the main conclusions. This year's report also provides some updated analysis on the reasons for difference in 2000-01, as shown in Table 2.5, following revisions to the UK National Accounts.

Forecasting the public finances

I.9 To improve understanding of the analysis provided in this report, the following paragraphs provide an overview of the way in which the Government forecasts the public finances. The Treasury updates its projections of the public finances twice a year in the Pre-Budget Report and the Budget, consistent with the requirements of the *Code for Fiscal Stability*. These projections reflect the work of the Treasury and other departments, particularly Inland Revenue and HM Customs and Excise on the tax projections and the Department for Work and Pensions on social security spending.

[2] *Code of Good Practices on Fiscal Transparency*, International Monetary Fund (2001).

Chart 1.1: The forecasting process



1.10 A schematic representation of the forecasting process is shown in Chart 1.1. The projections for the public finances are underpinned by the Treasury's economic forecast. Departments use the output from the Treasury forecast as 'economic determinants' in their tax and spending forecasts. The Treasury also provides departments with the other assumptions audited by the National Audit Office (NAO). Departments then use this information, supplemented by their own forecasts of more detailed variables, to forecast receipts for individual taxes or spending items.

1.11 The forecasts for revenue and spending are then fed back into the Treasury's economic projections and the process repeats itself, and after several iterations, the final projections are produced. The effect of any Budget or Pre-Budget Report decisions on tax or spending are also incorporated into the projections.

Caution in the public finance projections

1.12 Forecasting the public finances inevitably involves a significant margin of uncertainty, particularly for the fiscal balances, which represent the differences between two very large aggregates. The Government's fiscal framework specifically recognises this uncertainty. The projections for the public finances are therefore based on cautious assumptions, which help to build a margin against unexpected events.

1.13 These assumptions are audited by the NAO on a three-year, rolling-review basis to ensure that they remain both reasonable and cautious. It is important that the assumptions remain reasonable as well as cautious as excessive caution could distort the management of the public finances, particularly public spending. A full list of the audited assumptions used in Budget 2000 and Budget 2001 can be found in Annex B.

1.14 One of the audited assumptions is that for the trend rate of GDP growth, which is assumed to be $^1/_4$ of a percentage point below the Government's neutral view. This means that the rate of economic growth used to forecast the public finances is the bottom end of the projection range. For example, in Budget 2003, the forecast for economic growth for 2003 was 2 to $2^1/_2$ per cent, while the public finance projections were based on the lower 2 per cent value.

Differences between forecast and outturn

1.15 One of the main purposes of the EYFR is to compare forecasts and outturns for the public finances. The analysis in this report identifies a number of possible reasons for differences between forecasts and outturn, reflecting the nature of the forecasting process. Differences between forecast and outturn are attributed to one of four categories:

- **economic determinants:** those attributable to differences between forecast and outturn for economic determinants. For example, forecasts for taxes and spending are heavily influenced by forecasts for economic growth, and this category would include any error in the public finance projections that can be ascribed to variation between forecast and outturn for economic growth;
- **NAO assumptions:** those differences that can be attributed to a divergence between the NAO audited assumptions and their outturn. This would include the effects of the level of unemployment on social security spending or the oil price on receipts from North Sea taxes;
- **fiscal differences:** those that can be ascribed to changes in the relationship between the tax rate and tax base, and the receipts actually received. On the spending side, this would include differences between the forecast take up of benefits and the actual outturn, or differences between outturns and plans for DEL, such as those arising from the UK's recent international commitments; and
- **other differences:** which includes a variety of factors, such as the impact of new measures announced in-year.

1.16 Chapter 2 provides a summary of developments from a macroeconomic perspective. It shows that the Government remained on track to meet its strict fiscal rules in 2001-02 and 2002-03, despite the UK economy facing a period of prolonged uncertainty, accompanied by continued volatility in the financial markets. The Goverment remains vigilant in the face of these risks and the public finances will continue to be based on cautious assumptions. Chapter 2 also examines differences between forecast and outturn for the main fiscal aggregates, shows forecasting performance over time and compares the UK's forecasting performance with that of other countries and international orgainsations. Chapters 3 and 4 set out in more detail the analysis of projections for tax receipts and public spending.

2 MEETING THE FISCAL RULES

This chapter examines performance against the Government's fiscal policy objectives and fiscal rules, and analyses the differences between forecasts for the main fiscal aggregates and outturn. It shows that, over the years 2001-02 and 2002-03:

- **the Government remained on track to meet its firm fiscal rules over the economic cycle;**
- **the average surplus on the current budget since 1999-2000, which is the Government's provisional judgement on the start date of the current economic cycle, is comfortably positive and fully consistent with meeting the golden rule over the economic cycle; and**
- **public sector net debt remained under 31 per cent of GDP over this period, well below the 40 per cent limit of the sustainable investment rule.**

The forecast analysis shows that the outturn for the current budget was a surplus of 0.9 per cent of GDP in 2001-02 and a deficit of 1.1 per cent of GDP in 2002-03. This compares to a Budget 2001 forecast for 2001-02 of a surplus of 1.6 per cent of GDP and a Budget 2002 forecast for 2002-03 of a surplus of 0.3 per cent.

This chapter also examines the UK's forecast performance over a longer timescale and compares it internationally. This analysis shows that:

- **since the introduction of the new macroeconomic framework, the overall accuracy of year-ahead forecasts has been broadly unchanged, while outturn public sector net borrowing has been on average lower than the year-ahead forecast, compared to before the new framework when outturns tended to be higher than forecast; and**
- **the UK's forecasting performance is comparable with that of other countries and international organisations, and on average net borrowing outturns since 1998 have been lower than forecast for the UK while for many other European Union Member States outturn borrowing has been above forecast.**

FISCAL FRAMEWORK

2.1 The macroeconomic framework is designed to promote economic stability. Stability helps individuals, businesses and the Government to plan effectively for the long term, improving the quantity and quality of investment in physical and human capital, and helping to increase productivity.

2.2 To achieve the Government's macroeconomic objectives monetary policy, fiscal policy and the public spending framework are designed to work together in a coherent and integrated way. The monetary policy framework seeks to deliver low and stable inflation, while fiscal policy ensures that the public finances are sustainable over the medium term. The fiscal framework also forms the basis for the public spending framework, which facilitates long-term planning and provides departments with the flexibility and incentives they need to increase the quality of public services and to deliver specified outcomes.

Fiscal objectives and rules

2.3 The Government's objectives for fiscal policy are:

- over the medium term, to ensure sound public finances and that spending and taxation impact fairly within and between generations; and
- over the short term, to support monetary policy and, in particular, to allow the automatic stabilisers to help smooth the path of the economy.

2.4 These objectives are implemented through two fiscal rules, against which the performance of fiscal policy can be judged. The fiscal rules are:

- **the golden rule:** over the economic cycle, the Government will borrow only to invest and not to fund current spending; and
- **the sustainable investment rule:** public sector net debt as a proportion of GDP will be held over the economic cycle at a stable and prudent level. Other things being equal, net debt will be maintained below 40 per cent of GDP over the economic cycle.

PERFORMANCE AGAINST OBJECTIVES AND RULES

2.5 Table 2.1 shows performance against the fiscal rules. It shows the key fiscal aggregates since 1999-2000, which is the Government's provisional judgement on the start of the current economic cycle, on the basis of the latest outturn information.

The golden rule

2.6 The golden rule is met if, over the economic cycle, the average surplus on the current budget expressed as a ratio to GDP is equal to or greater than zero. While the current budget moved into deficit in 2002-03, Table 2.1 shows that the average surplus since 1999-2000 is above zero, showing that the Government is on track to meet the golden rule.

Table 2.1: Meeting the fiscal rules

	Per cent of GDP			
	1999-00	2000-01	2001-02	2002-03
Golden rule				
Surplus on current budget	2.1	2.1	0.9	–1.1
Average surplus since 1999-00	2.1	2.1	1.7	1.0
Cyclically-adjusted surplus on current budget	1.8	1.4	0.6	–0.6
Sustainable investment rule				
Public sector net debt	36.2	31.2	30.2	30.9
Core debt	36.1	31.8	31.1	31.2

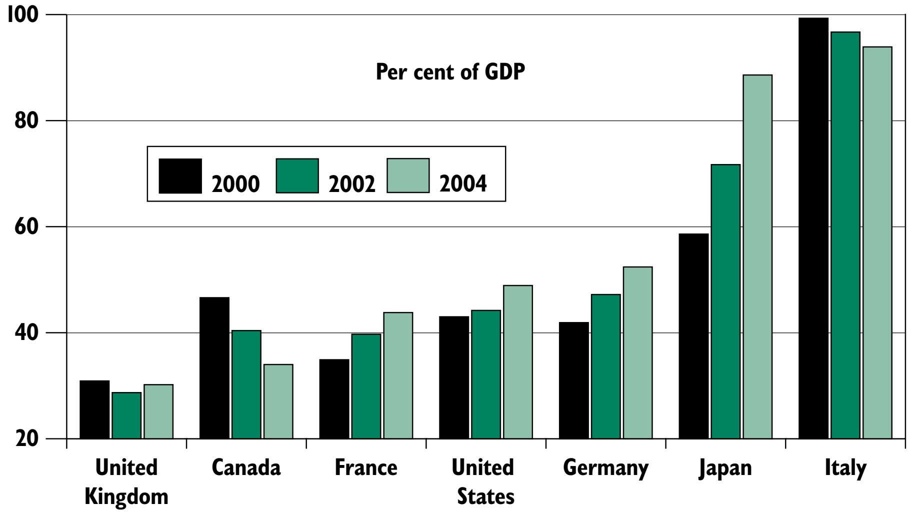
Sustainable investment rule

2.7 The sustainable investment rule requires public sector net debt as a proportion of GDP to be held at a stable and prudent level over the economic cycle. To meet the sustainable investment rule with confidence, net debt will be maintained below 40 per cent of GDP in each and every year of the current economic cycle. Table 2.1 shows net debt has been comfortably below 40 per cent and despite global economic weakness rose only modestly between 2001-02 and 2002-03. It also shows core debt, which excludes the estimated impact of the economic cycle on net debt.[1]

[1] An explanation of core debt can be found in *Core debt: an approach to monitoring the sustainable investment rule*, HM Treasury (April 2002).

2.8 Chart 2.1 shows that the recent global economic slowdown has had a significant impact on public finances throughout the world and many of the G7 economies have experienced rising debt-to-GDP ratios since 2000, and are expected to see further rises in the coming years. While debt in the UK is forecast to rise modestly, the UK has the lowest debt-to-GDP ratio in the G7.

Chart 2.1: Estimates of net debt in G7 countries



Source: OECD Economic Outlook June 2003.

Economic impact

2.9 While the primary objective of fiscal policy is to ensure sound public finances over the medium term, fiscal policy also plays an important role by supporting monetary policy in delivering economic stability over the cycle. The impact of fiscal policy on the economy can be assessed by examining changes in public sector net borrowing (PSNB), as shown in Table 2.2.

2.10 The overall impact of fiscal policy on the economy is made up of changes in:

- the fiscal stance: that part of the change in PSNB resulting from changes in cyclically-adjusted PSNB; and
- the automatic stabilisers: that part of the change in PSNB resulting from cyclical movements in the economy.

2.11 The Treasury's methodology for estimating the impact of the economic cycle on the public finances, described with updated analysis in Annex A, is based on the average impact of changes in the output gap on the public finances over previous cycles. To the extent that this economic cycle differs from previous ones, temporary changes in the public finances may not be fully attributed to the effects of the economic cycle.

2.12 Table 2.2 shows that fiscal policy helped to support monetary policy in both 2001-02 and 2002-03. The fiscal stance, shown by the change in the cyclically-adjusted net borrowing, eased by around 3 per cent of GDP between 1999-00 and 2002-03 as the economy moved below trend. The operation of the automatic stabilisers meant the overall fiscal impact, measured by the change in public sector net borrowing, was nearly 4 per cent of GDP. More detail on how these figures compare to the forecasts made in Budget 2001 and Budget 2002 is provided below.

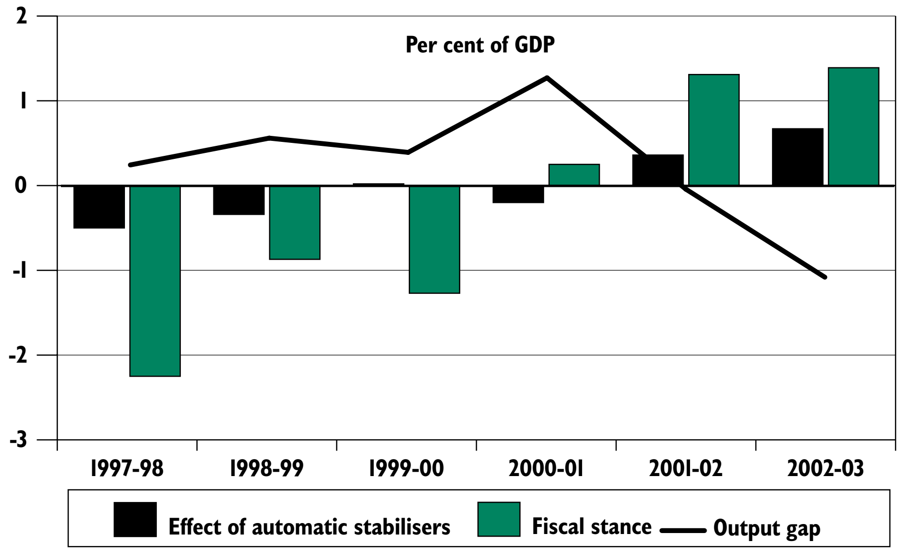
Table 2.2: Public sector net borrowing

	Per cent of GDP			
	1999-00	2000-01	2001-02	2002-03
Public sector net borrowing	–1.7	–1.6	0.1	2.1
Change in public sector net borrowing	–1.2	0.1	1.7	2.1
Cyclically-adjusted public sector net borrowing	–1.3	–0.9	0.3	1.6
Change in cyclically-adjusted net borrowing	–1.2	0.4	1.3	1.3

2.13 The impact of fiscal policy on the economy since the introduction of the new macroeconomic framework is shown in Chart 2.2 below. This shows the year on year change in the fiscal stance and automatic stabilisers, and the output gap.

2.14 The chart shows how fiscal policy supported monetary policy during the late 1990s, when the economy was above trend, as the fiscal stance tightened, supporting the automatic stabilisers. By contrast, over the two years covered by this report, that is 2001-02 and 2002-03, fiscal policy has – through both the fiscal stance and the automatic stabilisers – supported the economy as it moved below trend.

Chart 2.2: Fiscal policy supporting monetary policy



FORECAST ANALYSIS

2.15 This is the second *End of year fiscal report* and covers the years 2001-02 and 2002-03. Last year's report included information on 2000-01 and 2001-02. This showed that, in 2000-01, the outturn current surplus was larger and net borrowing lower than forecast. Data for 2001-02, however, showed a lower surplus on the current budget and higher borrowing compared to forecast. This year's report provides more definitive information on 2001-02 and provides the first analysis of 2002-03.

2.16 Table 2.3 provides a summary comparison of the year-ahead projections for main fiscal aggregates in Budget 2001 and Budget 2002 compared with the latest outturn information.

Table 2.3: Differences in Budget forecasts for main aggregates

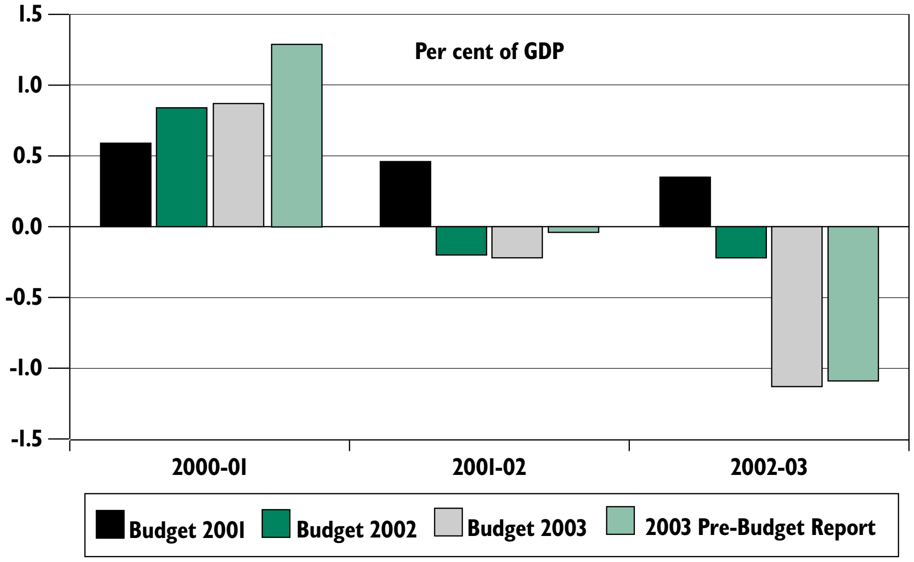
Per cent of GDP	2001-2002			2002-03		
	Budget 2001 forecast	Outturn	Difference	Budget 2002 forecast	Outturn	Difference
Surplus on current budget	1.6	0.9	–0.7	0.3	–1.1	–1.4
Cyclically-adjusted surplus on current budget	1.2	0.6	–0.6	0.5	–0.6	–1.0
Public sector net borrowing	–0.5	0.1	0.5	1.1	2.1	1.1
Cyclically-adjusted public sector net borrowing	–0.1	0.3	0.5	0.9	1.6	0.7
Memo: average absolute difference between forecast and outturn net borrowing since 1977-78			*1.0*			*1.0*
Public sector net debt	30.3	30.2	–0.1	30.2	30.9	0.8

2.17 The outturn for the current budget was a surplus of 0.9 per cent of GDP in 2001-02 and a deficit of 1.1 per cent of GDP in 2002-03 compared to forecasts of surpluses of 1.6 and 0.3 per cent of GDP respectively. The outturn for net borrowing was 0.1 per cent of GDP in 2001-02 and 2.1 per cent of GDP in 2002-03 compared to forecasts for a net repayment of 0.5 per cent of GDP in 2001-02 and net borrowing of 1.1 per cent in 2002-03. This 1.1 per cent difference between forecast and outturn is around the average difference over the last 25 years. Table 2.1 shows that, despite the impact of global economic weakness, the Government is firmly on track to meet its strict fiscal rules over this economic cycle.

2.18 Short-term economic prospects have a significant influence on the public finances and differences between forecast and outturn for key economic variables account for a large proportion of the differences in the fiscal projections. In particular, the public finances are strongly related to the economy's position in the economic cycle, usually measured by the output gap. Any difference between forecast and outturn for the output gap therefore affects the public finances.

2.19 Chart 2.3 below shows the output gap over the period from 2000-01 to 2002-03, comparing the forecasts in Budget 2001 and Budget 2002 with the estimates shown in Budget 2003 and the 2003 Pre-Budget Report. The year-ahead forecast for the output gap for both 2001-02 and 2002-03 were both higher than outturn. The Budget 2001 forecast for 2001-02 suggested the economy would remain above trend, while the latest data suggests the economy actually moved below trend during a period of global economic uncertainty. The Budget 2002 forecast for 2002-03 understated the extent to which the economy would move below trend, reflecting the impact of significant global uncertainties in autumn 2002 and spring 2003.

Chart 2.3: Estimated and projected output gaps



2.20 Table 2.3 also shows that for 2001-02 and 2002-03, there was a easing of the fiscal stance compared to the forecasts in Budget 2001 and Budget 2002. The outturn for cyclically-adjusted net borrowing was 0.3 per cent of GDP for 2001-02 and 1.6 per cent for 2002-03 compared to forecasts of a repayment of 0.1 per cent of GDP in Budget 2001 and borrowing of 0.9 per cent in Budget 2002 respectively. The larger difference between outturn and forecast for non-cyclically adjusted borrowing, of 1.1 per cent in 2002-03, suggests that the automatic stabilisers operated to a greater extent than forecast in Budget 2002, consistent with the unexpected change in the output gap.

Box 2.1: Revisions in the National Accounts

Blue Book 2003 National Accounts data, published by the Office for National Statistics in September 2003, incorporated both new information and a number of methodological changes, including the move to annual chain-linking. This resulted in revisions to estimates of Gross Domestic Product (GDP) volumes over the recent past.

As described in Annex A, forecasts of the public finances reflect a 'bottom up' approach, with output from the Treasury's economic forecast forming part of the input for individual models of specific tax and spending components. It is the difference between the Treasury economic forecast and outturn economic data that is used to calculate how much of the difference between forecast and outturn for the public finances can be ascribed to 'economic determinants'. This report uses the revised data on GDP and its components to calculate the proportion of the difference that can be ascribed to 'economic determinants' for 2001-02 and 2002-03.

This is the first *End of year fiscal report* since Blue Book 2003 was published. In last year's *End of year fiscal report* the disaggregation of the reason for difference for 2000-01 was based on data prior to these revisions. To ensure that a consistent time series of data is available, this report includes a revised break-down of the reasons for difference for the main fiscal aggregates using Blue Book 2003 data. This analysis is presented, alongside data for 2001-02 and 2002-03, in Table 2.5 below.

2.21 Table 2.4 provides more detailed information on the sources of difference. In 2001-02, receipts were £8.4 billion less than forecast, and in 2002-03 they were £10.6 billion lower. This is consistent with the average absolute error in forecasting current receipts over the last five years. Outturn current expenditure in 2001-02 was broadly in line with forecast, though outturn depreciation was £1.7 billion less than forecast. In 2002-03, the outturn for current expenditure was £4.1 billion above forecast while the outturn for depreciation was close to forecast. The 2001-02 difference between forecast and outturn for current expenditure was well below the average over the last five years, while the 2002-03 difference was above average.

2.22 Net borrowing is equal to net investment less the surplus on the current budget. Outturn net investment was below forecast by £1.6 billion in 2001-02 and by £3.7 billion in 2002-03. This means that the differences between outturn and forecast for net borrowing of £5.4 billion in 2001-02 and £11.3 billion in 2002-03 are smaller than the difference for the current budget of £7 billion in 2001-02 and £15 billion in 2002-03. The differences between forecast and outturn for net borrowing in these two years were both consistent with the average absolute difference over the last 25 years.

Table 2.4: Summary of differences in Budget forecasts

£ billion	2001-2002			2002-03		
	Budget 2001			Budget 2002		
	Forecast	Outturn	Difference	Forecast	Outturn	Difference
Current Budget						
Current receipts	398.4	390.0	–8.4	407.2	396.5	–10.6
Memo: average absolute difference in current receipts since 1998-99[1]			*9.0*			*9.0*
Current expenditure	367.0	367.4	0.4	389.9	394.0	4.1
Memo: average absolute difference in current expenditure since 1998-99[1]			*2.0*			*2.0*
Depreciation	15.5	13.8	–1.7	14.0	14.4	0.3
Surplus on Current Budget	15.9	8.8	–7.0	3.2	–11.8	–15.0
Capital budget						
Gross investment	30.4	27.6	–2.8	32.2	29.7	–2.5
Less asset sales	–3.8	–4.3	–0.6	–3.8	–4.7	–0.9
Less depreciation	–15.5	–13.8	1.7	–14.0	–14.4	–0.3
Net investment	11.2	9.5	–1.6	14.4	10.7	–3.7
Public sector net borrowing	–4.7	0.7	5.4	11.2	22.5	11.3
Memo: average absolute difference in net borrowing since 1977-78[1]			*10.0*			*11.0*
Public sector net debt	307.0	311.2	4.2	325.8	334.1	8.3
Memo						
Treaty deficit[2]	–5.1	0.3	5.5	10.0	21.8	11.8
Treaty debt[3]	372.3	381.2	8.8	388.1	399.8	11.7

[1] *Derived from absolute average difference expressed as per cent of GDP and scaled up by money GDP in that year.*

[2] *General government net borrowing on a Maastrict basis.*

[3] *General government gross debt on a Maastrict basis.*

2.23 Table 2.5 breaks down the differences between Budget forecast and outturn for the surplus on the current budget and net borrowing into the four categories described in Chapter 1. Table 2.5 also includes a revised analysis for 2000-01, taking into account the revisions to the National Accounts described in Box 2.1.

Table 2.5: Breakdown of differences in the main fiscal aggregates[1]

	£ billion		
	Budget 2000 forecast for 2000-01	Budget 2001 forecast for 2001-02	Budget 2002 forecast for 2002-03
Current receipts difference	**6.8**	**–8.4**	**–10.6**
contribution from:			
Economic determinants	2.6	–2.1	–2.9
NAO audited assumptions	–0.5	–0.8	–0.2
Fiscal forecasting differences	6.2	–4.6	–6.2
Other	–1.4	–0.9	–1.3
Current spending difference	**0.6**	**0.4**	**4.1**
contribution from			
Economic determinants	–0.2	–0.2	–0.3
NAO audited assumptions	–1.2	–0.8	–0.6
Fiscal forecasting differences	2.9	2.3	7.2
Other	–0.9	–1.0	–2.2
Depreciation	**–1.3**	**–1.7**	**0.3**
contribution from:			
Economic determinants	0.0	0.0	0.0
NAO assumptions	0.0	0.0	0.0
Fiscal forecasting differences	–1.3	–1.7	0.3
Other	0.0	0.0	0.0
Current budget difference	**7.5**	**–7.0**	**–15.0**
contribution from			
Economic determinants	2.8	–1.9	–2.6
NAO audited assumptions	0.6	–0.1	0.4
Fiscal forecasting differences	4.6	–5.2	–13.7
Other	–0.5	0.1	0.9
Net investment difference	**–3.2**	**–1.6**	**–3.7**
contribution from:			
Economic determinants	0.0	0.0	0.0
NAO audited assumptions	0.0	0.0	0.0
Fiscal forecasting differences	–2.9	–0.7	–3.6
Other	–0.3	–1.0	–0.1
Net borrowing difference	**–10.7**	**5.4**	**11.3**
contribution from:			
Economic determinants	–2.8	1.9	2.6
NAO audited assumptions	–0.6	0.1	–0.4
Fiscal forecasting differences	–7.4	4.5	10.1
Other	0.2	–1.1	–1.1

[1] *Contributions may not sum due to rounding.*

2.24 In both 2001-02 and 2002-03, the difference between forecast and outturn for receipts, and for the current budget and net borrowing was primarily due to economic determinants and fiscal forecasting differences. More detail on receipts, and in particular on income tax and the effect of companies' profitability on corporation tax receipts can be found in Chapter 3.

Historical forecasting performance

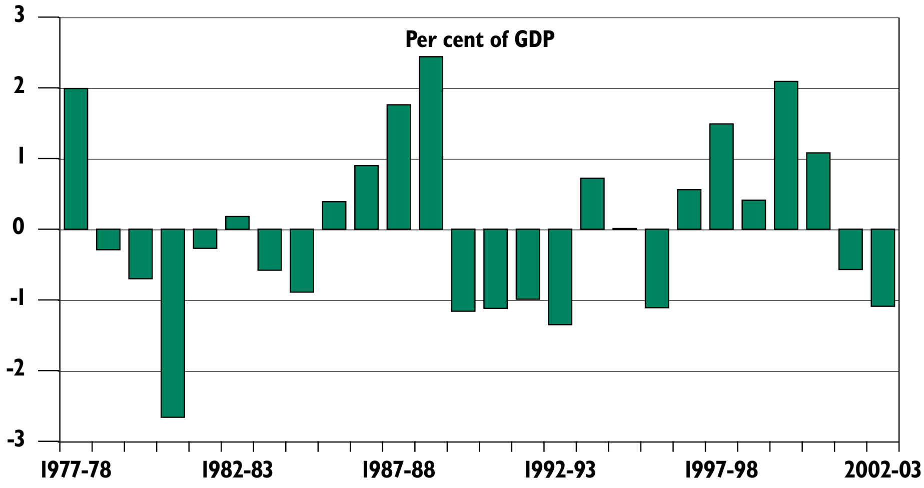
2.25 Projections for the public finances are subject to a considerable degree of uncertainty. This section considers the overall forecasting performance for public sector net borrowing since 1977-78.

Year-ahead forecasts

2.26 The difference between forecast and outturn on the year-ahead projection for public sector net borrowing since 1977-78 is shown in Chart 2.4. A positive number indicates outturn borrowing lower than forecast, and a negative number denotes outturn net borrowing higher than forecast. The average absolute difference over the period 1977-78 to 2002-03 was a little over 1 per cent of GDP.

2.27 The overall accuracy of year-ahead forecasting has been unchanged since the introduction of the new fiscal policy framework from 1997, while on average outturn net borrowing has been lower than forecast. Table 2.6 below shows that the average absolute year-ahead difference has remained broadly constant. It also shows that the average difference has been 0.6 per cent under the new framework compared to –0.1 per cent before. This suggests that, on average, outturns have tended to be better than year-ahead forecasts under the new framework, while before the new framework, outturns tended to be slightly worse than forecast. As the public finance projections are now underpinned by cautious, audited assumptions, it is not surprising that forecasts under the new framework have tended to over-estimate the level of net borrowing.

Chart 2.4: Year-ahead forecast differences



Note: Year ahead differences on public sector net borrowing: a positive number indicates outturn surplus higher or borrowing lower than forecast

Table 2.6: Year-ahead differences

	Per cent of GDP	
	Before new framework (1977-78 to 1996-97)	New framework (1997-98 to 2002-03)
Average absolute difference	1.0	1.1
Average difference	–0.1	0.6

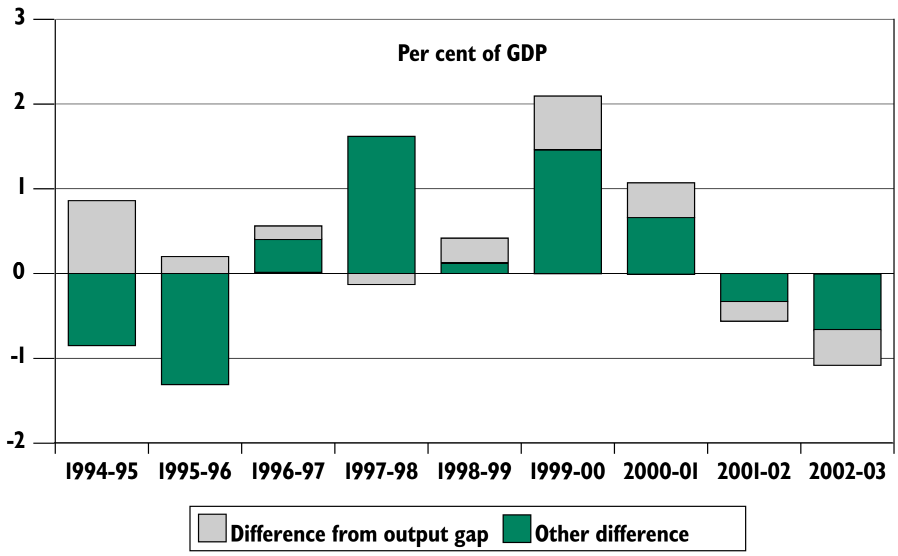
2.28 It is also possible to disaggregate the overall difference between forecast and outturn for public sector net borrowing into that:

- arising from differences between forecast and outturn for the output gap (those differences arising from misjudgements about the level of GDP relative to its trend level); and
- the remainder, which can be ascribed to structural differences not related to the variation between forecast and outturn for the output gap.

2.29 The element that can be ascribed to differences in the output gap is calculated by applying the coefficients describing the sensitivity of the public finances to the output gap to the variation between the forecast output gap and the latest estimate. The remaining difference is then determined to be structural. As noted above, the Treasury's approach to estimating the impact of the economic cycle on the public finances uses historical data. To the extent to which one particular economic cycle differs from the average, temporary changes in the public finances may not be fully ascribed to the economic cycle.

2.30 Chart 2.5 shows the disaggregation of year-ahead differences between forecast and outturn. Information on the projected output gap is only available from 1994-95 onwards so the disaggregation is only possible for the period 1994-95 to 2002-03.

Chart 2.5: Disaggregation of year-ahead differences

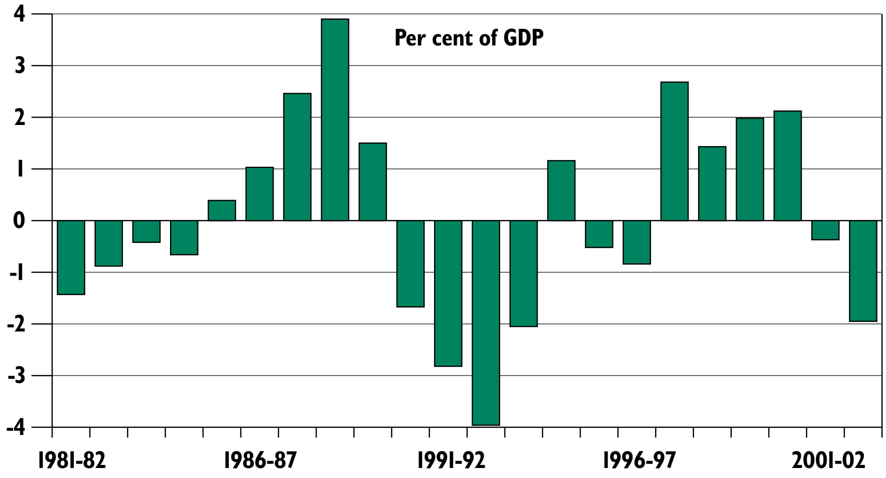


Note: Year ahead differences on public sector net borrowing: a positive number indicates outturn surplus higher or borrowing lower than forecast.

Two year-ahead forecasts

2.31 It is also possible to examine the differences between forecast and outturn for two year-ahead forecasts. There is less data available than for the year-ahead differences and Chart 2.6 below shows the difference between the two year-ahead forecast and outturn from 1981-82 to 2002-03[2].

Chart 2.6: Two year-ahead forecast differences



Two year ahead differences on public sector net borrowing: a positive number indicates outturn surplus higher or borrowing lower than forecast.

2.32 The average absolute two year-ahead difference over this period was 1.7 per cent of GDP. Table 2.7 shows the position before and after the introduction of the new framework. As with the one year-ahead forecast, the average absolute difference is broadly constant while the average difference has moved from negative to positive. This suggests that under the new framework, outturns tend to be better than two year-ahead forecasts, while before they tended to be slightly worse than forecast.

Table 2.7: Two year-ahead differences

	Per cent of GDP	
	Before new framework (1981-82 to 1997-98)	New framework (1998-99 to 2002-03)
Average absolute difference	1.7	1.6
Average difference	–0.1	0.6

[2] The 2002-03 figure refers to the difference between the forecast for 2002-03 made in spring (Budget) 2001 and the latest outturn data, the 2001-02 figure refers to the forecast made in spring 2000, and so on.

International comparisons

2.33 The section below compares the UK's forecasting performance with that of other countries and international organisations. International comparisons need, however, to be treated with caution as the forecast period and the fiscal aggregate will often differ. In addition, different institutions may make different policy assumptions, for example 'constant policies' or 'most likely policy', reflecting the purpose of the projections or role of the forecasting organisation.

Comparisons with the USA

2.34 In the USA, the Congressional Budget Office (CBO) produces forecasts for the public finances up to six years ahead and has data on the difference between forecast and outturn going back to 1981. To help ensure comparability across countries that have different revenues and expenditure as a proportion of GDP, the differences between forecast and outturn are expressed as a proportion of total revenues.

2.35 Table 2.8 compares the average absolute differences between forecast and outturn for the UK and the USA. It suggests that the UK's forecasting performance is similar to that of the in the USA. The absolute average year-ahead difference is 3 per cent of revenues in the USA compared to 2.6 per cent in the UK[3]. The absolute average difference for the two, three and four year-ahead forecast are slightly smaller in the UK compared to the USA. However, the analysis for the UK for three and four year-ahead forecasts need to be treated with caution as there are a number of years for which data is not available.

Table 2.8: Absolute average difference between forecast and outturn

	Per cent of outturn revenues					
	Year ahead	2 years ahead	3 years ahead	4 years ahead	5 years ahead	6 years ahead
USA, Congresional Budget Office	3.0	5.9	8.6	10.3	12.6	15.1
UK, HM Treasury	2.6	4.2	5.6	7.9		

Note: data for USA is from 1981 onwards (1982 excluded) and refers to the primary balance, data for UK is from 1977-78 onwards for 1 year forecast, 1981-82 onwards for 2 year forecast, 1982-83 onwards excluding 1996-97 to 1999-2000 for 3 year forecast and 1983-84 onwards excluding 1984-85 to 1986-87 and 1997-98 to 2000-01 for 4 year forecast, and refers to PSNB or PSBR.

Source: US data from The Uncertainty of Budget Projections: A Discussion of Data and Methods, CBO April 2003 (http://www.cbo.gov/showdoc.cfm?index=4195&sequence=0).

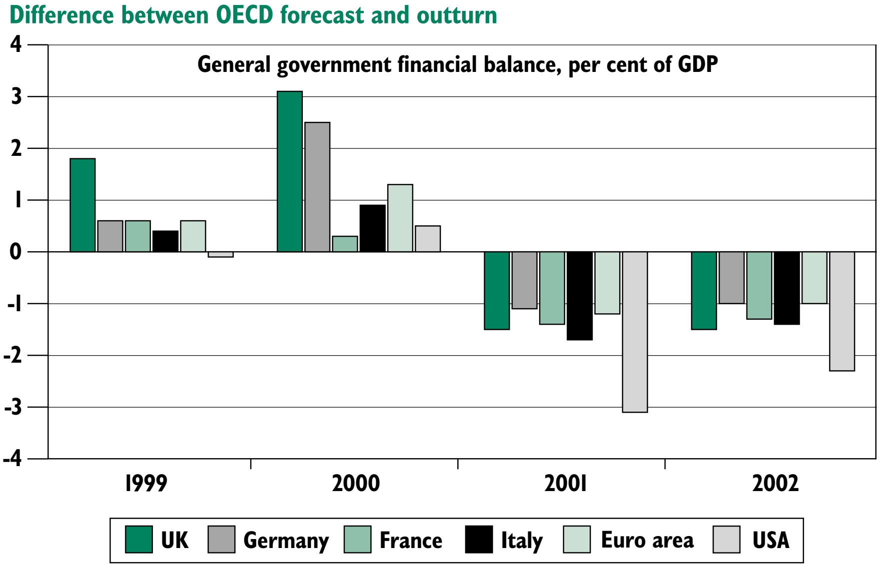
2.36 This analysis also shows the intrinsic uncertainty in forecasts of the public finances. The average absolute difference between forecast and outturn for the six year ahead forecast in the USA is around 15 per cent of revenues.

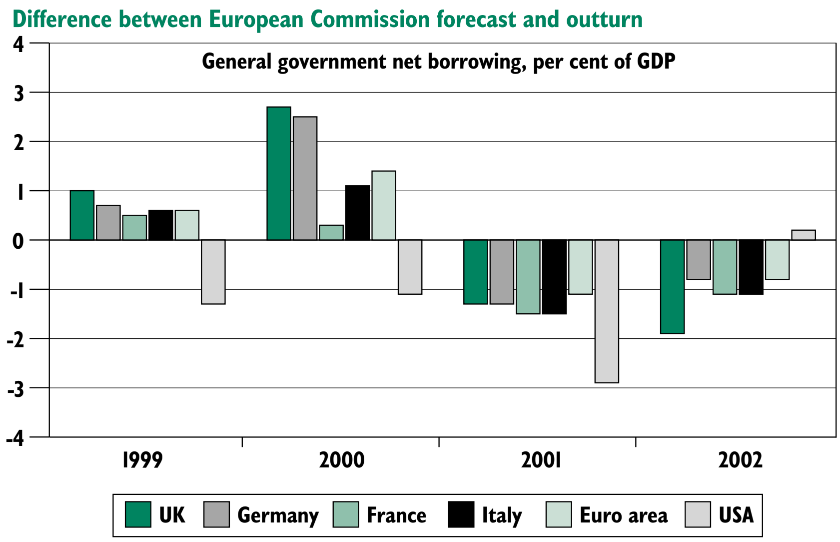
Comparisons with international organisations

2.37 Chart 2.7 below shows the difference between forecast and outturn for year-ahead forecasts produced by the OECD and the European Commission. For the UK, these charts show a similar pattern to the Treasury's own forecast, with borrowing lower than forecast in 1999 and 2000 and higher than forecast in 2001 and 2002. The absolute difference between forecast and outturn for 2001 and 2002 averaged 1.5 per cent of GDP for the OECD and 1.6 per cent of GDP for the European Commission. This is above the 0.9 per cent of GDP average absolute difference for the Treasury over the years 2001-02 and 2002-03, and highlights the impact of global economic uncertanties on fiscal forecasts across the major economies.

[3] This probably understates the relative forecasting performance of the UK as the typical year-ahead forecast in the USA is for the financial year ending 9 months after the forecast is made, while the typical year-ahead forecast in the UK is for the financial year ending 12 months after the forecast is made.

Chart 2.7: Forecast differences for the OECD and European Commission





OECD data compiled from OECD Economic Outlook from the December of the previous year and latest estimate of outturn data shown in OECD Economic Outlook November 2003. European Commission data compiled from autumn forecasts from previous year and latest estimate of outturn data shown in the Autumn 2003 forecast.

Comparisons with other Member States

2.38 Recent analysis by Strauch, Hallerberg and von Hagen[4] has compared the forecasting performance of individual countries in the European Union. This used the year-ahead projections set down in Members States' annual Convergence and Stability Programmes. Table 2.9 below shows the performance of the UK and other Member States over the period 1998 to 2002. The average absolute difference for the UK is close to the mean for all fifteen countries. However, the average difference is positive for the UK suggesting that outturns have tended to be better than the UK's forecasts, while a number of countries have a negative absolute difference, suggesting outturns have tended to be worse than forecast.

Table 2.9: Differences between forecast and outturn, 1998 to 2002

	Per cent of GDP	
	Absolute average difference	**Average difference**
Portugal	1.51	–1.50
Greece	1.17	–1.06
Germany	1.10	–0.80
Italy	0.94	–0.72
France	0.72	–0.60
Ireland	1.60	–0.56
Denmark	0.35	0.10
Belgium	0.28	0.19
Netherlands	1.03	0.22
Austria	0.67	0.28
Sweden	0.89	0.35
Spain	0.81	0.58
UK	**0.98**	**0.68**
Finland	1.33	0.91
Luxembourg	1.61	0.97

Note: differences refer to general government net borrowing. Projections stem from stability and convergence programmes. European Commission AMECO data are used for actual budgetary outcome.
Source: The Track Record of Stability and Convergence Programmes, Strauch, Hallerberg and von Hagen, October 2003, Table 5.

[4] *The Track Record of Stability and Convergence Programmes*, Strauch, Hallerberg and von Hagen presented at the centrA workshop on 'Monitoring and Forecasting Public Finances', Seville, October 2003. The paper provides the initial results of an ongoing research project.

3 Receipts

This chapter provides more detailed analysis of developments in receipts in 2001-02 and 2002-03. It shows that:

- **current receipts rose from £390 billion in 2001-02 to around £397 billion in 2002-03, providing resources for the Government's priorities and ensuring that the Government remained on track to meet its firm fiscal rules; and**
- **in both years receipts were lower than originally forecast, largely reflecting lower than expected growth in tax determinants, particularly company profits. In both cases the differences between forecast and outturn of receipts were between 2 and 3 per cent.**

Sound public finances and the use of cautious assumptions has meant, even though receipts have been lower than expected, the Government is still on track to meet its fiscal rules, while allowing fiscal policy to support monetary policy in maintaining economic stability.

INTRODUCTION

3.1 This chapter provides more detailed analysis of developments in current receipts and, in particular, the forecasts in Budget 2001 and Budget 2002. It analyses the overall forecasting differences, both in actual and cyclically-adjusted terms, before looking in detail at each of the main taxes.

Overall receipts and forecasting differences

3.2 Table 3.1 shows the differences between the year-ahead forecasts of and outturn for receipts for Budget 2001 and Budget 2002. Current receipts were £390.0 billion in 2001-02, and rose to £396.5 billion in 2002-03. As a share of national income, receipts fell from 38.8 per cent of GDP to 37.6 per cent.

3.3 Current receipts were around £8 billion and £11 billion lower than forecast in 2001-02 and 2002-03, respectively. Tables 3.2 and 3.3 show that these differences were largely the result of lower than expected income tax and corporation tax receipts.

Table 3.1: Summary of differences in Budget receipts forecasts

	Forecast	Outturn	Difference
Budget 2001 forecast of 2001-02			
Current receipts (£ billion)	398.4	390.0	–8.4
Current receipts (per cent of GDP)	40.2	38.8	–1.5
Cyclically-adjusted current receipts (per cent of GDP)	40.1	38.6	–1.5
Budget 2002 forecast of 2002-03			
Current receipts (£ billion)	407.2	396.5	–10.6
Current receipts (per cent of GDP)	38.7	37.6	–1.2
Cyclically-adjusted current receipts (per cent of GDP)	38.8	37.7	–1.1

3.4 To focus on underlying or structural trends in receipts, the Government also produces estimates of cyclically-adjusted fiscal aggregates (see Tables 2.2 and 2.3). These remove the estimated effect of the economic cycle on public sector spending and receipts. The estimates of cyclically-adjusted current receipts shown in Table 3.1 are based on the methodology described in Annex A.

3.5 This approach may understate the effects of the economic cycle on the public finances to the extent that one cycle differs from another. In addition, if the output gap does not fully capture the main drivers of receipts, such as the large falls in equity prices seen in the recent past (discussed in Box 3.1), the cyclically-adjusted aggregates will need to be interpreted with care.

TAX FORECASTING AND REASONS FOR DIFFERENCES

Tax forecasts and economic determinants

3.6 Chapter 1 explained that differences between forecast and outturn can be split into several categories:

- **economic determinants:** tax revenues, or more specifically tax bases (the income, transactions or assets on which the taxes are charged) are largely related to particular macroeconomic variables forecast by the Treasury. For example, income tax receipts are heavily dependent on levels of wages and salaries, and VAT receipts on consumers' expenditure. Any difference between the forecasts of these economic determinants used in the original tax forecasts and their eventual outturn values will partly explain differences between forecast and outturn tax receipts;

- **audited assumptions:** many of the economic determinants described above are calculated using assumptions that are audited by the National Audit Office (NAO), ensuring that they remain both reasonable and cautious. The direct impacts of differences in the forecasts of these determinants with their outturn on the tax forecasts can be separately identified. This includes the impact of using a trend growth assumption that is one quarter of a percentage point below the Treasury's neutral view. These estimates will not include the second round effects of these audited assumptions, for example, the impact the interest rate assumption has on receipts through its impact on the RPI;

- **fiscal forecasting differences:** in some cases, forecasts of the relevant economic variables for the tax base are not produced by the Treasury, and more aggregated economic variables have to be used. For example, the Treasury does not forecast consumers' expenditure on beer, which would be used to forecast beer duty receipts. In these cases, 'fiscal forecasting models' are used to estimate the relationship between the most relevant macroeconomic variable (total consumers' expenditure in the case of beer) and the corresponding tax base. These models are also used to estimate actual tax receipts. Any differences in tax receipts resulting from unexpected changes in the relationship between main economic determinants, tax rates and revenues, as contained in the fiscal models, are therefore defined as fiscal forecasting differences. For example, if income tax receipts turned out to be higher than forecast even after taking account of differences in the eventual level of wages and salaries, then there is a fiscal forecasting difference;

- **other:** differences in the economic determinants and the fiscal forecasting models are not the only potential source of forecasting errors. Other factors include changes in definitions of taxes or the impact of tax measures announced after the publication of the forecast that have an effect on receipts in that year.

TAX BY TAX FORECASTING DIFFERENCES

3.7 Tables 3.2 and 3.3 use this breakdown of forecasting differences for the Budget 2001 and Budget 2002 year-ahead forecasts for each of the main taxes. These tables also group the taxes to show the same breakdown for Inland Revenue receipts, HM Customs and Excise receipts, net taxes and social security contributions, and current receipts.

Tax by tax analysis

Income tax

3.8 Gross income tax receipts in 2001-02 were £110.2 billion, £1.3 billion lower than forecast in Budget 2001. This was despite much stronger than expected growth in the economic determinant that is used to forecast self-assessment tax receipts from self-employment income, and a much smaller than expected fall in the determinant used to project dividend income, which should have increased receipts by around £0.6 billion (as shown in the determinant differences column in Table 3.2). However, indications are that actual taxable dividends did not change in line with the relevant determinant, and this is reflected in the fiscal forecasting difference. As a result, the income tax model has been revised so that a more appropriate determinant is used.

3.9 The remaining fiscal forecasting difference mainly reflects lower than expected bonuses[1], partly offset by a difference between forecast and actual taxable interest rates, and in the costing of a company income tax measure. The lower bonuses were largely a result of the adverse impact of the global economic slowdown and depressed equity markets on the financial sector. Repayments on personal and stakeholder pensions, where changes in gross to net repayments for the self-employed were not fully taken account of in the forecast, contributes £0.3 billion to the fiscal forecasting difference.

3.10 Income tax receipts in 2002-03 were £4.9 billion lower than their Budget 2002 forecast levels. Differences in forecasts of determinants caused £0.8 billion of the shortfall and this was mainly due to lower than expected growth in wages and salaries. Revisions to the UK National Accounts have increased the level of wages and salaries in 2002-03, suggesting a lower ratio of income tax receipts to National Accounts wages and salaries. The lower wages and salaries growth was partly offset by higher self-employment income.

3.11 The remaining difference is attributable to fiscal forecasting differences of £4.1 billion. This was once again due to lower than expected bonuses going to higher rate taxpayers, resulting from the impact of the global economic slowdown and depressed equity markets on the financial sector, and lower than expected self-assessment tax receipts.

Income tax credits

3.12 The £5.0 billion difference between the Budget 2001 forecast of income tax credits and the eventual outturn is almost entirely due to the changes in classification of tax credits as used in the calculation of net taxes and social security contributions. The original forecast classified all of the Working Families' Tax Credit (WFTC) as negative tax, whereas current estimates only score that amount that offsets income tax liability, in line with internationally agreed definitions. However, this has no impact on public sector receipts which are measured on a National Accounts basis and gross of all WFTC and Disabled Person's Tax Credit (DPTC). This is reflected in the equal and opposite adjustment to receipts in the tax credits adjustment line in Table 3.2.

[1] A full explanation of the income tax forecasting methodology, including trends in bonus payments, was given in Box 3.1 of the *2002 End of Year Fiscal Report*.

3.13 The £0.5 billion difference in tax credits in 2002-03 is largely due to a £0.5 billion difference in disaggregating WFTC and DPTC between their negative tax and public expenditure elements. Again this has no impact on the total level of public sector receipts as there is an equal and opposite adjustment within Table 3.3 to the National Accounts tax credits line.

Table 3.2: Breakdown of Budget 2001 forecasting differences of receipts for 2001-02

				£ billion			
	Forecast	Outturn	Difference	of which:			
				Economic determinants	Assumptions audited by the NAO	Fiscal forecasting differences	Other factors
Inland Revenue							
Income tax (gross of tax credits)	111.5	110.2	–1.3	0.6	0.2	–2.0	0.0
Income tax credits[1]	–7.2	–2.3	5.0	0.0	0.0	0.0	4.9
Corporation tax[2]	37.6	32.0	–5.6	–3.7	–0.4	–1.6	0.0
Petroleum revenue tax	1.6	1.3	–0.3	–0.4	0.1	0.1	0.0
Capital gains tax	2.5	3.1	0.5	0.1	–0.1	0.4	0.1
Inheritance tax	2.3	2.4	0.1	0.0	–0.1	0.2	0.0
Stamp duties	8.0	7.0	–1.0	0.8	–0.4	–1.5	0.0
Social security contributions	62.6	63.2	0.5	–0.1	0.1	0.5	0.0
Total Inland Revenue	**219.0**	**216.9**	**–2.1**	**–2.6**	**–0.6**	**–4.0**	**5.1**
Customs and Excise							
Value added tax	61.3	61.0	–0.3	0.2	0.0	–0.5	0.0
Fuel duties	22.5	21.9	–0.6	0.5	–0.3	–0.5	–0.3
Tobacco duties	7.6	7.8	0.2	0.0	0.1	0.0	0.0
Alcohol duties	6.8	7.0	0.2	0.1	0.0	0.1	0.0
Other Customs and Excise	7.7	7.2	–0.5	0.0	0.0	–0.5	0.0
Total Customs and Excise	**105.9**	**104.9**	**–1.0**	**0.8**	**–0.1**	**–1.4**	**–0.3**
Vehicle excise duties	4.5	4.2	–0.3	0.0	0.0	–0.2	0.0
Oil royalties	0.6	0.5	0.0	–0.1	0.0	0.0	0.0
Business rates	17.5	17.9	0.4	0.0	0.0	0.4	0.0
Council tax	14.7	15.3	0.6	0.0	0.0	0.6	0.0
Other taxes and royalties[3,4]	9.5	9.9	0.4	0.0	0.0	0.6	–0.2
Net taxes and social security contributions	**371.6**	**369.6**	**–2.0**	**–1.8**	**–0.8**	**–4.0**	**4.6**
Accruals adjustment on taxes	1.7	0.4	–1.4	–0.1	–0.1	–1.2	0.0
less VAT and own resources EC contributions	–5.9	–5.6	0.3	–0.1	0.0	0.4	0.0
less PC onshore CT payments	–0.2	–0.1	0.1	0.0	0.0	0.1	0.0
Tax credits adjustment[5]	5.8	0.9	–4.9	0.0	0.0	0.1	–5.0
Interest & dividends	4.8	4.7	–0.1	0.0	0.0	–0.1	0.0
Other receipts[3]	20.5	20.2	–0.3	0.0	0.0	0.2	–0.5
Current receipts	**398.4**	**390.0**	**–8.4**	**–2.1**	**–0.8**	**–4.6**	**–0.9**

[1] The Budget 2001 forecast of income tax credits classified all of the Working Families' Tax Credit as negative tax, whereas current estimates only score that amount that offsets income tax liability, in line with internationally agreed definitions.

[2] Net of negative tax tax credits.

[3] In September 2001, there was a change in the classification of ITC franchise payments. They used to score in taxes on production, in 'other taxes and royalties', but now score as gross operating surplus and rent, in 'other receipts'.

[4] This line includes levy funded bodies' receipts in outturn but not forecast values. This is because of a reclassification in the National Accounts. Levy funded bodies' receipts and expenditure are now published as gross figures in the National Accounts, whereas expenditure used to be published net of receipts.

[5] Tax credits that are classified as expenditure in the National Accounts but negative taxation in the calculation of net taxes and social security contributions above.

Table 3.3: Breakdown of Budget 2002 forecasting differences of receipts for 2002-03

	Forecast	Outturn	Difference	£ billion of which: Economic determinants	Assumptions audited by the NAO	Fiscal forecasting differences	Other factors
Inland Revenue							
Income tax (gross of tax credits)	117.5	112.6	–4.9	–0.8	0.1	–4.1	–0.1
Income tax credits[1]	–3.6	–3.1	0.5	0.0	0.0	0.5	0.0
Corporation tax[2]	32.9	29.3	–3.5	–2.7	0.1	–1.0	0.1
Petroleum revenue tax	1.4	1.0	–0.4	–0.2	0.3	–0.4	0.0
Capital gains tax	1.8	1.6	–0.2	0.0	0.0	–0.1	–0.1
Inheritance tax	2.5	2.4	–0.1	0.1	–0.1	–0.1	0.0
Stamp duties	8.2	7.5	–0.7	1.2	–0.6	–1.2	0.0
Social security contributions	65.0	64.7	–0.3	–0.9	0.1	0.5	0.0
Total Inland Revenue	**225.6**	**216.0**	**–9.6**	**–3.3**	**–0.3**	**–6.0**	**–0.1**
Customs and Excise							
Value added tax	63.9	63.5	–0.4	–0.2	–0.2	0.0	0.0
Fuel duties	23.1	22.1	–0.9	0.3	–0.2	–0.8	–0.2
Tobacco duties	7.7	8.1	0.3	0.0	0.5	–0.1	0.0
Alcohol duties	7.3	7.3	0.0	0.1	0.0	0.0	0.0
Other Customs and Excise	7.7	7.8	0.0	0.0	0.0	0.0	0.0
Total Customs and Excise	**109.7**	**108.7**	**–0.9**	**0.1**	**0.1**	**–0.9**	**–0.2**
Vehicle excise duties	4.5	4.6	0.1	0.0	0.0	0.1	0.0
Oil royalties	0.5	0.4	–0.1	–0.1	0.1	–0.1	0.0
Business rates	18.5	18.5	–0.1	0.0	0.0	–0.1	0.0
Council tax	16.1	16.7	0.6	0.0	0.0	0.6	0.0
Other taxes and royalties	10.7	10.9	0.2	0.0	0.0	0.2	0.0
Net taxes and social security contributions	**385.6**	**375.8**	**–9.8**	**–3.2**	**–0.1**	**–6.2**	**–0.3**
Accruals adjustment on taxes	0.8	–0.1	–1.0	–0.2	–0.2	–0.6	0.0
less VAT and own resources EC contributions	–5.4	–4.4	1.0	0.5	0.0	0.5	0.0
less PC onshore CT payments	–0.2	–0.1	0.1	0.0	0.0	0.1	0.0
Tax credits adjustment[3]	1.6	1.1	–0.5	0.0	0.0	–0.4	–0.1
Interest & dividends	4.2	4.5	0.3	0.0	0.0	0.3	0.0
Other receipts	20.6	19.8	–0.8	0.0	0.0	0.1	–0.9
Current receipts	**407.2**	**396.5**	**–10.6**	**–2.9**	**–0.2**	**–6.2**	**–1.3**

[1] *Both forecast and outturn only includes tax credits that offset income tax liability, in line with internationally agreed definitions.*

[2] *Net of negative tax tax credits.*

[3] *Tax credits that are classified as expenditure in the National Accounts but negative taxation in the calculation of net taxes and social security contributions.*

Corporation tax

3.14 Corporation tax receipts, which are a relatively volatile component of overall receipts, were £5.6 billion below the Budget 2001 forecast in 2001-02. This difference was largely due to lower than expected growth in company profits which reflects the impact of the global economic slowdown in 2001. The effects were particularly significant in the financial sector, where taxable profits appear to have fallen sharply as a result of weaker activity in financial markets. Merger and acquisition activity, a major driver of financial companies' fee-earning activity, was almost 75 per cent lower in 2001 than in 2000.

3.15 Corporation tax from oil companies was £0.4 billion below forecast. This was largely due to differences between DTI forecasts and outturn data on production. These differences were partly offset by higher outturn oil prices scored under assumptions audited by the NAO.

3.16 Greater than expected falls in stock market values had a major effect on the taxable profits of life assurance companies, reducing tax receipts by a further £0.5 billion from their forecast values. The direct effect of these equity price falls on life assurance company tax payments is scored under assumptions audited by the NAO. A full explanation of the impact of equity prices on all receipts is given in Box 3.1.

3.17 The remaining £1.6 billion shortfall in receipts is attributable to fiscal forecasting differences, and largely results from difficulties in interpreting data when the new corporation tax regime, which required companies to pay their corporation tax in quarterly instalments, was introduced. In 2000-01 companies tended to overpay their instalments relative to their assessments of liability resulting in repayments being made in 2001-02. This was not taken into account in the forecast and the effect scores in fiscal forecasting differences.

3.18 The forecast of corporation tax receipts in 2002-03 was £3.5 billion higher than the eventual outturn. Once again, lower than expected profits and the fiscal forecasting differences described above explain most of the shortfall in receipts. The greater than expected fall in equity prices reduced corporation tax from life assurance companies by around £0.3 billion. Corporation tax receipts from oil companies were £0.1 billion above forecast largely due to higher than expected oil prices. This effect is scored under assumptions audited by the NAO and partly offsets the negative effect of lower equity prices. The £0.1 billion scoring in 'other' factors is due to the changes in the classification of corporation tax credits. Tax credits are now scored as negative taxation to the extent that they are less than or equal to the tax liability of the company, and as public expenditure where they exceed the liability. In the forecast the entire tax credit was treated as negative tax. This change has no impact on total receipts as an equal and opposite adjustment is made in the tax credits adjustment line.

Box 3.1: Equity prices and public sector receipts

The projections for the public finances are based on the assumption that equity prices rise from their current levels in line with projected growth in money GDP. The equity price assumption has a direct impact on forecast receipts from capital gains tax, stamp duty, inheritance tax and corporation tax from life assurance companies.

In 2001-02 and 2002-03 equity prices were 15 per cent and 26 per cent below their Budget 2001 and Budget 2002 forecasts, respectively. The effect on forecast receipts can be seen in the table below, and are scored under assumptions audited by the NAO in Tables 3.2 and 3.3. In contrast to 2001-02 and 2002-03, equity prices in 2003-04 have been much higher than forecast.

Effect of differences between forecast and outturn equity prices on receipts (£ billions)

	2001-02	2002-03
Corporation tax	–0.5	–0.3
Capital gains tax[1]	–0.1	0.0
Inheritance tax	–0.1	–0.1
Stamp duties	–0.4	–0.6
Total	**–1.0**	**–1.1**

[1] In general there is a one-year lag between the realisation of gains and the payment of tax for capital gains tax. As such, year ahead forecasts of capital gains tax are generally based on equity prices in the previous year, and are not affected by errors in the forecasts of equity prices.

Petroleum revenue tax

3.19 Receipts from petroleum revenue tax in 2001-02 were below forecast by around £0.3 billion. This was due to differences between DTI forecasts and outturn data on production and is scored in determinant differences. Production for 2001 was revised downwards, particularly for oil where the reduction was nearly 10 per cent. The NAO assumption for the price of oil at the time of the Budget was $24.4 per barrel whereas the outturn price was $25.0 per barrel. This produced a small increase in yield. The fiscal forecasting differences are mainly due to differences in modelling and changes in gas prices.

3.20 In 2002-03 receipts were £0.4 billion below the Budget 2002 forecast and the £0.2 billion difference due to forecast of determinants was again due to changes in DTI data on production. The NAO assumption for the price of oil at the time of the Budget was $21.5 per barrel whereas the outturn price was $25.0 per barrel which increased receipts by around £0.3 billion. This was offset by fiscal forecasting differences of around £0.4 billion.

Capital gains tax and inheritance tax

3.21 Receipts from capital gains tax in 2001-02 were around £0.5 billion higher than forecast. The largest difference is attributable to fiscal forecasting differences (£0.4 billion) and reflects differences between the forecast levels of gains realised in that year and the outturn. These differences can arise through a number of factors such as the prices of assets subject to capital gains tax differing from the overall movement in equity prices or house prices, or from a change in the proportion of gains which are sheltered by past capital losses.

3.22 The Budget 2002 forecast of 2002-03 receipts was much closer to the outturn. The main difference is attributable to 'other' factors, notably a court case that the Inland Revenue lost that reduced receipts by £0.1 billion. Inheritance tax receipts were close to forecast for both 2001-02 and 2002-03.

Stamp duties **3.23** In 2001-02, stamp duty receipts were £1.0 billion lower than forecast. This was largely due to lower receipts from stamp duty on equity transactions, resulting from lower than projected equity prices (scored under assumptions audited by the NAO), and lower than expected mergers and acquisition activity (scored under fiscal forecasting differences). The fiscal forecasting difference also reflects difficulties in forecasting the volatile relationship between tax receipts, equity turnover and average equity prices. These factors were partly offset by higher stamp duty revenues from land and property transactions which resulted from higher house prices and volumes, scored under economic determinants. However, the increase in revenue that should have resulted from these determinants was less than expected, resulting in a fiscal forecasting difference.

3.24 In 2002-03, stamp duty receipts were £0.7 billion lower than forecast. This was once again largely due to lower receipts from stamp duty on equity transactions, almost entirely resulting from lower than projected equity prices (scored under assumptions audited by the NAO). Although house prices and volumes were much higher than expected, as reflected in the £1.2 billion determinant difference, the impact on revenues was offset by lower than expected commercial property prices (scored under fiscal forecasting differences) as the forecast then assumed that commercial prices would grow in line with residential property prices. The model has now been improved so that the commercial market is forecast separately. Another cause of the £1.2 billion fiscal forecasting difference is the fact that a single price and single volume growth series was applied to all transactions in the UK. However, house prices, in particular, have been moving at different rates in different parts of the country. The increase in house prices has been more concentrated in low price regions where the effective tax rate is lower.

Social security contributions **3.25** Receipts of social security (or national insurance) contributions in 2001-02 were £0.5 billion above the Budget 2001 forecast. Most of this difference was due to fiscal modelling differences and since the 2001 Pre-Budget Report, a more detailed methodology has been used in the preparation of these forecasts.

3.26 In 2002-03, receipts of social security contributions were £0.3 billion below the Budget 2002 forecast. The main difference was caused by lower than forecast wages and salaries, which is attributed to economic determinants. This was partly offset by higher than expected payments in arrears from the previous tax year which is reflected in the £0.5 billion fiscal forecasting differences. Forecasts of social security contributions have proved to be closer to outturn than income tax forecasts because they are less exposed to uncertainties relating to the incomes of high-earners.

Value added tax **3.27** VAT receipts in 2001-02 were £0.3 billion below the Budget 2001 forecast. This was mainly the result of the £0.5 billion difference in the estimate of receipts in 2000-01, which were used as a base when calculating the VAT forecasts for 2001-02. This amount is scored under fiscal forecasting differences (the NAO-audited assumption only applies to years after the current 'base' year). Around half of these differences were offset by higher than expected consumers' expenditure.

3.28 VAT receipts in 2002-03 were £0.4 billion below their Budget 2002 forecast. This was due to lower than expected growth in consumers' expenditure, which is scored as the effect of differences in economic determinants. In addition the ratio of underlying VAT receipts (VAT receipts adjusted for changes in the rates and coverage) to consumers' expenditure fell by more than was forecast under the NAO-audited assumption, indicating a fall in the VAT yield. Concerns about the effect of fraud on the VAT yield, prompted the Government's new VAT strategy in the 2002 Pre-Budget Report to tackle leakages of revenue in the VAT system.

Fuel duties **3.29** Receipts from fuel duties in 2001-02 were £0.6 billion below the Budget 2001 forecast. Around £0.5 billion of this difference was due to fiscal forecasting differences, though this was mitigated by higher than expected real GDP, scored under the effect of differences in economic determinants. A further £0.3 billion was as a result of the late 2002 Budget. This meant that the normal surge in receipts that occurs in March as oil retailers forestall duty increases was instead received in April, depressing 2001-02 receipts but with a corresponding positive impact on 2002-03 receipts. This is scored under other forecasting differences, as it represents a factor that could not be anticipated in Budget 2001.

3.30 In 2002-03 receipts from fuel duties were £0.9 billion below forecast. The main cause of this difference was from fiscal forecasting differences, which indicate the poor performance of the forecasting model and in this case, particularly, the petrol model. A new model has now been estimated and implemented. Oil prices turned out higher than were forecasted by the NAO-audited assumption, outturn demand and therefore fuel duty revenues were lower. The remaining £0.2 billion was caused by the late Budget.

Tobacco duties **3.31** Tobacco duties in 2001-02 were £0.2 billion above the Budget 2001 forecast. This was largely due to the NAO-audited smuggled market share assumption. The forecast assumed that the smuggled share would be 24 per cent of the total UK market, whereas the outturn share was 21 per cent. A full explanation of the impact of this assumption is given in Box 3.2.

3.32 In 2002-03 tobacco duties were £0.3 billion higher than forecast in Budget 2002. Once again this was largely because of the use of the NAO-audited assumption regarding the effects of the anti-smuggling strategy, which meant using a smuggled share of 25 per cent against an outturn of 18 per cent. The lower than forecast smuggled share increased revenues by £0.5 billion, and is scored under assumptions audited by the NAO. As a consequence of the effectiveness of the strategy, it was decided to change the tobacco assumption and the new assumption was audited by the NAO at the time of the Budget 2003.[2]

[2] Audit of Assumptions for Budget 2003, National Audit Office, April 2003 (HC 627)

Box 3.2: The impact of the audited tobacco assumption

During the late 1990s there was significant growth in the level of cigarette smuggling. By March 2000, the proportion of total cigarette consumption in the UK that was accounted for by smuggled cigarettes had grown to an estimated 18 per cent, equivalent to £2 billion in lost tax receipts. Moreover, it was estimated that if no additional action was taken, cigarette smuggling would continue to grow rapidly, accounting for a quarter of the market by 2001, and more than a third by 2003.

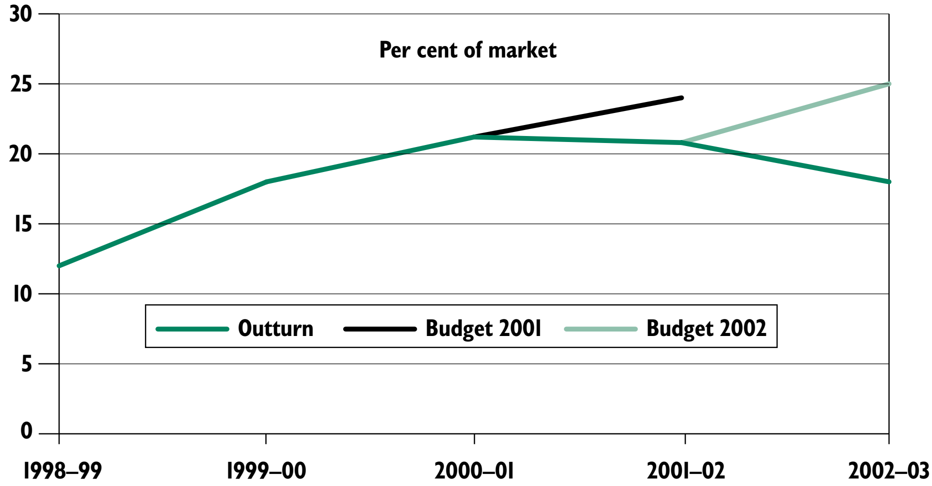
In response, in March 2000, the Government launched an anti-smuggling strategy, which was designed to slow, stop and then reduce the growth of tobacco smuggling. At the time it was not clear what the impact of the tobacco strategy would be in mitigating the trend because many of the elements were untried in a UK context. For this reason, a cautious assumption, audited by the NAO, was adopted for forecasting purposes:

- taking as a base a hypothetical assumed rise in smuggling in the absence of a strategy; and
- subtracting from this only the more certain of the expected impacts of the strategy.

As a result, the smuggled share used in the forecast was much higher than HM Customs and Excise central expectation and their PSA target.

HM Customs and Excise have now published outturn estimates for the smuggled share in 2001-02 and 2002-03. They show that the targets have been met or exceeded in each year, and that the smuggled shares have turned out to be much lower than those used in the Budget 2001 and Budget 2002 forecasts, as shown in the graph below[1].

Forecast and outturn smuggled shares



As a result of the lower than forecast smuggled shares, tobacco duty revenues have been £0.1 billion and £0.5 billion higher than forecast in 2001-02 and 2002-03 respectively.

[1] The lower than forecast smuggled shares is also a result of higher than expected levels of cross-border-shopping.

Alcohol duties **3.33** Alcohol duty receipts were £0.2 billion higher than forecast in 2001-02. This was largely a result of wine duty receipts where outturn exceeded forecast by £0.1 billion. Much of this variance was due to fiscal forecasting differences, namely the failure of the forecasting model to capture the then significant growth in demand for spirit-based coolers. Receipts for 2002-03 were very close to forecast.

Other HM Customs and Excise **3.34** The £0.5 billion shortfall in other HM Customs and Excise taxes in 2001-02 was largely a result of lower than expected revenues from the climate change levy. When forecasting climate change levy it was assumed that the receipts would be collected from April 2001, whereas they actually started coming in from July.

Vehicle excise duty **3.35** VED receipts were £0.3 billion below forecast in 2001-02, largely reflecting changes in the composition of the vehicle fleet towards lower taxed vehicles, which is scored as a fiscal forecasting difference. Receipts in 2002-03 were marginally above forecast.

Council tax **3.36** Council tax receipts in 2001-02 were £0.6 billion higher than forecast in Budget 2001, and also £0.6 billion higher than forecast in 2002-03. Both were the result of fiscal forecasting differences. Net council tax receipts are defined as local authority gross council tax receipts less Council Tax Benefit paid to local authorities by central government. Most of the difference can be accounted for by a higher than forecast growth in the council tax base assumed by local authorities at the outset of 2001-02 and 2002-03 respectively. In both years the Council Tax Benefit outturn was in line with forecasts over the period.

Other taxes and royalties **3.37** The difference in other taxes and royalties in both 2001-02 and 2002-03 largely reflects higher than expected VAT refunds to central government and public corporations, which scores entirely as a fiscal forecasting difference. Since VAT refunds are also included in expenditure, this has no effect on net borrowing. These higher VAT refunds are partly offset by lower than expected taxes on products that are paid directly to the EU. These taxes are subtracted from net taxes and social security contributions, in the VAT and own resources EC contributions lines of Tables 3.2 and 3.3, before arriving at total public sector current receipts, so again are fiscally neutral.

3.38 The higher than expected VAT refunds in 2001-02 are also partly offset by changes to the classification of Independent Television Commission (ITC) franchise payments, which amount to around £0.4 billion per annum. These were moved out of taxes on production and into gross operating surplus and rent, with no net impact on total receipts. Similarly, levy funded bodies' receipts and expenditure are now classified as gross figures in the National Accounts, whereas expenditure used to be published net of receipts. This revision increases other taxes and royalties and also total receipts and current expenditure by around £0.2 billion. Both these changes are scored under other differences.

Accruals adjustments **3.39** In 2001-02 the difference in the accruals adjustment from forecast was largely due to lower than expected accrued levels of business rates and customs duties. In 2002-03 the shortfall was due to lower accrued levels of business rates and national insurance contributions.

Other receipts **3.40** 'Other receipts' consists of gross operating surplus and rent, including accruals adjustments of the proceeds from the auction of spectrum licences, central government current transfers from households, general government rent receipts (excluding oil royalties) and central government current transfers to public corporations.

3.41 ‘Other receipts’ in 2001-02 and 2002-03 were £0.3 billion and £0.8 billion below forecast respectively. This was largely due to the changes in the definition of taxes in the Blue Book 2003. In particular, ONS introduced changes in the definition of current receipts so they no longer included business rates paid by local authorities. This reduced receipts by around £0.9 billion in each year and is scored under ‘other’ factors and is matched by a corresponding reduction in local authority expenditure, such that there is no overall impact on fiscal aggregates.

3.42 The impact of this definitional change in 2001-02 was partly offset by the reclassification of ITC franchise payments as described above in paragraph 3.38. The £0.2 billion fiscal forecasting difference was largely due to higher than forecast public sector gross operating surplus and central government net receipts.

Conclusion

3.43 Current receipts rose from £390.0 billion in 2001-02 to £396.5 billion in 2002-03. Differences between forecasts and outturns of currents receipts in this period were between 2 and 3 per cent in each year. The retrospective analysis of these differences described in this chapter is important as it can highlight shortcomings of particular forecasting methods, and suggest ways in which forecasting performance can be improved, for example:

- the analysis of stamp duty differences has resulted in a new forecasting method that models the commercial and residential property sectors separately, rather than relying on the old assumption that commercial property prices would track residential prices;
- the analysis of the tobacco forecasting differences has resulted in a new forecasting assumption regarding the smuggled share that is more reasonable and should result in more accurate forecasts;
- the analysis of the fuel duty forecast led forecasters to conclude that their model was not fully explaining recent changes in fuel consumption. As a result, a new model was developed that made use of more up-to-date information.

4 PUBLIC EXPENDITURE

This chapter provides a detailed analysis of public expenditure in 2001-02 and 2002-03. It shows that:

- **forecasts of spending have been close to outturn in each financial year: the difference between forecast and outturn was 0.3 per cent of GDP in 2001-02 and 0.1 per cent of GDP in 2002-03;**
- **the government continues to reduce the costs of social and economic failure: debt interest and social security benefit payments have continued to fall from 32 per cent of total spending in 2001-02 to 31 per cent in 2002-03, releasing additional resources for priority public services; and**
- **there was a substantial increase in public sector net investment over the past two years, addressing the historical under-investment in public services.**

INTRODUCTION

4.1 This chapter provides a more detailed examination of trends and developments in public expenditure in 2001-02 and 2002-03 and, in particular, differences between projected expenditure and outturn for the year-ahead projections in Budgets 2001 and 2002.

Total Managed Expenditure

4.2 Public expenditure is measured across the whole of the public sector using the aggregate Total Managed Expenditure (TME). TME is the sum of public sector current expenditure, public sector net investment and public sector depreciation. These aggregates are based on National Accounts definitions defined under the European System of Accounts 1995.

4.3 For budgeting purposes, TME is divided into:

- Departmental Expenditure Limits (DEL): firm three-year spending limits for departments; and
- Annually Managed Expenditure (AME): spending that due to its nature that cannot reasonably be subject to firm multi-year limits. It includes social security and debt interest payments, some central government non-departmental spending, some local authority and public corporation spending as well as adjustments that are made to reconcile with National Accounts.

4.4 To improve long-term planning and to protect capital investment, DEL is further divided into capital and resource (current) budgets, which are managed separately. Full end-year flexibility (EYF) allows departments to carry forward resources from one year to the next.

4.5 For Budget 2001 and Budget 2002, both DEL and AME expenditure for 2001-02 and 2002-03 respectively were based on the levels planned under the budgeting basis used for the 2000 Spending Review. This was a hybrid of the cash budgeting that was in operation prior to the 2000 Spending Review and resource budgeting that was subsequently introduced in full at the 2002 Spending Review.

Data revisions **4.6** Data on public spending remains provisional for a considerable period after the end of the relevant financial year. For example, resource accounts for central government departments are finalised around nine months after year-end, while consolidated data for local authorities is produced over a longer time scale. This means that the data in this chapter, particularly for 2002-03, is not final. The information is, however, sufficiently robust to allow an analysis of forecasting differences, with future revisions likely to change the detail rather than the main conclusions.

OVERALL PUBLIC EXPENDITURE FORECASTING DIFFERENCES

4.7 Table 4.1 below shows the latest outturn for key public spending aggregates for 2001-02 and 2002-03, including a comparison of the differences in the year-ahead forecasts for spending in Budgets 2001 and 2002. TME rose to £419 billion or 40 per cent of GDP in 2002-03.

Table 4.1: Summary of public expenditure forecasting differences

	£ billion					
	2001-02			2002-03		
	Forecast	Outturn	Difference	Forecast	Outturn	Difference
Total Managed Expenditure						
of which:						
Public sector current expenditure	367.0	367.4	0.4	389.9	394.0	4.1
Public sector net investment	11.2	9.5	–1.6	14.4	10.7	–3.7
Public sector depreciation	15.5	13.8	–1.7	14.0	14.4	0.3
Total Managed Expenditure	**393.7**	**390.7**	**–3.0**	**418.4**	**419.1**	**0.7**
of which:						
Departmental Expenditure Limits						
Resource Budget	187.0	187.6	0.6	201.2	205.2	4.1
Capital Budget	25.3	24.1	–1.2	28.3	28.0	–0.3
Total Departmental Expenditure Limits	**212.3**	**211.6**	**–0.7**	**229.5**	**233.3**	**3.8**
Total Annually Managed Expenditure	**181.4**	**179.1**	**–2.3**	**188.9**	**185.8**	**–3.1**

4.8 Overall, the provisional outturns for TME remained close to forecast in both years. Differences between outturn and forecast were 0.3 per cent of GDP in 2001-02 and 0.1 per cent of GDP in 2002-03.

4.9 Table 4.1 shows that investment has increased in nominal terms by 12 per cent between 2002-01 and 2002-03. The rise in investment reflects the Government's determination to address the historical under-investment in public services.

Forecast differences in 2001-02 **4.10** In 2001-02, TME was £3.0 billion below forecast. Public sector current expenditure was £0.4 billion higher than forecast due to higher than projected resource expenditure in AME and DEL. The former was primarily a function of spending to control the outbreak of Foot and Mouth Disease and higher than forecast locally-financed expenditure. This was partly offset by lower net payments to EC institutions, lower public sector pensions expenditure and lower central government debt interest payments.

4.11 Public sector net investment was £1.6 billion lower than projected due to lower capital expenditure in DEL and AME. The latter reflected lower locally-financed capital expenditure, lower expenditure by the National Lottery and within AME accounting adjustments. This was partially offset by capital spending related to Foot and Mouth Disease. The lower outturn for depreciation again reflected data revisions made subsequent to forecasts.

Forecast differences in 2002-03

4.12 In 2002-03, TME was £0.7 billion above forecast. Public sector current expenditure was £4.1 billion higher than forecast mainly due to higher than projected resource expenditure in DEL, discussed in more detail below. Public sector net investment was £3.7 billion lower than projected due to lower capital expenditure in DEL and AME. The latter reflected, in part, lower locally-financed capital expenditure and lower expenditure by the National Lottery.

SPENDING FORECASTING AND REASONS FOR DIFFERENCES

4.13 The following section analyses the differences between forecasts and outturns. Differences are decomposed into four categories used in Chapters 2 and 3:

- **economic determinants:** for example, debt interest payments on index-linked government bonds are affected by the accrued inflation uplift on these bonds, which is in turn dependent upon inflation forecasts;
- **audited assumptions:** for example, the assumption on the unemployment claimant count used in the social security forecast and the assumption for interest rates used in the forecast of debt interest payments;
- **fiscal forecasting differences:** which could arise from differences in the projected number of benefit recipients, or differences between outturns and plans for DEL; and
- **other:** includes measures announced after publication of the Budget forecast, for example, the measure related to Winter Fuel Payments announced in the 2001 Pre-Budget Report, as well as classification changes.

DEL FORECASTING DIFFERENCES

4.14 Tables 4.2 and 4.3 below provide a breakdown of TME forecasting differences for 2001-02 and 2002-03 respectively. Differences between outturn and plans reflect the difference between the planned limits for departmental expenditure and the actual expenditure – such differences are treated as 'fiscal forecasting differences' with the exception of classification changes, which are treated as 'other' differences.

4.15 Departments are able to carry-forward unspent budgetary allocations into future years under the end-year flexibility (EYF) arrangements. This is designed to avoid wasteful year-end surges in spending by allowing departments to commit funding to planned projects in subsequent years and deliver the Government's plans for improvements to the public services. The take-up of EYF by departments in subsequent years can increase total DEL spending above the planned or forecast levels set out in successive Budgets. Further information on the stock of EYF, including a breakdown by department, is included in the Public Expenditure Outturn White Paper, published in July of each year.

Table 4.2: Breakdown of Budget 2001 forecasting differences for public expenditure for 2001-02

				£ billion			
	Forecast	Outturn	Difference	of which:			
				Economic determinants	Assumptions audited by the NAO	Fiscal forecasting differences	Other
Departmental Expenditure Limits							
Resource Budget	187.0	187.6	0.6	0.0	0.0	–0.5	1.0
Capital Budget	25.3	24.1	–1.2	0.0	0.0	–0.3	–0.9
Total Departmental Expenditure Limits	**212.3**	**211.6**	**–0.7**	**0.0**	**0.0**	**–0.8**	**0.1**
Annually Managed Expenditure	**181.4**	**179.1**	**–2.3**	**–0.2**	**–0.8**	**0.7**	**–2.1**
Total Managed Expenditure	**393.7**	**390.7**	**–3.0**	**–0.2**	**–0.8**	**0.0**	**–2.0**
of which:							
Public sector current expenditure	367.0	367.4	0.4	–0.2	–0.8	2.3	–1.0
Public sector net investment	11.2	9.5	–1.6	0.0	0.0	–0.7	–1.0
Public sector depreciation	15.5	13.8	–1.7	0.0	0.0	–1.7	0.0

Table 4.3: Breakdown of Budget 2002 forecasting differences for public expenditure for 2002-03

				£ billion			
	Forecast	Outturn	Difference	of which:			
				Economic determinants	Assumptions audited by the NAO	Fiscal forecasting differences	Other
Departmental Expenditure Limits							
Resource Budget	201.2	205.2	4.1	0.0	0.0	4.4	–0.3
Capital Budget	28.3	28.0	–0.3	0.0	0.0	–0.3	0.0
Total Departmental Expenditure Limits	**229.5**	**233.3**	**3.8**	**0.0**	**0.0**	**4.1**	**–0.3**
Annually Managed Expenditure	**188.9**	**185.8**	**–3.1**	**–0.3**	**–0.6**	**–0.1**	**–2.1**
Total Managed Expenditure	**418.4**	**419.1**	**0.7**	**–0.3**	**–0.6**	**3.9**	**–2.4**
of which:							
Public sector current expenditure	389.9	394.0	4.1	–0.3	–0.6	7.2	–2.2
Public sector net investment	14.4	10.7	–3.7	0.0	0.0	–3.6	–0.1
Public sector depreciation	14.0	14.4	0.3	0.0	0.0	0.3	0.0

DEL in 2001-02

4.16 Budget 2001 forecast total DEL spending of £212.3 billion in 2001-02, while actual spending on total DEL was £211.6 billion or some £0.7 billion below plans. The difference between plans and outturn is equivalent to 0.3 per cent of forecast total DEL or 0.1 per cent of GDP.

4.17 Spending on resource DEL was £0.6 billion above plans due to classification changes of £1.0 billion and fiscal forecasting differences of £0.5 billion. The differences reflected in classification changes, which are scored as 'other', had no impact on total public spending, while the fiscal forecasting differences reflect the fact that in aggregate departments under-spent their planned allocations.

4.18 Conversely, spending on capital DEL was £1.2 billion below plans due to fiscal forecasting differences of £0.3 billion and classification changes of £0.9 billion. As above, the differences due to classification changes did not affect total public spending, while the remaining changes represent the variance between planned and actual spending. As Departments are able to carry unspent capital DEL allocations forward as EYF, spending below forecast does not reduce the Government's aggregate plans for investment in public services.

DEL in 2002-03

4.19 The provisional outturn for total DEL spending in 2002-03 is £233.3 billion or some £3.8 billion above the forecast of £229.5 billion set out in Budget 2002. The difference between forecast and provisional outturn amounts to 1.7 per cent of forecast total DEL or 0.4 per cent of GDP.

4.20 The provisional outturn for resource DEL is £4.1 billion above the Budget 2002 forecast, with an increase due to fiscal forecasting differences of £4.4 billion, which is partially offset by a reduction of £0.3 billion due to classification changes. This was due to the UK's international commitments over this period, including those in Iraq, and departments drawing down funds from previous years under the EYF arrangements described above.

4.21 The outturn for capital DEL was £0.3 billion below Budget 2002 forecasts mainly due to forecasting changes. This represents a substantial improvement on the performance in 2001-02 and amounts to a year-on-year increase in capital DEL spending of nearly £4 billion or a real terms increase of 13 per cent. As above, unspent capital budget allocations can be carried forward under the EYF arrangements to maintain the Government's investment plans.

AME FORECASTING DIFFERENCES

4.22 Expenditure in AME, unlike spending in DEL, is not subject to firm spending limits. AME projections are based on forecasts for individual AME components, with forecasts being reviewed at each Budget.

4.23 Tables 4.4 and 4.5 below present a breakdown of forecasting differences in AME for 2001-02 and 2002-03 respectively. Forecast differences for a particular AME spending component are apportioned to one or more of the four types of forecast differences discussed above. Forecasting differences correspond to 0.2 and 0.3 per cent of GDP in 2001-02 and 2002-03 respectively.

AME component analysis

Social security benefits 2001-02

4.24 The outturn for social security benefit payments in 2001-02 was very close to forecast. Outturn figures reported here are final and therefore slightly different from the estimated outturns reported for 2001-02 in the 2002 *End of year fiscal report.*

4.25 In 2001-02, NAO audited assumptions accounted for an over-forecast of £0.4 billion, with a further £0.1 billion arising from fiscal forecasting differences. These differences were offset by an under-forecast of £0.4 billion in the 'other' category.

4.26 Forecasting differences attributed to NAO-audited assumptions resulted from outturn unemployment being lower than the assumption made at the time of Budget 2001. The forecast assumed that the claimant count would be 1.16 million: its outturn was 1.05 million and therefore expenditure on Jobseeker's Allowance, as well as related payments of Housing and Council Tax Benefits, were lower than forecast.

4.27 Forecasting differences classified as 'other' were the result of higher than forecast spending on Winter Fuel Payments. This was due to the decision in the 2001 Pre-Budget Report to maintain the level of the payment at £200 a year rather than £150.

Table 4.4: Breakdown of Budget 2001 AME forecasting differences for public expenditure for 2001-02

				£ billion			
	Forecast	Outturn	Difference	of which:			
				Economic determinants	Assumptions audited by the NAO	Fiscal forecasting	Other
Annually Managed Expenditure							
Social security benefits	104.9	104.8	–0.1	0.0	–0.4	–0.1	0.4
Housing Revenue Account subsidies	4.6	4.5	0.0	0.0	0.0	0.0	0.0
Common Agricultural Policy[1]	2.6	3.6[2]	1.0	0.0	0.0	1.2	–0.2
Export Credits Guarantee Department	0.8	0.3	–0.4	0.0	0.1	–0.5	0.0
Self-financing public corporations' capital expenditure	1.0	1.0	0.0	0.0	0.0	0.0	0.0
Net public service pensions	5.6	5.0	–0.6	0.0	0.0	–0.6	0.0
National Lottery	2.3	1.7	–0.6	0.0	0.0	–0.6	0.0
Other programme expenditure[3]	0.4	0.4	0.0	0.0	0.0	0.1	–0.1
Net payments to EC institutions	2.7	0.8	–1.9	0.0	0.0	–1.9	0.0
Locally financed expenditure	19.1	20.4	1.2	0.0	0.0	1.2	0.0
Central government gross debt interest	23.1	22.1	–1.1	–0.2	–0.5	0.0	–0.4
Accounting and other adjustments[3]	13.1	14.4	1.3	0.0	0.0	2.0	–0.7
AME Margin	1.0	0.0	–1.0	0.0	0.0	0.0	–1.0
Total Annually Managed Expenditure	**181.4**	**179.1**	**–2.3**	**–0.2**	**–0.8**	**0.7**	**–2.1**

[1] At Spending Review 2002, payments related to the Over Thirty Month Scheme (OTMS) were switched from AME to DEL. OTMS was introduced during the BSE outbreak to compensate farmers for the slaughtering of older cattle to reduce the risk of new cases of BSE emerging.

[2] Includes costs arising from Foot and Mouth Disease in AME.

[3] In Budget 2001, the other programme expenditure line included a number of items that did not score as expenditure under national accounts definitions, and these items were adjusted out in accounting adjustments. In order to provide a clearer breakdown of the reasons for differences between forecast and outturn expenditure, these items have been removed from the figures in this table. For the same reason, non-cash items, which were shown separately in table C11 of 2001 Budget, have also been removed from this table and the accounting adjustments. Forecast figures for the other programme expenditure and accounting adjustments line therefore do not match those published in the 2001 Budget.

Table 4.5: Breakdown of Budget 2002 AME forecasting differences for public expenditure for 2002-03

				£ billion			
	Forecast	Outturn	Difference	of which:			
				Economic determinants	Assumptions audited by the NAO	Fiscal forecasting differences	Other
Annually Managed Expenditure							
Social security benefits	109.0	109.3	0.3	0.0	–0.1	0.5	–0.1
Housing Revenue Account subsidies	4.5	4.3	–0.3	0.0	0.0	–0.3	0.0
Common Agricultural Policy[1]	2.6	2.7[2]	0.1	0.0	0.0	–0.2	0.2
Export Credits Guarantee Department	0.4	0.1	–0.3	0.0	0.0	–0.1	–0.2
Self-financing public corporations' capital expenditure	1.2	1.1	0.0	0.0	0.0	0.0	0.0
Net public service pensions	5.1	4.1	–1.0	0.0	0.0	–1.0	0.0
National Lottery	2.3	1.8	–0.5	0.0	0.0	–0.5	0.0
Other programme expenditure[3]	0.1	–0.1	–0.3	0.0	0.0	–0.1	–0.2
Net payments to EC institutions	2.2	2.3	0.1	0.0	0.0	0.1	0.0
Locally financed expenditure	20.7	19.7	–1.0	0.0	0.0	–1.0	0.0
Central government gross debt interest	21.1	20.9	–0.3	–0.3	–0.5	0.5	0.0
Accounting and other adjustments[3]	18.8	19.7	1.0	0.0	0.0	1.9	–0.9
AME Margin	1.0	0.0	–1.0	0.0	0.0	0.0	–1.0
Total Annually Managed Expenditure	**188.9**	**185.8**	**–3.1**	**–0.3**	**–0.6**	**–0.1**	**–2.1**

[1] At Spending Review 2002, payments related to the Over Thirty Month Scheme (OTMS) were switched from AME to DEL. OTMS was introduced during the BSE outbreak to compensate farmers for the slaughtering of older cattle to reduce the risk of new cases of BSE emerging.

[2] Includes the costs arising from Foot and Mouth Disease in AME.

[3] In Budget 2002, the other programme expenditure line included a number of items that did not score as expenditure under national accounts definitions, and these items were adjusted out in accounting adjustments. In order to provide a clearer breakdown of the reasons for differences between forecast and outturn expenditure, these items have been removed from the figures in this table. For the same reason, non-cash items, which were shown separately in table C11 of 2002 Budget, have also been removed from this table and the accounting adjustments. Forecast figures for the other programme expenditure and accounting adjustments line therefore do not match those published in the 2002 Budget.

4.28 Fiscal forecasting differences in 2001-02 were due to spending on Housing Benefit and Council Tax Benefit being lower than forecast. This was because the proportion of Income Support recipients also drawing Housing and Council Tax Benefit was lower than forecast. For a number of years, this proportion had been increasing and reflected the increasing likelihood of Income Support recipients living in rented housing. However, this trend did not continue in 2001-02 as had been forecast.

4.29 These fiscal forecasting differences were partially offset by the impact of the Government's policy to improve the speed and consistency of decision-making and appeals related to Disability Living Allowance. This meant that new awards of Disability Living Allowance were higher than forecast. Fiscal forecasting differences also arose due to the under-forecast of Incapacity Benefit payments.

Social security benefits 2002-03

4.30 Outturn figures for 2002-03 are preliminary in nature. The outturn for social security payments was £0.3 billion above the Budget 2002 forecast. This difference was mainly attributed to fiscal forecasting differences. However, these under-forecasting differences were offset by over-forecasting differences scored under NAO-audited assumptions as well as by those classified as 'other'.

4.31 Forecasting differences due to NAO-audited assumptions resulted from outturn unemployment being lower than the assumption made at the time of Budget 2002. This resulted in lower than forecast expenditure on Jobseeker's Allowance, as well offsetting the greater than forecast payments of Housing and Council Tax benefits during 2002-03. Forecasting differences classified as 'other' resulted from a classification change.

4.32 Fiscal forecasting differences arose due to a combination of higher than forecast spending on Minimum Income Guarantee benefit payments, and Disability Living Allowance due in part to the same reasons as in 2001-02. However, this was offset by the lower than forecast payment of Income Support due to the lone parent caseload being lower than forecast. Social fund spending was also lower than expected.

Housing Revenue Account subsidies

4.33 Forecast expenditure on housing revenue subsidies paid in 2001-02 was equal to its outturn level while in 2002-03 it was £0.3 billion above outturn. Outturn figures for 2002-03 are, however, preliminary in nature. Forecasting differences in 2002-03 are classified as fiscal forecasting differences and reflect, in part, housing revenue account subsidies from local authorities being higher than forecast.

Common Agricultural Policy

4.34 The outturn for expenditure related to the Common Agriculture Policy (CAP) for 2001-02 was £1.0 billion above the Budget 2001 forecast. Fiscal forecasting differences in 2001-02 were driven by the primary and secondary effects of Foot and Mouth Disease (FMD), discussed in Box 4.1 of the 2002 *End of year fiscal report.* The former effect refers to the direct costs arising from measures to control FMD, for example disposal and haulage costs, while the latter relates to indirect costs from the FMD outbreak such as the suspension or delay of payments for existing schemes. In 2001-02, FMD movement restrictions led to the suspension of the Over Thirty Month Scheme and delays in the payment of CAP direct aid to farmers. Forecast differences defined as 'other' in 2001-02 reflected a change in the classification of spending related to the Over Thirty Month Scheme from AME to DEL.

4.35 The outturn in 2002-03 was only £0.1 billion above the forecast made at the time of Budget 2002, due to small fiscal and other forecasting differences. The latter was due to the same reasons outlined in 2001-02.

Export Credits Guarantee Department

4.36 Expenditure related to the Export Credits Guarantee Department (ECGD) was lower than forecast by £0.4 billion in 2001-02 and £0.3 billion in 2002-03. Outturn figures for 2001-02 reported here are final and slightly different from the estimated outturns reported in the 2002 EYFR.

4.37 ECGD expenditure includes lending to assist UK exporters. Under national accounts, lending by government departments is classified as a financial transaction and is therefore netted out within accounting adjustments. Forecasting differences in 2001-02 mainly arise from fiscal forecasting differences, which reflect differences between assumptions and outturn levels on the volume of lending by ECGD. This was also responsible for fiscal forecasting differences in 2002-03. The remaining £0.2 billion of forecasting differences for 2002-03 were attributed to 'other' factors and reflects the decision to adopt a more prudent policy on the use of public funds for the refinancing of exports in benign economic conditions.

Net public service pensions

4.38 Net public service pensions payments reflect the difference between contributions made by and the payments made to scheme members. The outturn for net public sector pensions was £0.6 billion and £1.0 billion below the forecasts made at Budget 2001 and Budget 2002 respectively. Forecast differences in both years are scored as fiscal forecasting differences.

4.39 Of the £0.6 billion of forecast differences for 2001-02, net payments made by the NHS (England and Wales) Pension Scheme accounted for £0.3 billion of this difference, and arose due to the impact of the NHS Plan and Improving Working Lives Initiative. During this financial year, there was also a 70,000 increase in the NHS (England and Wales) Pension Scheme's membership.

4.40 The £1.0 billion of forecast differences for 2002-03 were in part attributed to net payments made by the NHS (England and Wales) Pension Scheme and by the Teachers (England and Wales) Pension Scheme being lower than forecast. Similar reasons for 2001-02 led to net payments being £0.2 billion lower than forecast for the NHS (England and Wales) Pension Scheme, while higher than expected contributions from employers resulting from a more generous than forecast settlement of teachers' pay awards resulted in net payments made by Teachers (England and Wales) Pension Scheme being £0.1 billion lower than the forecast made at time of Budget 2002.

National Lottery

4.41 Lottery forecasts for 2001-02 and 2002-03 were £0.6 billion and £0.5 billion respectively higher than outturn. The differences reflect funding being drawn down more slowly than forecast. These delays could arise for a number of reasons including organisations waiting for partnership funding, or the project itself being scheduled to run from a future date.

Net payments to EC institutions

4.42 The outturn for net payments to EC Institutions for 2001-02 is £1.9 billion below the Budget 2001 forecast, while for 2002-03 it is £0.1 billion higher. Differences between forecast and outturn reflects the methodology used to forecast net payments to EC Institutions.

4.43 Because of the known uncertainties in forecasting payments to EC institutions, in particular the timing risk associated with payments being made to and from EC institutions, forecasts for forward years are made on a trend basis. This is based on the average of the one-year or 'spot' forecasts of expenditure using past, current and forward years. The methodology of publishing forecasts on this basis has been accepted by the Treasury Select Committee. Consequently, under this trend-based forecasting methodology, there is likely to be a difference between the outturn and trended forecast. This difference is classified as a fiscal forecasting difference. It is estimated that this accounted for £1.4 billion of the £1.9 billion of forecast differences in 2001-02. Of the remaining forecast differences in 2001-02, other fiscal forecasting differences produced an outturn that was £0.3 billion below forecast. These reflected data revisions.

4.44 For the 2002-03 financial year, the slightly higher outturn is due to fiscal forecasting differences.

Locally-financed expenditure

4.45 This covers local authority expenditure financed from council tax and other sources of finance other than central government grants, and central government expenditure in Northern Ireland financed by regional rates. The outturns for locally financed expenditure for 2001-02 and 2002-03 were £1.2 billion above and £1.0 billion lower than forecast. However, the outturns are still subject to change as data on local authority expenditure is provisional, particularly for 2002-03.

4.46 Differences in both financial years are scored as arising from fiscal forecasting differences. Forecasts of expenditure are produced by making assumptions about the growth rates of the individual components of finance available to local authorities. Therefore, possible sources of fiscal forecasting differences are due to errors in these income projections but also partly due to timing and other differences between income and expenditure.

Central government gross debt

4.47 Central government debt interest payments in 2001-02 were £1.1 billion lower than the Budget 2001 forecast. Some £0.4 billion of this difference results from a redefinition by the ONS of government debt interest payments to exclude payments made within the public sector. This is attributed to 'other' factors. Of the remaining £0.7 billion of forecast differences for 2001-02, £0.2 billion was due to a lower than forecast uplift on index-linked debt, which is scored as an economic determinants difference. This is the adjustment in interest payments and principal repayment on redemption as adjusted in line with inflation as measured by the RPI. The remaining £0.5 billion was attributed to lower than assumed interest rates on short-term borrowing, including Treasury bills, and is scored under assumptions audited by the NAO.

4.48 Outturn debt interest payments for 2002-03 were £0.3 billion below the forecast made at the time of Budget 2002. Some £0.3 billion was due to a lower than forecast uplift on index-linked debt and a further £0.5 billion was attributed to lower than expected interest rates on short-term borrowing, including Treasury bills. Largely offsetting these differences were fiscal forecasting differences totalling £0.5 billion, including the effect of higher than forecast central government borrowing in the year.

Accounting and other adjustments

4.49 The accounting adjustments reconcile the budgeting aggregates DEL and AME with the National Accounts aggregate TME. They remove items which are included within DEL and AME but which do not score in TME, for example financial transactions such as lending by ECGD. They also include items that score within TME but not elsewhere in DEL and AME, for example VAT refunded to central and local government and to public corporations.

4.50 In 2001-02, accounting adjustments were £1.3 billion higher than forecast. This reflected a combination of the re-classification of debt interest payments mentioned previously, as well as outturn VAT refunds to the public sector being higher than forecast (discussed in Chapter 3). Changes to VAT refunds to the public sector have offsetting changes in spending and are therefore fiscally neutral. Accounting adjustments were £1.0 billion higher than forecast for 2002-03.

AME Margin

4.51 The year-ahead forecasts for AME for Budget 2001 and 2002 included an AME margin of £1 billion to minimize the risk of outturn AME exceeding its forecast. The change in AME margin is classified as 'other' in the breakdown of forecasting differences.

Conclusion

4.52 Total government spending rose by 7 per cent in nominal terms from £391 billion in 2001-02 to £419 billion during 2002-03. The increase in spending is fully consistent with the Government's fiscal rules, as explained in greater detail in Chapter 2.

A PUBLIC FINANCES AND THE CYCLE

This annex examines the relationship between the economic cycle and the public finances. It confirms the results of previous Treasury analysis and supports the current coefficients used to calculate cyclically-adjusted fiscal aggregates. The Treasury's ready reckoners for calculating cyclically-adjusted estimates of key fiscal indicators are shown below.

Cyclically Adjusted (CA) Fiscal Aggregate		Fiscal Aggregate		Output Gap		Lagged Output Gap
CA net borrowing	=	net borrowing	+	0.50	+	0.20
CA current budget	=	current budget	–	0.50	–	0.20

Overall a 1 per cent increase in output relative to trend after two years is estimated to reduce the ratio of public sector net borrowing to GDP by just under ¾ percentage point[1], while increasing the ratio of surplus on the current budget to GDP by just under ¾ percentage point.

A1 The economic cycle has important short-term effects on the public finances and it is important to distinguish between cyclical and underlying or 'structural' effects in the public finances. The UK's experience suggests that serious mistakes can occur if purely cyclical improvements are treated as if they were structural, and conversely if a structural deterioration is interpreted as cyclical. The *Code for Fiscal Stability*[2] requires the Government to publish estimates of the cyclically-adjusted balances.

A2 This annex builds on and updates previous analysis published by the Treasury[3]. It takes account of the revised Blue Book 2003 National Accounts data published in September and discussed in Box 2.1.

The automatic stabilisers

A3 Automatic stabilisers are the features of the public finances that serve to dampen the impact of shocks on output[4]. For example when economic activity is strong, other things being equal, receipts from income and corporation tax will tend to be higher while expenditure on social security will be lower. This implies that government borrowing will tend to fall when activity is strong, and rise when activity is weak. Rising government borrowing represents a net increase in domestic demand, so this automatic fiscal effect will tend to moderate economic downturns.

A4 The fiscal rules are set over the economic cycle so that the automatic stabilisers can be allowed to work fully without endangering the long-term sustainability of the public finances. Experience has shown, however, that serious policy mistakes can occur if purely cyclical improvements in the public finances are treated as if they represented structural improvements, or if structural deteriorations are thought to be merely cyclical effects[5]. It is therefore essential to adjust fiscal indicators for the effects of the economic cycle when assessing fiscal prospects.

[1] The same applies to the ratio of public sector net cash requirement, as financial transaction are not expected to be expected to by cyclical, and the Maastricht definition of deficit.
[2] HM Treasury (November 1998).
[3] *Fiscal policy: public finances and the cycle*, HM Treasury (March 1999) and *Public Finances and the Cycle*, HM Treasury (September 1995).
[4] A fuller discussion of the automatic stabilisers, including some international comparisons, is presented in the EMU discussion paper *Fiscal stabilisation and EMU*, HM Treasury (June 2003).
[5] *Fiscal policy: lessons from the last economic cycle*, HM Treasury (November 1997).

Box A.1: 'Bottom up' and 'top down' approaches

The disaggregation of differences between forecast and outturn into the four categories described in this report represents a 'bottom up' approach. For each item of taxation or expenditure, this approach looks at how changes in key modelling inputs, such as the NAO audited assumptions or economic determinants, affects revenues or spending. Summing these effects across all the individual tax and spending items produces an overall effect on the public finances. This 'bottom up' approach reflects the forecasting process and helps us identify the detailed reasons for difference, and the exact tax or expenditure items where the differences occurred.

In contrast, the way in which the Government estimates the effect of the economic cycle on the public finances, described in more detail below, uses a 'top down' approach. The Government's method for cyclical adjustment uses the historical relationship between the main fiscal aggregates and the output gap to calculate the sensitivity of the public finances to the economic cycle. The sensitivity is then applied to the main fiscal aggregates to produce cyclically-adjusted figures. This 'top down' approach helps to increase understanding of the effect of the economic cycle on the main fiscal aggregates.

While the Government provides analyses on the basis of both the 'bottom up' and 'top down' approaches, the results they produce are not generally comparable. For example, the analysis contained in this document ascribes some of the difference between forecast and outturn to the main economic determinants. This will not normally be the same as the effect of the economic cycle on the public finances, calculated using the 'top down' approach. The two approaches serve different purposes, and therefore comparisons between the results from them are extremely difficult.

Cyclical adjustment methodology

A5 A Treasury Occasional Paper published in 1995, *Public finances and the cycle*, set out in detail the methodology used for deriving coefficients for cyclical adjustment. These coefficients are used in 'ready reckoners' to adjust nominal fiscal aggregates (expressed as ratios to GDP) to produced cyclically-adjusted variables.

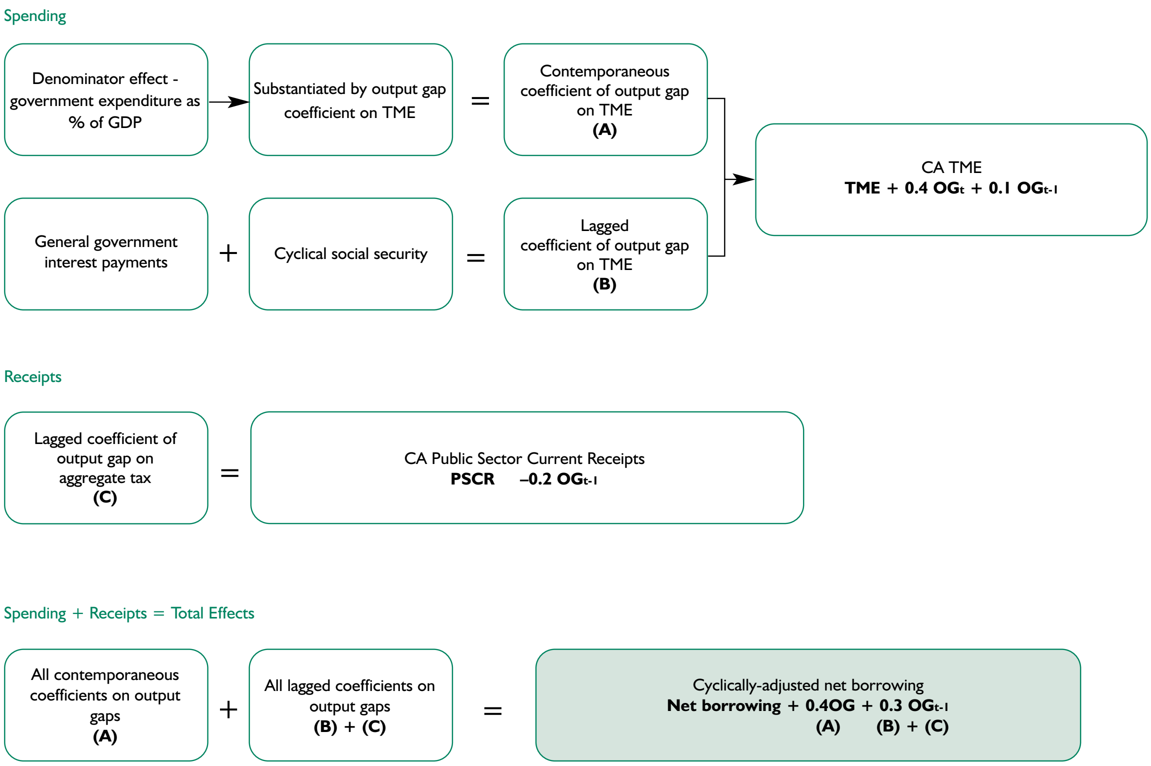
A6 The underlying methodology is relatively simple. Spending and revenue expressed as ratios to GDP over the past 30 years are regressed against estimates of contemporaneous and lagged output gaps. The coefficients in the equations indicate the responsiveness of the public finances to the average economic cycle and are used in the ready reckoners.

A7 The use of historical data means that the estimates reflect the average effect of changes in the output gap on the public finances over previous cycles. This means that, the extent to which one particular economic cycle differs from the average, temporary changes in the public finances may not be fully ascribed to the economic cycle.

The 1999 ready reckoners

A8 Chart A.1 shows the ready reckoners used to calculate cyclically-adjusted estimates of key fiscal indicators as estimated in 1999. The overall ready reckoner is derived from the combination of ready reckoners for Total Managed Expenditure (TME) and public sector current receipts (PSCR). In turn these are underpinned by estimates of the sensitivity of individual tax and spending items to the economic cycles.

Chart A.1: Derivation of the ready reckoners in the 1999 analysis



Effect of reforms to corporation tax

A9 Since 1999, there have been significant reforms to the corporation tax system involving the abolition of payable tax credits on dividends and advance corporation tax (ACT), and the introduction of quarterly instalment corporation tax payments for large companies. These changes are likely to have increased the timeliness of receipts to changes in economic activity.

A10 Analysis undertaken at the time of the reforms suggested that half of the effect of the output gap on total receipts would move from the following year to the current year. The coefficient on the lagged output gap term in the receipts equation would fall from 0.2 to 0.1 and the coefficient on the contemporaneous output gap would rise from 0 to 0.1. The effect on the ready reckoners for the current budget and net borrowing was to move the coefficients from 0.4 on the current output gap and 0.3 on the lagged output gap to 0.5 and 0.2 respectively. This change in the coefficients was phased in from 1998-99 onwards and will not be fully in place until 2003-04, when the adjustment to the new system is complete.

UPDATED ECONOMETRIC RESULTS

A11 The section below shows updated regression analysis for the tax and spending items used in the 1999 analysis.

Expenditure and the Cycle

A12 Total Managed Expenditure (TME) is the sum to Annually Managed Expenditure (AME) and Departmental Expenditure Limits (DEL). As a ratio to GDP, it is sensitive to the cycle principally through a 'denominator' effect', whereby the ratio of TME to GDP essentially drives the contemporaneous effect of the cycle on the public finances. This is because it is assumed that there is no significant change in public spending in cash terms. Currently the ratio of TME to GDP is around 40 per cent, which implies that a one per cent increase in output relative to trend would reduce the share of TME as a percentage of GDP by 0.4 percentage points in the first year.

A13 In addition it is useful to look at how TME as a ratio to GDP varies according to the output gap. Table A.1 shows the regression results for TME as reported in the 1999 analysis and the current update. The relationship between the output gap and TME is relatively stable. The TME equation implies that a one per cent rise in GDP relative to trend reduces the TME to GDP ratio by just over 0.3 percentage points in the first year rising to 0.57 per cent over the longer term. As the effects of discretionary changes cannot be removed from TME, the coefficient on the contemporaneous output gap in the TME equation is assumed to be 0.4 in recognition of the denominator effect discussed above, as before.

Table A.1: Regression results for Total Managed Expenditure (TME) and the cycle (per cent of GDP)

Equation	Dependent variable	Constant	TME(-1)	TME(-2)	Output Gap	T66	T75	R^2	Standard error
1999	TME	23.72	0.83	–0.42	–0.34	0.45	–0.61	0.87	1.10
		(6.05)	(5.12)	(–3.28)	(–3.36)	(3.38)	(–3.76)		
2003 update	TME[1]	22.64	0.86	–0.43	–0.32	0.49	–0.67	0.92	1.05
		(6.08)	(5.52)	(–3.47)	(–3.27)	(3.44)	(–3.95)		

Notes: t-statistics in parentheses; Estimation period 1966-67 to 1997-98 for 1999 results, estimation period 1966-67 to 2002-03 for 2003 update; T66 is time trend since 1966-67; T75 is time trend since 1975-76.

[1] Dynamic response of TME to GDP ratio to a one per cent change in the output gap.

Year	t	t+1	t+2	t+3	t+4	t+5	long run
Change in TME	-0.32	-0.60	-0.69	-0.65	-0.58	-0.54	-0.56

A14 In addition, there are two spending items that are likely to display a high sensitivity to the cycle: cyclical social security[6] and debt interest payments. The tables below show that the coefficients on the output gap variables for both cyclical social security and general government interest debt payments are very similar to the to the 1999 analysis. Table A.2 shows the first year effect for debt interest payments is -0.03 rising to -0.06 in the second year[7].This confirms the coefficient for the lagged output gap in the spending equation is 0.1, as previously.

Table A.2: Regression results for General Government Debt Interest Payments (GGDIP) and the cycle (per cent of GDP)

Equation	Dependent variable	Constant	GGDIP (-1)	GGDIP (-2)	Output Gap	T66	T75	R^2	Standard error
1999	GGDIP	0.67	1.18	–0.35	–0.02	0.02	–0.03	0.88	0.21
		(2.21)	(6.49)	(–2.04)	(–1.34)	(0.77)	(–1.04)		
2003 update	GGDIP	0.48	1.00	–0.17	–0.03	0.05	–0.07	0.93	0.24
		(1.51)	(5.66)	(–0.98)	(–1.44)	(1.55)	(–1.94)		

Notes: t-statistics in parentheses; Estimation period 1966-67 to 1997-98 for 1999 results, estimation period 1966-67 to 2002-03 for 2003 update; T66 is time trend since 1966-67; T75 is time trend since 1975-76.

[6] Where cyclical social security comprises of spending on Jobseeker's Allowance and Income Support for non-pensioners.

[7] The effect of the output gap on debt interest payments is complex and discussed in more detail in *Public Finances and the Cycle*, HM Treasury (September 1995).

Table A.3: Regression results for Cyclical Social Security (CSS) and the cycle (per cent of GDP)

Equation	Dependent variable	Constant	Output Gap(-1)	Time	R^2	Standard error
1999	CSS	1.08	–0.08	0.05	0.51	0.30
		(6.83)	(–3.54)	(–4.03)		
2003 update	CSS	1.55	–0.08	–	0.30	0.35
		(20.75)	(–3.16)			

Notes: t-statistics in parentheses; CSS expressed as a proportion of whole economy GDP; Estimation period1999 analysis 1978-79 to 1997-98; Estimation period 2003 update 1978-79 to 2002-03; Time is trend variable since 1978-79.

A15 As the results for the expenditure equations are very similar to the 1999 analysis, it is proposed that the coefficients on the ready reckoner for expenditure are maintained at 0.4 for the contemporaneous output gap and 0.1 for the lagged output gap

Receipts and the cycle

A16 Movements in tax receipts over time will be influenced by a number of factors, including

- discretionary tax measures;
- real fiscal drag;
- transitory factors such as North Sea oil revenues; and
- genuine effects of the cycle.

A17 It is necessary to adjust the series for the first three influences in order to examine the genuine effects of the cycle.

A18 The data used has been adjusted for the effects of discretionary changes on tax revenues by creating constant tax regimes with 1989-90 as the base using Budget costings[8]. Real fiscal drag has been accounted for by the inclusion of the trend GDP variable. Finally, the effects of transitory factors such as North Sea revenues have been removed by using non-oil GDP as the base rather than conventional GDP.

A19 Costings for the other principal elements – national insurance contributions (NICs), local authority taxes and other non-tax receipts (mainly interest, dividends, trading surpluses and rent) – are not available on a consistent basis. Therefore as in previous analyses the cyclicality of these components is not estimated because they could be seriously distorted by the effect policy changes.

A20 As can be seen from the table below, the results for income tax, VAT and excise duties (excluding motoring excise duties) equations are similar to those in the previous analysis. The output gap coefficient on the excise motor equation[9] is now slightly significant but essentially the excise motor and excise other ratios to GDP do not exhibit a significant relationship to the cycle, though this does not affect the overall results.

[8] Usually found in Chapter A of the Financial Statement and Budget Report.

[9] Where excise motor includes fuel duties and vehicles excise duty (VED).

Table A.4: Regression results for tax receipts and the cycle (per cent of GDP)

Equation	Dependent variable	Constant	Output Gap	Output Gap (-1)	Trend GDP	R^2	Standard error
1999	Income	–72.25	–0.18	0.20	6.15	0.87	0.39
		(–11.14)	(–4.21)	(4.54)	(12.44)		
2003 update	Income	–102.82	–0.18	0.23	8.42	0.89	0.65
		(–12.86)	(–2.56)	(3.23)	(14.01)		
1999	Corporation	–26.64	–	0.17	2.25	0.84	0.27
		(–6.07)		(9.19)	(6.74)		
2003 update	Corporation	–22.19	0.06	0.12	1.89	0.84	0.29
		(–6.28)	(2.07)	(3.83)	(7.13)		
1999	VAT	5.58	0.03	–	–	0.10	0.22
		(105.51)	(1.83)				
2003 update	VAT	5.57	0.02	–	–	0.03	0.28
		(103.74)	(0.88)				
1999	Excise Motor	55.64	–	–	–3.97	0.88	0.13
		(8.87)			(–8.44)		
2003 update	Excise Motor	64.12	–0.02	–	–4.58	0.90	0.15
		(15.02)	(–2.11)		(–14.59)		
1999	Excise Other	92.16	–	–	–6.77	0.93	0.29
		(19.05)			(–18.38)		
2003 update	Excise Other	79.30	–	–	–5.74	0.89	0.41
		(16.87)			(–16.22)		
1999	Sum of coefficients	54.49	–0.15	0.37	–2.34		
2003 update	Sum of coefficients	23.98	–0.18	0.35	0.00		
1999	Aggregate	–104.49	–	0.23	9.74	0.88	0.70
		(–3.57)		(2.39)	(4.37)		
2003 update	Aggregate	113.10	–	0.23	10.30	0.93	0.68
		(–5.82)		(2.56)	(7.05)		

Notes: t-statistics in parentheses; Estimation period for 1999 analysis 1971-72 to 1997-98; Estimation period for 2003 update 1971-72 to 2002-03; Trend GDP is in logs; Excise motor regression includes ratio of petrol to diesel courtesy of Department for Transport Statistics, the estimated coefficient of which was -0.05 with a t-stat of -15.19; Error term on Aggregate equation is modelled as an AR(2) as in 1999 update to avoid serial correlation.

Corporation Tax **A21** Corporation tax however, is quite different from the 1999 analysis. The contemporaneous output gap coefficient is now significant, while the coefficient on the lagged output gap is smaller than before. This change can be explained by the reforms to corporation tax, described in A9 and A10, and supports the adjustment made to the results of the 1999 analysis.

Aggregate results **A22** The new results for the aggregate equation show the same coefficient on the lagged output gap, with the coefficient on the contemporaneous output gap remaining insignificant. This is despite the results of the corporation tax equation, which suggest that receipts are responding to economic cycle more promptly than previously.

A23 Given that the corporation tax reforms were phased in from 1998-99 onwards with full effects taking place this year, it is unlikely that these would be able to feed through to the aggregate results. However, the new results for the corporation tax receipts indicate that changes are starting to lead to an increase in the contemporaneous output gap coefficients. The reforms will have much bigger effect in 2003-04 and beyond and therefore the full adjustment will be made for this year onwards, phasing it in over the transition period as discussed above.

A24 To allow for the corporation tax reforms, and consistent with previous practice and the results for the corporation tax equation presented in Table A.4, the ready reckoner for PSCR will assign 0.1 of the total effect to the contemporaneous output gap and 0.1 to the lagged output gap. The coefficient on the trend GDP variable implies real fiscal drag of around 0.2 per cent of GDP a year.

Overall results

A25 The coefficients on the ready reckoners will remain as 0.5 per cent of GDP for the contemporaneous output gap and 0.2 per cent of GDP for the lagged output gap response, as shown below.

Table A.5: Summary of ready reckoners (per cent of GDP)

Cyclically Adjusted Fiscal Aggregate		Fiscal Aggregate		Output Gap		Lagged Output Gap
Cyclically-adjusted TME	=	TME	+	0.4	+	0.1
Cyclically-adjusted PSCR[1]	=	PSCR	–	0.1	–	0.1
Cyclically-adjusted net borrowing	=	net borrowing	+	0.5	+	0.2
Cyclically-adjusted current budget	=	current budget	–	0.5	–	0.2

[1] *The coefficients on PSCR are adjusted to take account of the corporation tax reforms.*

A26 These estimates are approximate and simplified representations of the true dynamic impact of the output gap on the public finances. In practice, every cycle is different and so will be the effect on the public finances. Nevertheless, other estimates of the cyclicality of the UK's public finances yield similar, though not identical, results[10].

Table A.6: Comparison with other institutions

Organisation	Sensitivity to the Cycle
European Central Bank	0.65
OECD	0.5
European Commission	0.5
HM Treasury	0.5 year 1 0.2 year 2

[10] Bouthevillain et al (2001), *'Cyclically-Adjusted Budget Balances: An Alternative Approach'*. ECB Working Paper No.77; Van de Noord (2000), *'The Size and Role of Automatic Stabilizers in the 1990s and Beyond'*. OECD Working Paper 230 January; European Commission (2002a), *'Public Finances in EMU–2002'*. European Economy No.3.

B Assumptions used in Budget 2001 and Budget 2002

Table B.1: Budget 2001 – key assumptions audited by the National Audit Office

	Assumption used for Budget 2001
Privatisation proceeds	Credit is taken only for proceeds from sales that have been announced.
Trend GDP growth	2¼ per cent a year.
UK claimant unemployment	Rising slowly to 1.06 million in 2003–04, from recent levels of 1.03 million, consistent with the average of independent forecasts.
Interest rates	3 month market rates change in line with market expectations (as of February 28).
Equity prices	FT-All share index rises from 2902 in line with money GDP.
VAT	Ratio of VAT to consumption falls by 0.05 percentage points a year.
GDP deflator and RPI	Projections of price indices used to plan public expenditure are consistent with RPIX.
Composition of GDP	Shares of labour income and profits in national income are broadly constant in the medium term.
Funding	Funding assumptions used to project debt interest are consistent with the forecast level of government borrowing and with financing policy.
Oil prices	$24.40 a barrel in 2001, the average of independent forecasts, and then constant in real terms.
Anti-tobacco smuggling measures	Only direct effects, including deterrent effects of fiscal marks, are allowed for.

Table B.2: Budget 2002 – key assumptions audited by the National Audit Office

	Assumption used for Budget 2002
Privatisation proceeds	Credit is taken only for proceeds from sales that have been announced.
Trend GDP growth	2½ per cent a year.
UK claimant unemployment	Rising slowly to 1.00 million in 2003–04, from recent levels of 0.95 million, consistent with average of independent forecasts.
Interest rates	3-month market rates change in line with market expectations (as of 10 April).
Equity prices	FT-All share index rises from 2542 (close 5 April) from Q2 2002 in line with money GDP.
VAT	Ratio of underlying VAT receipts to consumption falls by 0.05 percentage points a year.
GDP deflator and RPI	Projections of price indices used to plan public expenditure are consistent with RPIX.
Composition of GDP	Shares of labour income and profits in national income are broadly constant in the medium term.
Funding	Funding assumptions used to project debt interest are consistent with the forecast level of government borrowing and with financing policy.
Oil prices	$21.50 a barrel in 2002, the average for Q1 2002, and then constant in real terms.
Anti-tobacco smuggling measures	Only direct effects, including deterrent effects of fiscal marks, are allowed for.

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ACT	Advance corporation tax
AME	Annually Managed Expenditure
CA	Cyclically adjusted
CAP	Common agricultural policy
CBO	Congressional Budget Office
CSS	Cyclical social security
CT	Corporation tax
DEL	Departmental Expenditure Limits
DPTC	Disabled Persons Tax Credit
DTI	Department of Trade and Industry
EC	European Communities
ECGD	Export Credits Guarantee Department
EU	European Union
EYF	End-year flexibility
EYFR	End of year fiscal report
FMD	Foot and Mouth Disease
G7	Group of seven (leading industrial nations): Canada, France, Germany, Italy, Japan, the United Kingdom and the United States
GDP	Gross Domestic Product
GGDIP	General Government debt interest payments
ITC	Independent Television Commission
NAO	National Audit Office
NHS	National Health Service
NIC's	National Insurance Contribution's

OECD	Organisation for Economic Cooperation and Development
ONS	Office for National Statistics
OTMS	Over Thirty Month Scheme
PC	Public corporations
PSA	Public Service Agreement
PSCR	Public sector current receipts
PSBR	Public sector borrowing requirement
PSNB	Public sector net borrowing
RPI	Retail Price Index
RPIX	Retail Price Index excluding mortgage interest payments
TME	Total Managed Expenditure
VAT	Value added tax
VED	Vehicle excise duty
WFTC	Working Families' Tax Credit

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