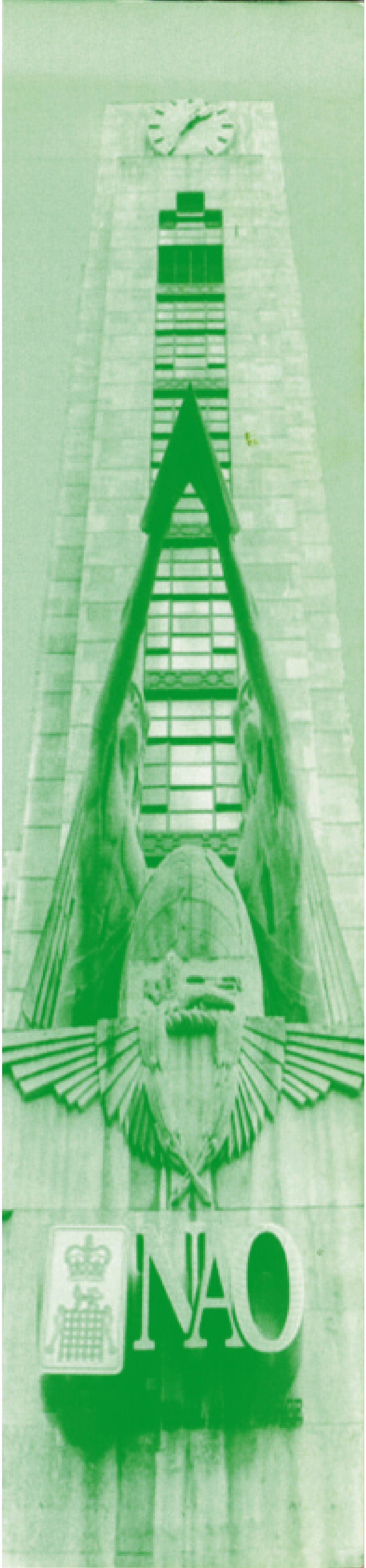
National Audit Office

Audit of Assumptions for the March 2000 Budget



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Report by the Comptroller and Auditor General to the House of Commons

Statement of responsibilities

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

2 The Chancellor of the Exchequer has indicated that he wishes me to examine a new assumption to be used in projecting the public finances, in connection with the revenue deriving from anti-tobacco smuggling measures. I understand that none of the assumptions I have examined in previous reports (Cm 3693; HC 361, Session 1997-98; HC 616, Session 1997-98; HC 294, Session 1998-99; and HC 873, Session 1998-99) is to be altered. As before, the Treasury remains responsible for making projections of future public expenditure and revenue on the basis of these assumptions.

3 The Chancellor has in addition asked, from this Budget onwards, that I conduct a three year rolling review of the assumptions that I have audited previously. This is to provide a check both that the assumptions remain reasonable and cautious, and to see whether they have resulted in reasonable and cautious projections in the period since they were first audited.

Anti-tobacco smuggling measures

4 The assumption the Chancellor proposes to use is:

- For the purposes of projecting the revenue from duties on tobacco, the estimates of additional revenue resulting from the anti-tobacco smuggling measures announced in the November 1999 pre-Budget Report and the further measures the Government is committed to introducing, are based on the direct effect of these measures, including the deterrent effect of fiscal marks, and exclude their indirect effects.

Rolling review

5 The Chancellor's remit to me on the rolling review is as follows:

- To ensure that the key audited assumptions underpinning projections of the public finances remain valid, the Comptroller and Auditor General shall examine each audited assumption three years after its most recent audit:

a) to review whether the assumption has resulted in reasonable and cautious projections of the elements of the public finances projections it relates to since it was first audited; and

b) to check that it remains a reasonable and cautious assumption to use in future projections of the public finances.

6 For the purposes of the March 2000 Budget, this entails an audit of assumptions concerning privatisation proceeds, underlying GDP growth and interest rates. I audited these assumptions ahead of the July 1997 Budget, (Cm 3693).

7 At that time I also audited the assumption for unemployment, but as I re-examined this assumption in advance of the March 1999 Budget, (HC 294, Session 1998-99), it is not included in the rolling review that I report on here.

8 A further set of assumptions audited in advance of the July 1997 Budget related to the Spend to Save programmes of a number of Government Departments. The savings covered the three years from 1997-98 to 1999-2000. The assumptions for the Spend to Save programme are therefore no longer relevant for future years, but fall to be reviewed under paragraph 5(a) above. Their reasonableness will need to be assessed by reference to actual expenditure and revenue for all three years. Audited figures are not yet available for 1999-2000 but will be by the autumn. I therefore intend to examine the outcome on Spend to Save in my next report under the remit in paragraph 5 above.

Basis of Report

9 As in my previous reports on assumptions underlying the fiscal projections, I have considered the available evidence which I judged to be relevant to the new assumption and to those covered by the rolling review. Evidence was obtained from relevant papers and discussions with officials as appropriate in the Treasury, HM Customs and Excise, and the Bank of England. In assessing the assumption for trend GDP growth, I considered estimates made by a range of other relevant organisations.

10 The results of my examination of these assumptions are set out below.

Report

Anti-tobacco smuggling measures

11 To combat the growth of tobacco smuggling, measures were announced in the Pre-Budget Report (PBR) (Cm 4479) published in November 1999. These measures were as follows.

i Investment in a national network of x-ray scanners to examine between five and ten times as many freight consignments as are currently investigated manually. Mobile, relocatable and fixed scanners will all be procured to combat freight smuggling, which the department believes accounts for some 70-80 per cent of smuggled cigarettes.

ii A scheme for fiscal marks to be introduced from April 2001 to indicate on packs of cigarettes and hand rolling tobacco that duty has been paid. This measure is distinct from the separate possibility of measures to inhibit forestalling rather than smuggling. Forestalling is the practice of building up large stocks of cigarettes ahead of the Budget, and paying duty on the stock just before the changes in duty take effect.

iii New criminal offences will be developed alongside the fiscal marks measure. It will be an offence to possess, transport, sell or offer for sale, or otherwise deal in, tobacco products that do not bear the mark, other than in specified circumstances. And it will be an offence to use or allow the use of premises for the sale of unmarked products.

iv The Department will also confiscate light commercial vehicles used for the smuggling of tobacco products on the first offence and these will not be restored. A similar policy also operates on freight vehicles.

v A new licensing framework including provision for temporary closure of premises and revocation of licences will be introduced.

vi A publicity campaign will be launched which has the aim of publicising the range of measures now being taken and increasing the flow of information from the public.

A further measure, to be announced shortly, is the deployment of additional staff to work directly on tackling smuggling. This measure is intended to complement those already announced in the Pre-Budget Report.

12 All of the above measures are intended to reduce the level of smuggling and increase revenue yield. However, HM Customs and Excise have made no allowance for (iv), (v) and (vi) in the fiscal projections because the effects are particularly difficult to quantify. Some allowance for the remaining measures has been made in the fiscal projections, distinguishing between two types of effect:

- additional seizures of smuggled cigarettes; and
- deterrence of smuggling and restricting the growth in the market for smuggled cigarettes.

13 The additional revenues that have been included in the fiscal projections are as follows.

Revenue included in fiscal projections

Table 1

Revenue (£ million) accruing from:	**2000-01**	**2001-02**	**2002-03**
Seizures made by additional staff (Budget)	290	525	675
Seizures resulting from the installation of scanners (Pre-Budget Report)	25	80	230
Seizures resulting from the introduction of fiscal marks (Pre-Budget Report)	0	44	53
Deterrence resulting from the introduction of fiscal marks (Pre-Budget Report)		176	212
Total	315	825	1170

Additional seizures

14 For additional staff and the introduction of scanners, the fiscal projections include only the revenue that will accrue from additional seizures. Extra officers are to be deployed over the next three years to implement the department's strategy to tackle smuggling. As well as additional frontier staff, they will include staff for investigative, intelligence and legal work. The Department has estimated the additional seizures that these staff are likely to make using information on current seizure rates. It has also assumed that productivity in terms of cigarette seizures per staff year will increase substantially from current levels as improved intelligence leads to better targeting of higher risk traffic.

15 In estimating the level of seizures from the introduction of scanners the Department has drawn on the experience of overseas Customs agencies to calculate the increased number of containers and vehicles that it would be able to examine. This increase in efficiency, together with an assumption about the likelihood of an examination leading to a seizure, has led to its estimate of the additional number of seizures that scanners would generate.

Deterrence

16 The Department has not sought to include the deterrent effects of increased staffing and installation of scanners. Although it has made provisional estimates of these, it does not believe that they can be predicted with sufficient accuracy, and they have therefore been excluded from the fiscal projections.

17 In seeking to estimate the impact of the introduction of fiscal marks and associated penalties, the Department has no experience of any recent equivalent measure to draw upon. It has therefore estimated the total impact of this measure, and assumed that 80 per cent of this total will be attributable to deterrence and the remainder to increased seizures. It believes that the increased detectibility resulting from the marks, and the new strict liability offences, should act as a strong disincentive to handling and stocking smuggled cigarettes, which will impact directly on the propensity to trade in them throughout the supply chain.

Revenue yield

18 Having estimated the quantities of smuggled cigarettes prevented, it is necessary to calculate the impact on revenue yield. This will depend on the extent to which the cigarettes are replaced by duty-paid sales. The proportion of cigarettes which are smuggled is estimated to be in the region of 18 per cent, but HM Customs and Excise have assumed that replacement sales for seized cigarettes will all be duty-paid. While not the most restrictive assumption which could be adopted, this broadly reflects the aim of the measures, which is to depress substantially the market share of illicit sales. A much higher proportion of hand rolling tobacco is believed to be smuggled (around 80 per cent) but the product accounts for only 5 per cent of tobacco sales at market prices.

Conclusion

19 The Department has estimated the total additional yield for all the above measures at £2.3 billion over the three years 2000-01 to 2002-03. They have sought only to include revenue within the fiscal projections that can be estimated with some certainty. On these grounds, several of the measures have been omitted from the projections. For the remainder, only the effect of increased seizures has been counted in most cases. The exception is for fiscal marks, a new measure where the balance between seizures and deterrence is uncertain, but where the deterrent effect should be more direct than for the other measures.

20 The nature of the assumptions made inevitably means that there will be some uncertainty regarding both the levels of productivity achieved and the levels of seizures made, especially as some of the measures have not been used in this context before. Nevertheless, within the limitations of the methods used, the approach adopted is reasonably cautious in discounting a number of possible but uncertain impacts of the measures.

Review of July 1997 Budget assumptions

Privatisation proceeds

21 The convention adopted for the July 1997 Budget projections was that credit would only be taken for privatisation proceeds from sales that had already been announced. Since no plans for further privatisations had then been announced, provision was only made for further proceeds from privatisations already carried out, which amounted to £2 billion for 1997-98. No provision was made for proceeds from 1998-99 onwards.

22 The definition of privatisation proceeds adopted for the July 1997 projections comprised sales by central government of businesses, either by flotation (including subsequent equity and debt sales) or trade sale. Actual proceeds for 1997-98 were £1.8 billion on this basis, with a further £0.1 billion in 1998-99. Thus the assumed level of £2 billion has been broadly validated, and the convention adopted for these proceeds has resulted in a reasonable projection of the receipts to which it relates.

23 For the future, the projections include proceeds from the Public Private Partnerships for Belfast Port, National Air Traffic Services, and the Defence Evaluation and Research Agency. These proceeds amount to £400 million in 2000-01 and £300 million in 2001-02. These sales have all been announced, and the inclusion of the proceeds in the fiscal projections is therefore consistent with the convention for scoring these receipts. No credit has been taken for any other privatisation proceeds as defined above.

Rate of growth

24 The Treasury assumption refers to the rate of economic growth that the economy is judged to be capable of sustaining over the medium term without generating upward or downward pressures on inflation. An assumption for the growth rate of GDP is needed as a basis for estimating future revenue yields. For the purposes of the fiscal projections, the Treasury measures economic growth as the change in United Kingdom non-oil gross domestic product.

25 The Treasury considers that there is no reason to change the judgement of the underlying annual rate of 2¼ per cent which was used for this purpose in the July 1997 Budget. I have considered the last three years' growth rates in order to see how the assumption has compared with actual growth rates. I have also compared the assumption with the long term average rate to see whether it remains a prudent assumption.

26 As regards the period since the July 1997 assumptions were adopted, Table 2 below sets out the rate of growth in each year. The rate has fluctuated around an average of 2½ per cent. While a period of three years is too short to establish a trend, the growth rates over that period are consistent with the conclusion that 2¼ per cent is a reasonable and cautious assumption.

Real growth rates, 1997-98 to 1999-00

Table 2

	1997-98	**1998-99**	**1999-00 estimated**	**Average**
Non-oil GDP Growth (%)	3.4	1.8	2.4	2.5

27 The assumption of 2¼ per cent is slightly below the long term rate of growth in non-oil gross domestic product, which was 2.4 per cent over the last four decades (1957 Q1 to 1999 Q4). Estimates of long term economic growth are made by a number of organisations. Table 3 shows a selection of such estimates drawn from academics, banks, international institutions and others. The average long term growth rate, based on these estimates, is 2.4 per cent. The estimates range from 2 per cent to 2½ per cent, and the most frequently occurring figure is 2½ per cent.

Other estimates of the long term rate of growth

Table 3

Source	**Estimate (per cent)**
PriceWaterhouseCoopers	2-2¼
Oxford Economic Forecasting	2.4
London Business School	2.4
SBC Warburg	2½-3
Institute for Fiscal Studies (in collaboration with Goldman Sachs)	2¼ for fiscal projections 2½ for underlying economy growth
Merrill Lynch	2½
Institute of Directors[1] (IOD)	2¼-2½
Cambridge Econometrics	2½
James Capel (now HSBC)	2¼
International Monetary Fund (IMF)	2½
Organisation for Economic Co-operation and Development (OECD)	2½
Average[2]	2.4

Notes: 1. The IOD uses the Treasury long term growth forecast
2. Average based on mid-points where forecasts specified a range.

Source: HM Treasury survey (March 2000)

28 The Treasury does not forecast the course of the economic cycle beyond the short term. However, many institutions do produce medium term forecasts of actual growth rates. A number of these are collated in the Treasury publication: "Forecasts for the UK Economy: A comparison of independent forecasts". The most recent publication, from February 2000, contains the following projections for gross domestic product for the calendar years from 2000 to 2004, inclusive. These are summarised in Table 4.

Forecast of Gross Domestic Product from other bodies

Source: Table M1, Forecasts for the UK economy No 154, HM Treasury February 2000

Table 4

	2000	2001	2002	2003	2004
Highest	3.2	3.1	3.6	3.0	2.7
Average	2.9	2.5	2.4	2.3	2.4
Lowest	2.2	2.0	1.2	1.5	2.0

29 I concluded in my audit of assumptions for the July 1997 Budget projections that the assumption of underlying growth in the economy of 2¼ per cent seemed broadly consistent with past experience, with long term estimates of growth and with medium term assessments of economic prospects. I believe that the available evidence has been and remains consistent with that view, and that for the purposes of the fiscal projections the assumption is reasonable and cautious.

Interest rates

30 Assumptions for future interest rates are needed by the Treasury for projecting the cost of paying interest on central Government debt, as well as for certain other elements of the fiscal projections, such as tax receipts on interest income and mortgage tax relief. The Treasury estimate that a sustained one per cent increase in short term interest rates leads to an increase in interest payments on central Government net debt of about £1 billion in the medium term.

31 Following the transfer of responsibility for setting interest rates to the Bank of England in May 1997, the Treasury based its projections of interest rates on information from the financial futures market for United Kingdom securities. This approach relies on the view that financial markets are efficient in taking account of all information available to them to value financial assets, and that yields on long term bonds reflect the short term interest rates that the market expects to prevail over the period until redemption of the bond. I concluded in my July 1997 audit (Cm 3693), that while it was not the only approach, this was a reasonable way of setting assumptions about interest rates for the purposes of the fiscal projections. I have confirmed that the Treasury has continued to use the approach since its adoption for the July 1997 Budget fiscal projections.

32 The difference between the forecasts and outturns is summarised in Table 5. It shows that the forecasts since July 1997 have been within about 1 percentage point of the actual level of interest rates for periods of up to about two years ahead. The tendency has been to overstate the level of interest rates, and thus the projected level of debt interest payments. It has therefore been consistent with erring on the side of caution in making the fiscal projections.

Forecast error in projected short term interest rates since July 1997, percentage points

Table 5

Forecast made for	Forecast error in 1997-98	Forecast error in 1998-99	Forecast error in 1999-00
July 1997 Budget	-0.1	0.4	1.4
Pre-Budget Report November 1997	0.1	0.8	1.4
March 1998 Budget	-	0.4	0.9
Pre-Budget Report November 1998	-	0.3	0.1
March 1999 Budget	-	-	-0.3
Pre-Budget Report November 1999	-	-	0.0

Notes: 1. Data from HM Treasury
2. Error is defined as forecast minus outturn short term interest rate

33 My audit of July 1997 (Cm 3693) considered whether there are better alternative methods for projecting interest rates, including rules that describe how interest rates have been adjusted in the past by the authorities in respect of factors such as the difference between actual and target inflation. As then, I have no reason to believe that they offer methods that would be agreed on generally as offering superior results to those derived from market based financial information.

34 I therefore conclude for the reasons set out above that the approach adopted by Treasury since July 1997 for projecting interest rates has been and remains a reasonable convention for estimating their fiscal effect.

Conclusion

35 For each of the three audited assumptions from the July 1997 Budget which I have reviewed, the evidence suggests that they have provided a reasonable basis for the elements of the fiscal projections to which they relate, and that they should continue to do so for future projections.

John Bourn
Comptroller and Auditor General

16 March 2000

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