

DEBT & RESERVES MANAGEMENT REPORT 2003-04



HM TREASURY

April 2003

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FOREWORD BY THE FINANCIAL SECRETARY TO THE TREASURY

This is the tenth annual report outlining the Government's debt management activities. It also includes details of the management of the Official Reserves by the Bank of England.

On 20 March 2003, in compliance with the *Code for Fiscal Stability*, HM Treasury published the *Provisional Debt Management Report 2003-04* which reviewed debt management activities in 2002-03 and set out the provisional remits for the Debt Management Office (DMO) and National Savings and Investments (NS&I). We have now updated the financing plans for 2003-04 to reflect the new forecasts for the public finances published in the Budget papers, and new remits for both NS&I and the DMO are published herein. Additionally, the remit for the management of the Official Reserves by the Bank of England has been added to this report.

This report also contains an update of the Government's ongoing work on the structure of the debt portfolio and in particular, how it may be affected by various issuance strategies and exogenous shocks. This work allows us to develop a greater understanding of how better to manage the portfolio in light of potential risks and to look towards developing an "optimal portfolio" and better defining our debt management objective.

Net issuance is projected to be £26.3 billion in 2003-04. An updated auction calendar for 2003-04 is published in this report. Our issuance strategy continues to adhere to our debt management objectives, balancing the needs of the market against the costs and risks to the gilts portfolio.



9 April 2003

RUTH KELLY
Financial Secretary to the Treasury

INTRODUCTION

This is the tenth annual report outlining the Government's debt management activities.

The *Debt and Reserves Management Report* is published in compliance with the *Code for Fiscal Stability*¹ which requires that a debt management report be published every financial year. It was for this reason that HM Treasury decided to publish the *Provisional Debt Management Report 2003-04*² on 20 March 2003 in advance of Budget 2003. This publication updates and expands the information published in that report.

The report is designed to review developments in debt management over the past financial year and sets out the details of the Government's borrowing programme for the forthcoming financial year.

The report complements the UK Debt Management Office's (DMO) regular publications and covers the following areas:

- the size and structure of the UK Government's debt portfolio;
- UK debt and cash management policy;
- a review of the Government's financing programme in 2002-03;
- developments in the liabilities of National Savings and Investments in 2002-03;
- developments in the management of the Official Reserves by the Bank of England;
- the Government's financing programme for 2003-04; and
- the remits for 2003-04 set by HM Treasury for the DMO, the Bank of England and National Savings and Investments.

SIZE AND STRUCTURE OF UK GOVERNMENT'S DEBT IN 2002-2003

Debt stock

The total nominal outstanding stock of United Kingdom Central Government marketable sterling debt (including official holdings by central government) was £307.7 billion at end-March 2003. This comprised of £214.6 billion of conventional gilt-edged stock, £78.1 billion of index-linked gilts (including accrued inflation uplift) and £15.0 billion of Treasury bills (see Table 1). An additional £63.0 billion (including accrued interest) was invested in National Savings and Investments instruments.

Table 1:
Composition of UK central government sterling debt

(£ billion, nominal value, including official holdings)

	End-March 2002	End-March 2003
Conventional gilts¹	207.3	214.6
Index-linked gilts²	71.4	78.1
Treasury bills³	9.7	15.0
Total	288.4	307.7
National Savings and Investments	62.3	63.0

¹includes undated stocks.

²includes accrued indexation uplift.

³includes Treasury bill stock in market hands.

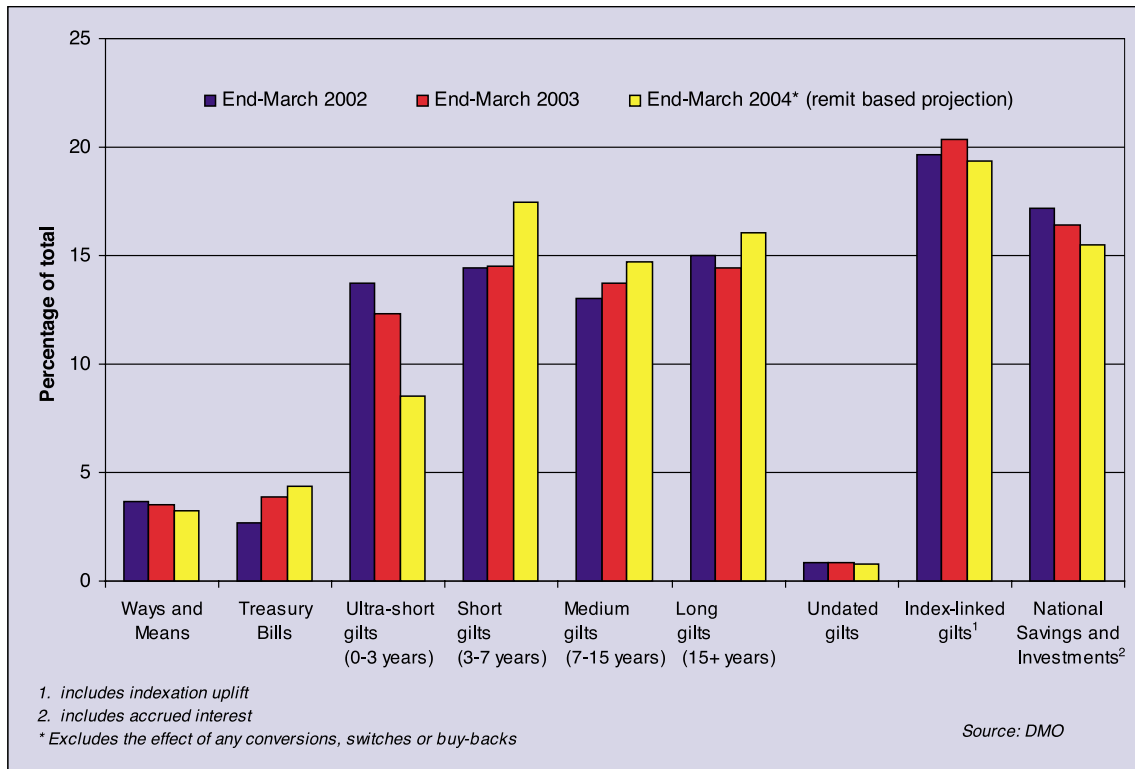
Source: DMO/NS&I

¹ The *Code for Fiscal Stability* can be found on HM Treasury's website at: http://www.hm-treasury.gov.uk/documents/uk_economy/fiscal_policy/ukecon_fisc_code98.cfm

² The *Provisional Debt Management Report 2003-04* can be found on HM Treasury's website at:

http://www.hm-treasury.gov.uk/documents/uk_economy/debt_management_report/ukecon_dmr_prov03to04.cfm and also on the UK Debt Management Office's website at: <http://www.dmo.gov.uk/remit/dmr03-04.pdf>

Chart 1: Changes in the percentage composition of UK total government marketable debt (including official holdings)



Maturity and duration

The average maturity of the stock of all dated gilts rose from 11.00 years to 11.22 years between end-March 2002 and end-March 2003. The average maturity of conventional gilts alone rose from 10.24 years to 10.37 years. Over the same period, the modified duration of the conventional portfolio of marketable gilts rose from 6.56 years to 6.89 years.

The maturity and duration of the Government's marketable domestic debt continues to be amongst the longest when compared to other European countries.

Chart 1 shows a comparison of the Government's debt portfolio at end-March 2002 through to the proposed composition at end-March 2004. It assumes that new debt is issued in accordance with the forecast financing requirement and the issuance remit and takes into account the ageing of existing debt. It does not, however, make assumptions about possible conversion offers, switch and reverse auctions or buy-backs.

Distribution of gilt holdings

Table 2 shows the distribution of the market value of gilt holdings by sector at end-March 2002 and end-December 2002. Insurance companies and pension funds continue to be major investors in gilts and still own the majority of gilts in issue, whilst overseas holdings of gilts have declined slightly as a percentage of total gilt holdings.

Interest payments

Gross central government debt interest payments in 2001-02 were £22.1 billion, equivalent to 5.7% of total managed expenditure (TME). In 2002-03, they are forecast to be £20.8 billion (4.9% of TME) and in 2003-04, £21.8 billion (4.8% of TME).

Table 2: Distribution of gilt holdings (market values)

	End-March 2002		End-Dec 2002	
	£ bn	%	£ bn	%
Insurance companies and pension funds	177.2	60.9	202.7	66.2
Banks and building societies ¹	6.1	2.1	-1.6	-0.5
Other financial institutions	22.6	7.8	17.1	5.6
Households	28.1	9.7	29.4	9.6
Other public sector ²	3.9	1.4	3.4	1.1
Overseas	53.0	18.2	55.2	18.0
Total	291.0	100	306.1	100

1. Negative position results from banks' and building societies' activities in the gilt repo market

2. Other public sector = local authorities and public corporations

Source: ONS

Public Sector Debt and Sustainability

The Government's fiscal strategy has restored the public finances to a sound and sustainable position, and public sector net debt has been reduced from 44 per cent of GDP in 1996-97 to 31 per cent of GDP in 2002-03. Moreover, the UK now has the lowest net debt to GDP ratio of any country in the G7.

The Government's fiscal policy framework is underpinned by its two fiscal rules - the golden rule and the sustainable investment rule. The latter is that public sector net debt as a proportion of GDP, will be held over the economic cycle at a stable and prudent level. Other things equal, net debt will be maintained below 40 per cent of GDP over the economic cycle.

The Central Government Net Cash Requirement (CGNCR) measures the amount that central government has to borrow to meet all its expenditure commitments. The CGNCR was equal to 3.3% of GDP in 1996-97, whereas in 2002-03 it was 2.0 per cent.

Chart A: Public sector net debt and central government net cash requirement as a percentage of GDP

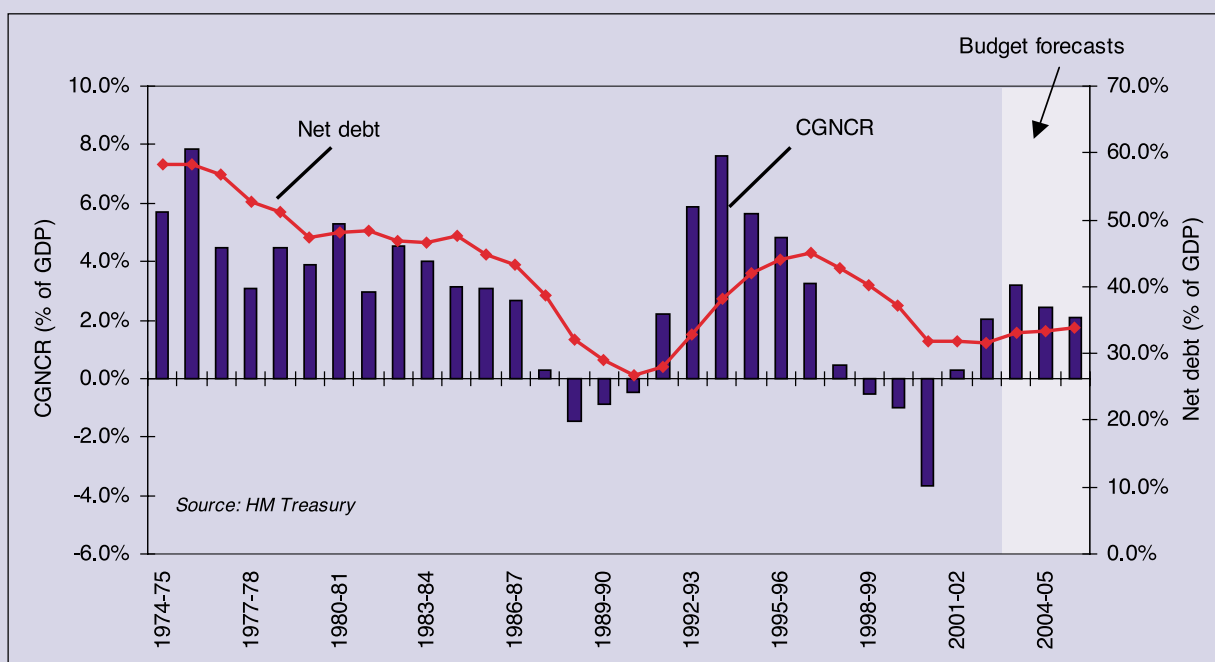


Chart A shows net debt and CGNCR including Budget forecasts to 2005-06. Despite sustained weakness in the world economy, net debt is expected to remain low and stable, rising slightly from 31 per cent to stabilise around 33 per cent of GDP over the forecast period. This comfortably meets the sustainable investment rule by remaining well below 40 per cent. CGNCR is forecast to rise to around 3.2 per cent of GDP in 2003-04, before falling back to around the levels of 2002-03 in the following years.

The soundness and sustainability of the public finances are reflected in the fact that credit rating agencies consistently give the UK government the highest possible credit rating available. Credit ratings provide an assessment both of how robust the government's ability is to service its current level of debt and how sustainable future levels of debt are under current economic and political policies.

The UK government's diversified debt structure also contributes to its consistently high credit rating. For example, the portfolio of central government sterling debt is diversified across a variety of borrowing instruments ranging from conventional gilts (which account for 58% of total UK central government sterling debt); index-linked gilts (21%); Treasury bills (4%); and National Savings and Investments' instruments (17%). Treasury bills are issued for the Exchequer's cash management purposes. Moreover, the long average maturity of the UK Government's debt portfolio reduces the need to refinance large proportions of the debt portfolio at any one time. Additionally, it should be noted that the UK government routinely hedges any foreign currency exposure incurred through foreign currency liabilities, thereby minimising exposure to exchange rate risk.

UK GOVERNMENT'S DEBT AND CASH MANAGEMENT POLICY

Objectives of debt management

The Government's debt management policy objective remains:

“to minimise over the long term, the costs of meeting the Government's financing needs, taking into account risk, whilst ensuring that debt management policy is consistent with the aims of monetary policy.”

The debt management policy objective is achieved by:

- pursuing an issuance policy that is open, predictable and transparent;
- issuing conventional gilts that achieve a benchmark premium;
- adjusting the maturity and nature of the Government's debt portfolio, by means of the maturity and composition of debt issuance and other market operations including switch auctions, conversion offers and buy-backs;

- developing a liquid and efficient gilts market; and
- offering cost-effective savings instruments through National Savings and Investments.

Maturity and composition of debt issuance

In order to determine the maturity and composition of debt issuance, the Government needs to take account of a number of factors including:

- investors' demand for gilts;
- the Government's own attitude to risk, both nominal and real;
- the shape of both the nominal and real yield curves and the expected effects of issuance policy; and
- changes to the stock of Treasury bills and other short-term instruments required for cash management in 2003-04.

Risk management and the government debt portfolio

Introduction

HM Treasury and DMO maintain an active research programme keeping the debt management framework under review. This section looks at the progress being made with one element of this programme - the quantitative modelling of the characteristics of the debt portfolio (focussing solely on the gilts portfolio) under different issuance strategies over the long-term. Such modelling can be used to support the decision-making process on the appropriate long-term cost-risk trade-offs facing government and can help to increase public understanding of the decisions underpinning the debt management remit.

Since 1997-98, the *Debt and Reserves Management Report* has included a simple Stock-Flow Dynamics model, which looks at the impact of adopting different issuance strategies over the long-term and the resultant portfolios generated. This analysis is based on a single scenario regarding the path of future interest rates, inflation and the government's financing requirements. The first section updates this work, while the second section introduces the current work programme, which extends that framework to encompass a more explicit model of the macroeconomic environment and to cover a wider range of scenarios.

Stock-flow dynamics

Table B below compares four issuance strategies under the Stock-Flow Dynamics model: two are extreme corner strategies, involving issuing either all short conventional gilts or all long conventional gilts; one involves a mix of short and long conventional gilts; and one is a fairly evenly balanced strategy which closely matches the issuance pattern pursued in financial year 1997-98. This final strategy is the only strategy that incorporates issuance of index-linked gilts, with this issuance distributed evenly across the curve. As in last year's report, for illustrative purposes, the calculations assume an annual £5 billion central government net cash requirement (CGNCR). Figures include indexation uplift on index-linked gilts. Future prices and inflation are derived from forward curves and break-even inflation rates, respectively, calculated from the observed yield curves on a representative day in February 2003. Table B shows the relationship between the different issuance strategies and their resultant portfolios under these assumptions.

Table B: Illustrative issuance strategies and the resultant debt portfolio

Issuance Strategy					Resulting Debt Portfolios (2027)				
Strategy	Issuance Split(%)				Issuance Split(%)				Ave. Maturity (yrs)
	Index-linked	Conventional			Index-linked	Conventional			
		Short (0-7yrs)	Medium (7-15 yrs)	Long (15 yrs+)		Short (0-7yrs)	Medium (7-15 yrs)	Long (15 yrs+)	
FY 1997/98	20	28	24	28	24	35	18	23	10.7
50% short, 50% long	0	50	0	50	1	37	24	39	11.9
All short	0	100	0	0	1	99	0	0	2.9
All long	0	0	0	100	1	27	29	43	13.2

Charts B1 to B4 illustrate the evolution of the current portfolio under the above issuance strategies.

Chart B1: Portfolio composition if 1997-98 remit issuance pattern is repeated

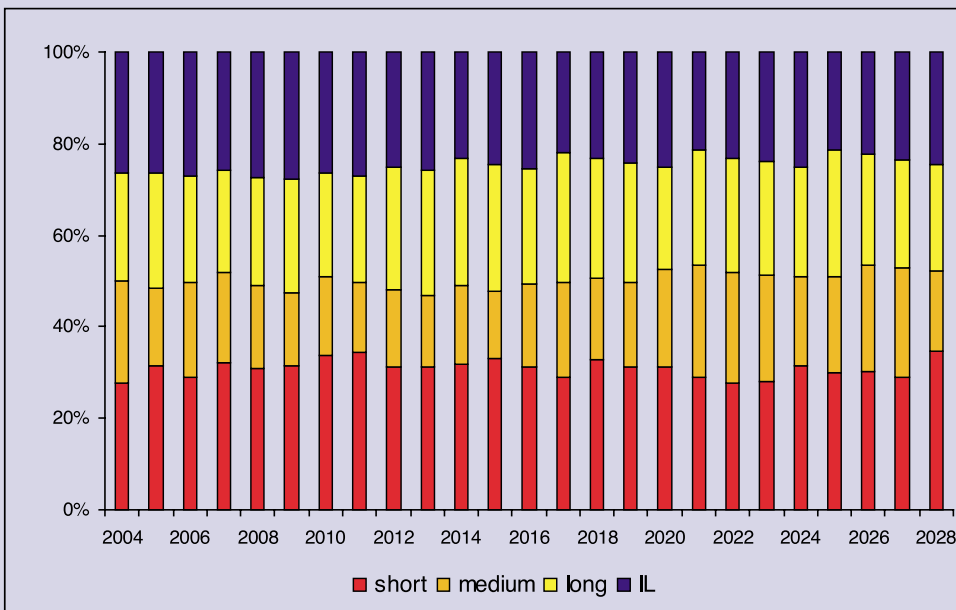


Chart B2: Portfolio composition if 50% short and 50% long conventional issuance

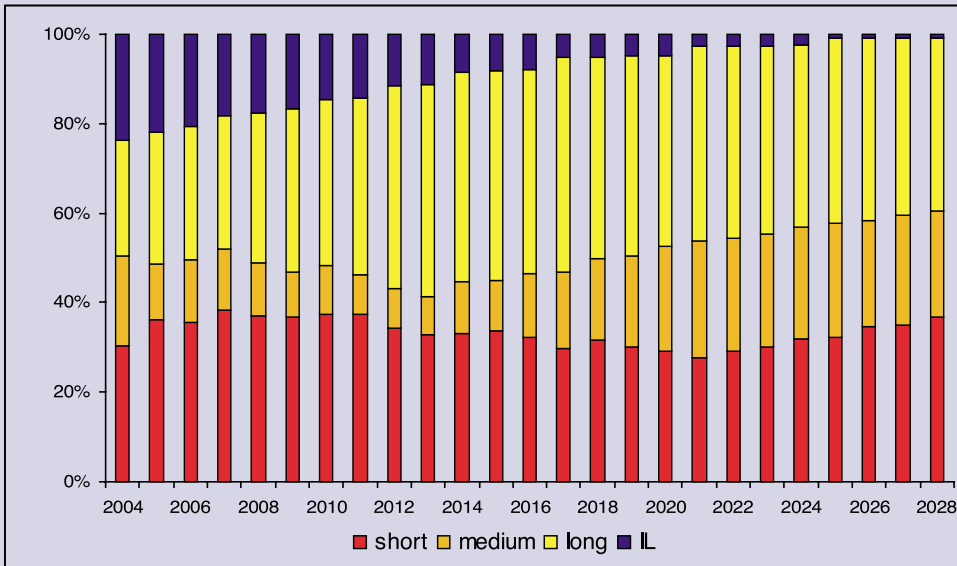


Chart B3: Portfolio composition if only short conventional issuance

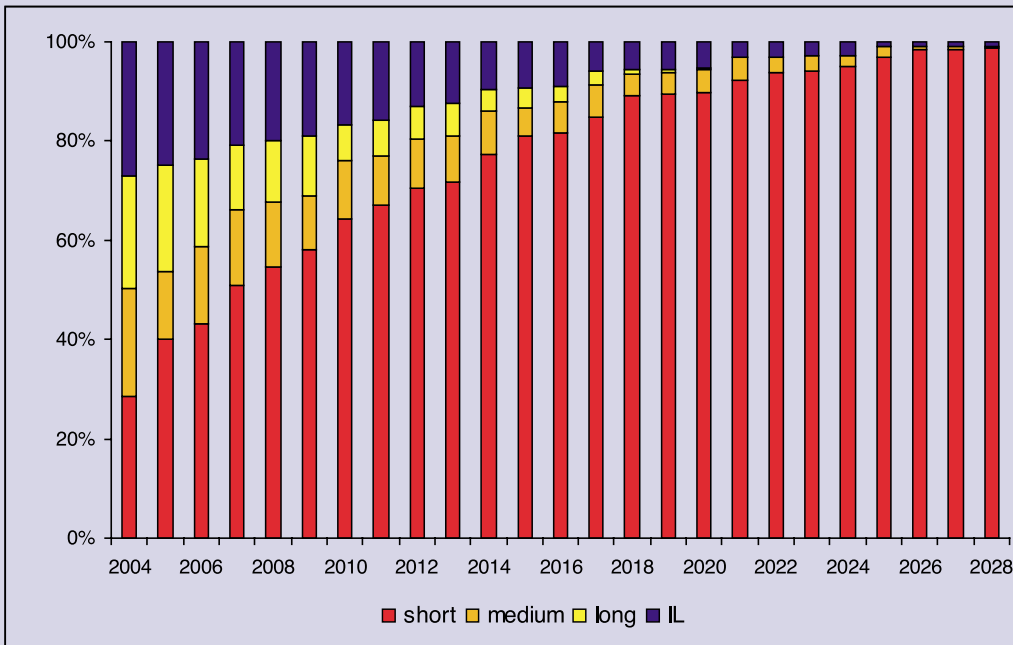
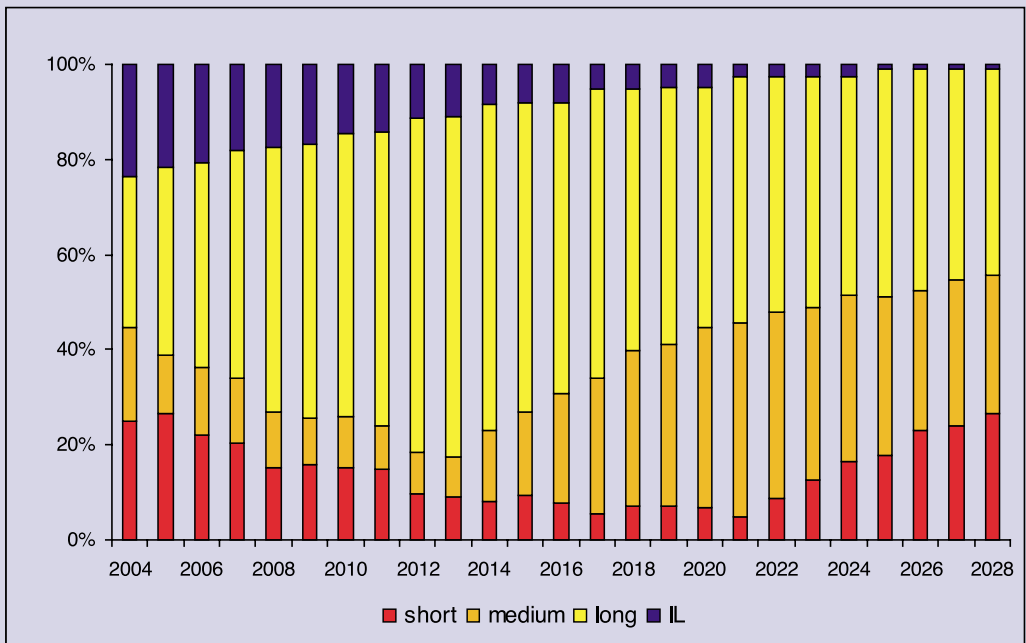


Chart B4: Portfolio composition if only long conventional issuance



Clearly the proportion of index-linked gilts declines to close to zero under all strategies except that illustrated in Chart B1. As discussed in the DMO's Annual Review 2000-01, it may be appropriate to maintain some proportion of index-linked bonds in the debt portfolio to mitigate the impact of deflationary or demand shocks. Under these shocks, index-linked debt offers attractive tax-smoothing properties. The charts also show that even if no medium gilts are issued, then as long as the proportion of long issuance is substantial, the proportion of mediums in the portfolio will recover once the long gilts begin to age.

Stochastic modelling and simulations

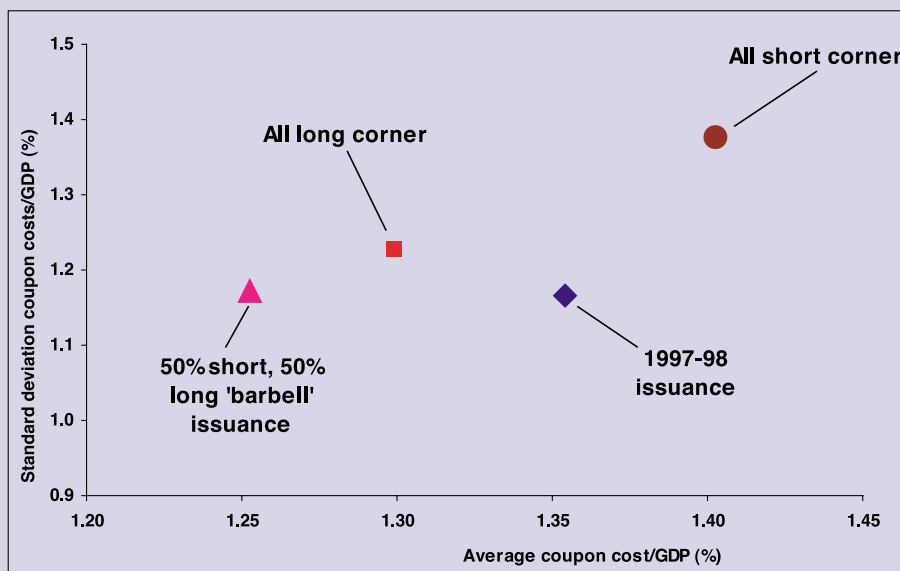
In contrast to the (relatively) basic model outlined above, where only one scenario is generated (i.e. a single term structure and a single set of outcomes for the government financing requirement), debt managers³ are increasingly using stochastic simulation models to help quantify the dynamic relationships between the evolution of the debt portfolio, debt interest charges and the associated risk(s) to the fiscal agent. The purpose of the stochastic simulation process is to generate a distribution of potential outcomes rather than to forecast any specific future economic state and/or consequent debt service costs.

For the government's risk management purposes the fiscal risk considered below is measured in terms of the volatility of future debt interest costs due to refinancing debt at unknown future interest rates. Consequently, the DMO has focused on developing a model to identify the expected debt service costs relative to the risk of an increase in budgetary outlays due to interest rate rises under differing issuance strategies, commonly called "cost-at-risk"⁴.

The government's budget situation is largely determined by the state of the real economy and inflation, and there is considerable evidence that these factors also affect the shape of the term structure of interest rates. The DMO uses an economic model to simulate future economic cycles in a manner that is broadly consistent with past behaviour and that projects inflation, arbitrage-free term structures of interest rates and the government financial position. The time series of economic variables produced are internally consistent to the degree that the parameters that generate the projections are estimated using historical data observed over the last twenty years. The final output is the evolution of the debt portfolio and debt service costs assuming that a particular issuance rule is adopted.

Charts B5 and B6 summarise two measures of cost-at-risk using 5,000 simulations over a 25-year time horizon for portfolios formed by the same four issuance policies used in the above Stock-Flow Dynamics approach. The "expected cost-at-risk" measure shows the average coupon cost as a proportion of GDP over the 25-year period relative to the standard deviation of those coupon costs as a proportion of GDP. The model focusses on the coupon cost because this represents the debt servicing cost and is part of the primary budgetary outlay. The "absolute cost-at-risk" measure shows the upper bound of the distribution of coupon costs as a proportion of GDP using a 95% confidence level. The optimal issuance strategy would seek to minimise government financing costs for a given level of risk, and hence would tend towards the bottom left portion in Chart B5 and the lowest level in Chart B6.

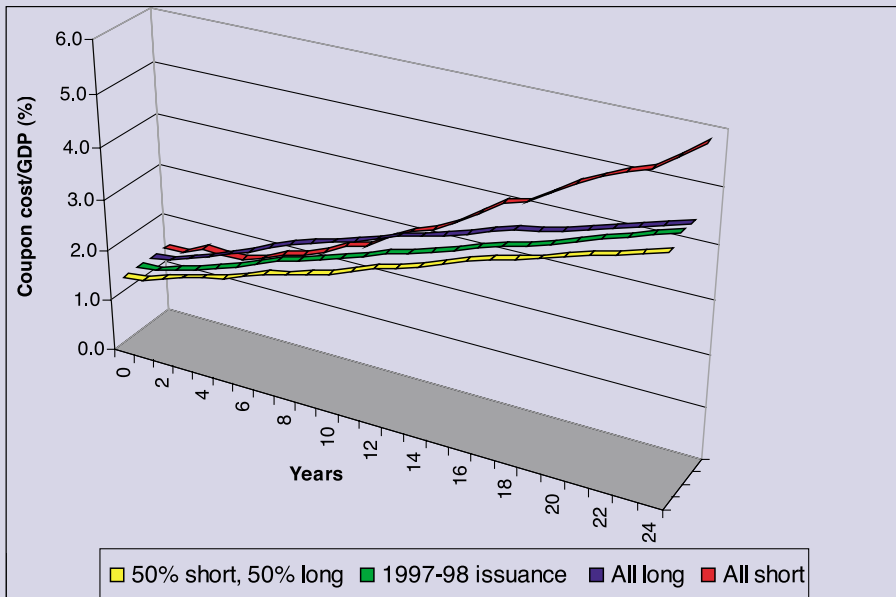
Chart B5: Expected cost-at-risk



³ See for examples, *Dutch Government Securities 2003*, (section 4), Dutch State Treasury Agency, Ministry of Finance of the Netherlands (2003), and *Danish Government Borrowing and Debt 2002*, (chapters 5 and 10), Danmarks Nationalbank (2003).

⁴ The DMO has focussed on real costs and risks measured in terms of debt interest costs as a proportion of GDP, (rather than in nominal cash terms).

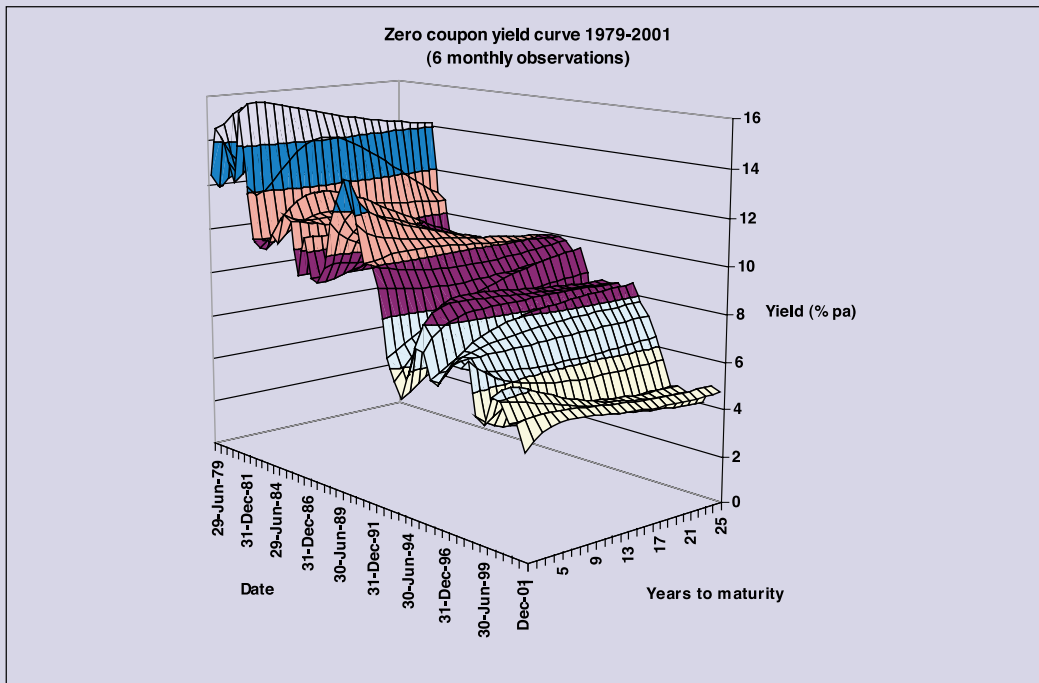
Chart B6: Absolute cost-at-risk



The results in Charts B5 and B6 run counter to standard economic theory, which is predicated on an assumption of a “normal” upward-sloping yield curve and that short maturity interest rates are more volatile than longer maturity rates. That would suggest that short bonds should be on average cheaper than long bonds, but with long-term interest rates less volatile (and hence less risky) than short-term rates. In contrast, Chart B5 indicates that an issuance policy of long maturity bonds, as represented by the all long (30-year) issuance strategy, is more stable, as expected, but cheaper than a strategy of issuing all short maturity bonds. This result would imply that the government should bias issuance toward the long-end.

However, in interpreting these early results it must be remembered that the outcomes are the product of the model's specifications, which are derived from the observed relationships over the last 20 years in the UK. In particular, Chart B7 shows that the UK's yield curve has been inverted for much of the period i.e. interest rates for medium (and often short) maturities were higher than at the long-end. The zero coupon yield on conventional gilts with two years to maturity averaged 9.1%, with a standard deviation of 3.1%, between June 1979 and December 2001, while the average yield and standard deviation for conventional gilts with 25 years to maturity were 8.7% and 2.3% respectively.

Chart B7: Zero coupon gilt yield curves (1979-2001, 6-monthly observations)



Notes

1. Chart B7 shows that yields were higher at all maturities further back in time (e.g. reading along the "Date" axis from June 2000 back to June 1979, it is clear that yields were higher at all points in 1979 and the early 1980s (light blue area) than in more recent years (yellow area).
2. Chart B7 also shows that the yield curve has been inverted for sustained periods during the last twenty years. For example, reading along the "Years to maturity" axis from 1 to 25 shows yields have often been higher at shorter maturities (e.g. 5-year) than at longer maturities (e.g. 25-year).

Consequently, although the yield curve can be inverted for substantial periods of time (due to specific demand, supply or structural factors), the assumption underlying most financial models, and the experience from most developed countries, would be for a "normal" upward sloping yield curve to hold over the long-run. This would significantly alter the long-term cost-risk trade-off shown in Charts A5 and A6 and consequently the government's decision about its optimal issuance strategy.

This work is at an early stage and the DMO, in consultation with HM Treasury, is working to refine and develop the model further to take account of possible changes to the economic environment, including incorporating different yield curve specifications. Work for the future also includes considering the performance of issuance rules under various stress tests. It is hoped that this work might eventually be widened to take account of the whole of the government's financial balance sheet.

Central Government's Asset and Liability Risk Monitor

In last year's *Debt and Reserves Management Report* the Government published a preliminary version of the central government's asset and liability risk monitor. The monitor is being produced in order to aid quantification of the risks faced by central government on its balance sheet and forms part of an ongoing HM Treasury work programme.

Over 2002-03, improvements to the coverage of the monitor have been made. Most notably, these reflect the incorporation of the activities of the Commissioners for the Reduction of the National Debt (CRND) and the Public Works Loan Board (PWLB) into the Debt Management Office in July 2002.

The monitor should be regarded as a "work in progress" because it records only current financial assets and liabilities of central government (for example it does not include central government's contingent liabilities) and some of the calculations involve approximating assumptions. Therefore, it cannot be reconciled with other central government accounting publications and is unaudited.

The monitor is a precursor to the publication of "Whole of Government Accounts" in 2005-06 and is in accordance with the transparency and accountability recommendations published in the International Monetary Fund's "Guidelines on Public Debt Management", 2001⁵.

Table C below sets out the monitor at end-December 2002. The nominal value of central government financial assets was £128 billion and the nominal value of financial liabilities was £442 billion.

Average maturity in Table C indicates the average length of time before assets and liabilities are due to be redeemed. Average maturity was 10 years (for assets) and 8½ years (for liabilities) at end-December 2002. Changes in average maturity of assets can be brought about by factors such as changes to the average length of loans made by the National Loans Fund. On the liabilities side, changes can be brought about by factors such as the gilts issuance strategy. For example increased issuance of long-dated gilts will increase average maturity, other things equal.

Average modified duration is a measure of interest rate risk. In the context of the monitor, duration offers some indication of how great an impact small interest rate changes might have on the market value of the portfolio of central government financial assets and liabilities. Longer duration suggests a greater degree of sensitivity to interest rates changes.

⁵ Guidelines on Public Debt Management can be found on the IMF's website at: <http://www.imf.org/external/np/mae/pdebt/2000/eng/index.htm>

Table C: Central Government's Asset and Liability Risk Monitor at 31 December 2002

ASSETS

Managing Organisation or HM Treasury Agent	Nominal value (£ bn) ¹	Market value (£ bn)	Maturities of less than 1 year (£ bn) ¹	Modified duration (yrs) ²	Average maturity (yrs)	Floating rate composition (£ bn)
Public Works Loan Board (loans to local authority)	45.9	56.8	2.0	10.4	19.9	1.7
Debt Management Office						
<i>Gilts held by DMO</i>						
Marketable conventionals	8.4	9.8	0.9	5.9	9.1	-
Marketable index-linked	2.0	2.1	0.0	8.2	10.2	-
Total	10.5	11.9	0.9	-	9.3	-
<i>Gilts held in central government funds by the Commissioners for the Reduction of the National Debt (CRND)</i>						
Marketable conventionals	0.1	0.1	0.0	10.7	13.2	-
Non-marketable conventionals	18.6	20.4	5.1	3.4	4.2	-
Non-marketable index-linked	1.4	1.4	0.0	8.1	9.5	-
Total	20.1	21.9	5.1	-	4.6	-
<i>CRND loans to local authorities</i>	0.3	0.3	0.3	0.0	0.0	-
<i>Other short-term bills held by CRND in CG funds</i>	3.6	3.6	3.6	0.1	0.1	-
<i>Other short term assets</i>						
Reverse repos - outstanding	5.3	5.3	5.3	0.0	0.1	-
Deposits at commercial banks	0.0	0.0	0.0	0.0	0.0	-
Cash deposit at the Bank of England	0.2	0.2	0.2	0.0	0.0	-
Sterling Certificates of Deposit	0.0	0.0	0.0	0.0	0.0	-
Sterling Commercial Paper	1.0	1.0	1.0	0.1	0.1	-
FX Commercial Paper	0.9	0.9	0.9	0.1	0.1	-
Total	7.4	7.4	7.4	0.0	0.1	-
Bank of England						
<i>Sterling assets</i>						
Sterling leg of swaps and FX liabilities ³	11.9	11.9	3.4	1.5	1.7	11.9
<i>Foreign currency assets</i>						
Bonds	15.5	16.8	3.0	2.1	2.4	0.0
Money Market Instruments	0.3	0.3	0.3	0.1	0.1	-
Short-term assets ⁴	3.0	3.0	3.0	0.1	0.1	-
Gold ⁵	2.1	2.1	-	11.1	-	-
IMF Special Drawing Rights	0.2	0.2	-	0.0	-	0.2
HM Treasury						
<i>Sterling assets</i>						
National Loans Fund loans ⁶	3.1	3.1	0.1	9.8	16.7	-
<i>Foreign currency assets</i>						
IMF Reserve Tranche Position	3.8	3.8	-	0.0	-	3.8
Total:^{7,8}	127.8	143.2	29.1	5.6	10.2	17.6

DEBT AND RESERVES MANAGEMENT REPORT 2003-04

LIABILITIES

Managing Organisation or HM Treasury Agent	Nominal value (£ bn) ¹	Market value (£ bn)	Maturities of less than 1 yr (£ bn) ¹	Modified duration (yrs) ²	Average maturity (yrs)	Floating rate composition (£ bn)
National Savings and Investments	61.9	61.9	10.6	4.4	4.5	38.6
Debt Management Office						
<i>Gross gilts in issue⁹</i>						
Marketable conventionals ¹⁰	213.0	245.2	23.6	7.0	10.5	-
Non-marketable conventionals	26.1	28.3	7.2	3.2	4.0	-
Marketable index-linked	71.0	75.9	0.0	11.3	14.1	-
Non-marketable index-linked	1.4	1.4	0.0	8.1	9.5	-
Total	311.4	350.7	30.7	-	10.8	-
Treasury bills	21.4	21.3	21.4	0.1	0.1	-
Other short-term bills	5.1	5.1	5.1	0.1	0.1	-
Total	26.5	26.3	26.5	0.1	0.1	-
<i>Other short-term liabilities</i>						
Repos outstanding	6.8	6.8	6.8	0.0	0.1	-
Deposits made by local authorities and commercial banks	0.7	0.7	0.7	0.0	0.0	-
Total	7.5	7.5	7.5	0.0	0.1	-
Bank of England						
<i>Sterling liabilities</i>						
Ways and Means Advance	13.4	13.4	-	0.0	-	13.4
<i>Foreign currency liabilities</i>						
HMG Bonds	1.3	1.4	1.3	0.1	0.1	-
Loans ¹¹	0.4	0.4	0.2	1.7	2.3	-
Repos	1.6	1.6	1.6	0.1	0.1	-
Swaps & FX liabilities (excludes £ leg) ³	10.9	11.7	3.0	1.6	1.6	10.9
IMF Special Drawing Rights allocation	1.6	1.6	-	0.0	-	1.6
HM Treasury						
<i>Sterling liabilities</i>						
IMF non-interest bearing securities	5.4	5.4	-	0.0	-	5.4
Total^{7,8}	441.8	481.9	81.4	4.4	8.5	69.9

Numbers may not sum due to rounding

- Nominal value of index-linked gilts includes inflation uplift.
- Modified duration of index-linked debt is calculated with respect to changes in real yields.
- Modified duration covers only swaps.
- Short-term assets are composed of reverse repos and deposits.
- Modified duration of gold is calculated as the 30-day moving average volatility of spot gold prices.
- National Loans Fund loans are composed of loans to nationalised industries and public corporations.
- Totals for modified duration are weighted by market values (excluding the gold volatility measure and duration of index-linked gilts).
- Totals for average maturity are weighted by market values.
- Non-marketable gilts are held by the Commissioners for the Reduction of the National Debt (CRND).
- Includes the 2½% Index-linked Treasury 2003. At end-December 2002, 2½% Index-linked Treasury 2003 is treated as a conventional gilt because the final inflation uplift on principal and coupon had already been determined.
- Composed of Canadian and US war debt.

Cash management operations

The DMO's main strategic objective in carrying out its cash management role⁶ is:

“to offset, through its market operations, the expected cash flow into or out of the National Loans Fund (NLF) on every business day, in a cost-effective manner with due regard for credit risk management.”

The DMO's money market dealers borrow from, or lend to, the market on each business day to balance the position in the NLF. In order to do so, the DMO receives (from HM Treasury) forecasts for each business day's significant cash flows into and out of central government. Additionally, the DMO requires up-to-date intra-day monitoring of cash flows as they occur.

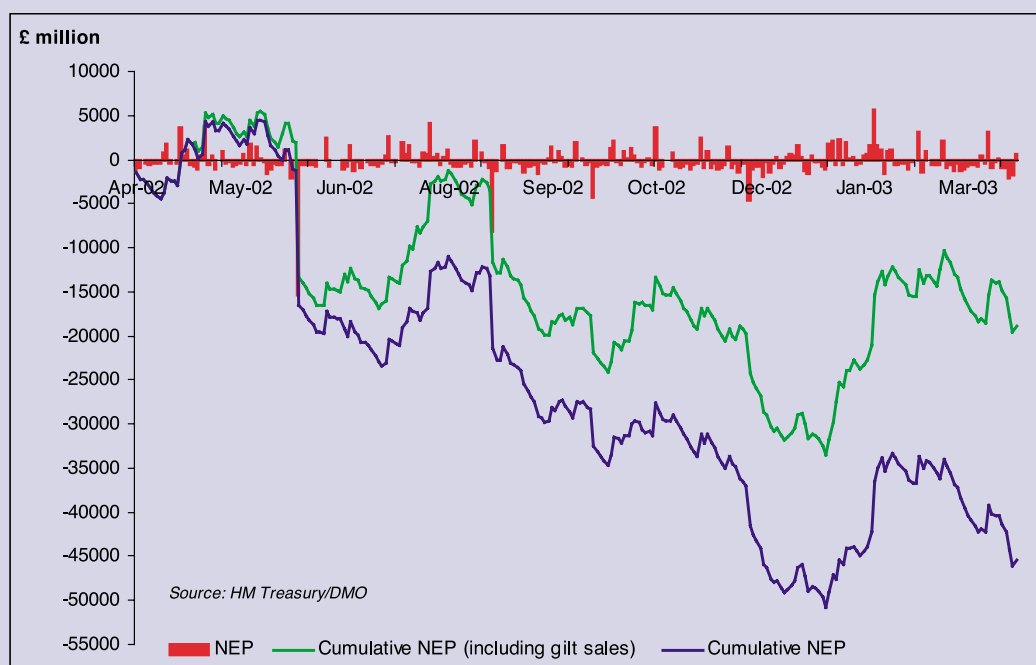
Over the course of the financial year, the Exchequer's cash flow has a fairly regular pattern associated with the tax receipt and expenditure cycles and also outflows associated with gilt redemptions. Chart 2 below shows the scale of daily cash flows in 2002-03 - the major change from previous years was in the level of the overall central

government net cash requirement - which was significantly further in deficit. Chart 2 excludes the effects of the management of the DMO's net cash position of Treasury bill issuance, the rundown of the DMO's net cash position, and NS&I's overall net contribution to government financing.

The increase in the deficit required a general increase in the stock of outstanding Treasury bills in order to help manage seasonal cash outflows. The stock began the financial year at the remit target of £9.7 billion, but following the introduction of tenders for six-month bills and increases in the sizes of tenders of one- and three-month bills, the stock climbed steadily to around £22 billion by end-December 2002. The stock was reduced to £19.3 billion by end-January 2003 ahead of expected cash inflows associated with payments of corporation tax. The stock outstanding at end-March 2003 was £15.0 billion (see Chart 3).

Additionally, in order to aid the efficient execution of the DMO's cash management operations, on 6 June 2002 HM Treasury issued an additional £3.1 billion (nominal) of gilts to the DMO to be used as collateral. This was in line with the provisions of the DMO's cash management remit.

Chart 2: Daily and cumulative Exchequer cash flows 2002-03



⁶ A full description of the DMO's cash management objectives and operations can be found in "Exchequer Cash Management in the United Kingdom A DMO Handbook", available on the DMO website at: <http://www.dmo.gov.uk/publication/f2mon.htm>

Chart 3: Cumulative Treasury bill stock 2002-2003

