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1 Summary

The guidelines for central government debt management have a multiyear perspective to establish conditions for a central government debt policy that is predictable and long term in nature. This year's decision on the guidelines covers 2003 to 2005. The guidelines for 2004 and 2005 are preliminary and may later be changed.

The benchmark for foreign currency debt amortisations in 2003 is SEK 25 billion, with a possible deviation by the Swedish National Debt Office of SEK ±15 billion. The Debt Office is also in future to take costs and risk into consideration in strategic decisions on the rate of amortisation. However, the percentage of foreign currency debt is not to be taken into consideration in such decisions; that is, the extent to which the Debt Office has refrained from amortising the foreign currency debt in the past, for example, for exchange rate reasons.

The long-term aim is a reduction in the foreign currency debt as a percentage of the total central government debt and an increase in the percentage of kronor-denominated debt. The aim for 2004–2005 is an amortisation of SEK 25 billion a year. Under the assumptions stated in the guidelines on the development of the borrowing requirement and the krona's exchange rate, the percentage of foreign currency debt is expected to fall from about 33 per cent of the total debt in 2002 to about 27 per cent by the end of 2004.

The foreign currency mandate, that is, the benchmark for repaying the foreign currency debt, will be redefined and is to include those transactions that affect the central government's foreign currency exposure. The reason for the change is that since July 1, 2002, the Debt Office has been permitted to make

exchanges between kronor and foreign currencies with counterparts other than the Sveriges Riksbank.

The guidelines for the inflation-linked debt remain unchanged and therefore the percentage of inflation-linked borrowing in the central government debt will increase in the long term. The rate of increase will be weighed against the demand for inflation-linked bonds and the costs and risks of other borrowing. Inflation-linked borrowing is to be made with long maturities. The interpretation of the guideline on maturity allows for issuing inflation-linked borrowing of five years or longer.

That part of the financing requirement not covered by inflation-linked borrowing and borrowing in foreign currencies is to be met by nominal loans in kronor.

The benchmark for the average duration of the nominal krona debt and the foreign currency debt for 2003 to 2005 is to be 2.7 years, which is the same as in 2002. When establishing the benchmark portfolios for the nominal types of debt, the Debt Office may deviate from the stated benchmark by a maximum of ± 0.3 years.

A diversified maturity profile is to be an aim of debt management. The borrowing is to be managed so that no more than 25 per cent of the debt will fall due in the next twelve months.

2 Introduction

In 1998 the Sveriges Riksdag decided on a new formulation of objectives and a new decision-making structure for central government debt policy (Government Bill 1997/98:154, bet. 1997/98:FiU29, rskr. 97/98:253). The statute (1988:1387) on central government borrowing and debt management stipulates that the central government debt is to be managed in a way that will minimise the cost of the debt in the long term while taking into consideration the inherent risk. In addition, the debt is to be managed within the constraints imposed by monetary policy.

The statute also states that the Government is to decide no later than November 15 each year on the guidelines for the Debt Office's management of the central government debt for the next year. The Government will decide after the Debt Office has presented its proposed guidelines and the Riksbank has been given the opportunity to comment. The Debt Office submitted its proposed guidelines on October 2, 2002. The Riksbank's comments were received on October 28, 2002.

After the completion of each year of debt management, the Government is to present an evaluation of central government borrowing and debt management to the Riksdag no later than April 25. Over time, the evaluation has come to refer to all central government debt policy so that it includes both the Government's decision on the guidelines and the activities of the Debt Office.

3 The Basis for the Government's Guidelines[1]

3.1 The Structure of the Central Government Debt

The goal of central government debt policy is to minimise the long-term cost of the debt while giving due consideration to the inherent risk. The decision on the guidelines for managing the debt thus involves a trade-off between the total expected cost of the debt and the total risk that the central government is prepared to assume. Taking into account the interaction between different risks in the debt is important, not least because the total risk is not composed of the sum of the risks in the various portfolios.

The decisions on the guidelines therefore have to be designed so that the total central government debt will have the characteristics sought in relation to the goal for the debt policy. The main determinants of the debt's characteristics are the distribution between the three types of debt—nominal kronor-denominated borrowing, inflation-linked borrowing, and foreign currency borrowing—and the choice of maturity and amortisation profile for each kind of debt. Along with the total size of the central government debt, these factors are crucial in determining the expected total costs and total risk in debt management.

[1] Chapter 6, the Technical Appendix, gives a more detailed explanation of some of the core concepts such as foreign currency borrowing and debt management measures.

At the end of 2001 the central government debt came to SEK 1,157 billion (about 53 per cent of GDP)[2]. That is a reduction of more than SEK 123 billion since 2000. The most important factors in explaining the decrease are the transfers of bonds from the National Pension Insurance Funds (SEK 69 billion) and the Riksbank (SEK 19 billion). The central government budget surplus (SEK 39 billion) and the surplus liquidity by the Debt Office at the turn of the year 2001/2002 (SEK 10 billion)[3] also contributed. The value of the foreign currency debt moved in the opposite direction: despite amortisations of SEK 15 billion in 2001, it rose by SEK 12 billion. The weakening of the krona in 2001 is to blame for this development.

The Government's decision on the guidelines refers to all the debt issued by the Debt Office; that is, it also includes the debt held by other central government authorities. In addition, the decision in those parts of the guidelines that concern the structure of the debt requires the correct reporting of borrowing with a foreign currency exposure. This requirement means that debt management measures taken in foreign currency borrowing also have to be taken into account. To reduce costs, the Debt Office has chosen to borrow in Swedish kronor and then use currency swaps to convert the loans into foreign currency debt. In recent years these swaps have been the most common method of foreign currency borrowing. Today such debt management instruments represent almost half of the value of the foreign currency debt.

[2] Refers to the unconsolidated central government debt, i.e., the official debt that the Debt Office manages and reports. There is a report—mainly in the Budget Bill and the central government's annual report—of a measure of consolidated debt that eliminates the holding of government bonds by public authorities.

[3] Liquidity as a result of tax payments received late in December 2001.

Table 1. Structure of Central Government Debt Including Debt Management Measures at Year End, 1998-2001, and Projections for 2002 (SEK billions).

	1998	1999	2000	2001	2002
Nominal debt in kronor	920	874	801	676	651
Per cent	*62.4*	*63.6*	*61.8*	*57.5*	*55.8*
Inflation linked borrowing	94	97	102	95	135
Per cent	*6.4*	*7.1*	*7.9*	*8.1*	*11.6*
Foreign currency debt	459	402	393	404	380
Per cent	*31.2*	*29.3*	*30.3*	*34.4*	*32.6*
Total debt incl. debt mgmt.	**1 473**	**1 373**	**1 296**	**1 176**	**1 166**
Total debt excl. debt mgmt.	1 449	1 374	1 281	1 157	1155

Source: The Swedish National Debt Office.
Note: The foreign currency debt has been valued at the exchange rate in effect at year end. The valuation as of December 31, 2002 is based on closing exchange rates on October 17, 2002, which the Debt Office used in its most recent debt projections.

Nominal kronor-denominated borrowing traditionally represents the central government's most important source of financing. Most of the borrowing is in treasury bonds (loans with a maturity of more than one year) and treasury bills (loans with a maturity of generally less than one year). Borrowing in the domestic retail market—chiefly lottery bonds and National Debt Savings accounts—is also included in this type of debt. One new feature is National Debt Savings accounts with no time limit, which in a short time have generated deposits of about SEK 6–7 billion. The percentage of nominal kronor-denominated debt has decreased since the middle of the 1990s. Estimates are that it will amount to about 56 per cent by the end of 2002.

Inflation-linked borrowing offers investors the opportunity for protection against the risk of inflation. It offers the central government the opportunity to diversify its borrowing in kronor in the Swedish government securities market. In this way the total risk associated with the central government debt can be reduced. Since inflation-linked bonds were first issued in 1994, they have steadily increased as a percentage of central government debt. At the turn of the year 2001/2002, they amounted to more than 8 per cent of the debt. On July 1, 2002 some public authorities'

deposits[4] with the Debt Office were converted to government bonds in accordance with decisions by the Riksdag and the Government. The outstanding stock of inflation-linked bonds thus increased by about SEK 32 billion. Inflation-linked borrowing is estimated to represent about 12 per cent of the central government debt at the close of 2002.

The percentage of foreign currency borrowing increased rapidly at the beginning of the 1990s from 10 per cent to 29 per cent of the central government debt in the fiscal year 1994/95. Subsequently the percentage has remained relatively stable at about 30 per cent. However, in 2001 the percentage rose sharply to just over 34 per cent of the central government debt, chiefly owing to a substantial reduction in the total size of the debt and to the Swedish krona's weakness during the year, which meant an increase in the value of the foreign currency debt. The weak krona also means that amortisations of the foreign currency debt have been reduced because of the cost and came to a complete stop in 2002. The foreign currency debt is estimated to amount to about 33 per cent of the central government debt at the close of 2002.

[4] The public authorities concerned were the Deposit Guarantee Board [Insättningsgarantinämnden (IGN)], the Swedish Nuclear Waste Fund [Kärnavfallsfonden (KAF)] and the Premium Pension Authority [Premiepensionsmyndigheten (PPM)].

3.2 The Basis for the Decision on the Guidelines

The basis for the Government's decision: The long-term direction of debt management will include a reduction in the percentage of foreign currency debt and the consequent increase in kronor-denominated debt. In addition the Debt Office will continue to take into account the costs and risk in strategic decisions about the rate of amortisation of the foreign currency debt. However, the percentage of foreign currency debt is not to be considered in such decisions.

The foreign currency mandate, that is, the benchmark for repaying the foreign currency debt, is to include those transactions that affect the central government's foreign currency exposure.

The guidelines for the central government debt policy are to have a three-year perspective in order to create the conditions for long-term planning. The guidelines for 2004 and 2005 are preliminary and may be changed when decisions are being made in the future.

The consequences of a future membership in the monetary union (EMU) have not been taken into account in the decision on the guidelines.

Key Positions Taken in the Decisions on the Guidelines

In previous decisions on the guidelines, the Government has taken a position on a number of issues for the purpose of clarifying the principles and conditions on which central government debt policy rests. The time perspective, measures of costs and risk, and the long-term structure of the debt are among the issues that have been

considered. The key positions taken are summarised in the text that follows.

Time Perspective and Long-Term Planning

The goal of central government debt management is formulated in terms that are comprehensive and long range. This means that the focus is on the long-term perspective and the guidelines should indicate a strategic and multiyear direction. In addition, the core positions taken—for example, on the development of the central government debt structure and the strategic mandate for the maturity and the foreign currency amortisations—require the guidelines to be designed with a long-term perspective and advance planning since it takes time before there is any obvious impact on the nature and structure of the debt. Thus in recent years, the guidelines have established a three-year perspective, one reason being that it was natural for the perspective in the guidelines to coincide with the time horizon for the expenditure ceilings in the central government budget.

In the Budget Bill for 2003, the Government was of the opinion that it could not take a position on the expenditure ceiling and the target for the budget balance for 2005. Consequently, there were no projections for 2005—for example, on the borrowing requirement and central government debt. Such projections usually form part of the basis for decisions on guidelines. However, this should not be too problematic from a central government debt policy perspective. The guidelines for the last two years of the time perspective are preliminary and an expression of the Government's strategic direction in managing the debt. This direction is reviewed regularly in connection with the annual decisions on the guidelines. There is nothing to prevent the reconsideration of a long-term strategy in the light of new circumstances such as current developments in central government finances or the possible entry into the monetary union. Thus there is also room to adjust the guidelines if necessary. It is also possible to change guidelines that have already been adopted if

there are fundamental changes in the basis for the decision. However, changes in the guidelines are not to be gratuitous.

It is the Government's opinion that the advantages of stating a long-term direction for the central government debt policy outweigh the disadvantages. For that reason the Government has chosen to disregard the fact that the decision for the third year in the three-year perspective has a somewhat weaker basis than the first two years. This year's decision on the guidelines will, as usual, have a three-year perspective and will refer to the year 2003 and provisionally to 2004–2005.

Costs and Risk in Central Government Debt Management

The stated goal of central government debt management is to minimise the cost of the debt in the long term while due consideration is to be given the risk inherent in its management. The decision on the guidelines on what structure and maturity the debt should have thus involves weighing the expected costs and risk in managing the debt. In the guidelines for 2000, the Government noted that in a long-term analysis and evaluation, the costs of managing the debt should be measured in terms of the average running-yield-to-maturity[5]. The main reason is that the debt is long term in nature and the borrowing normally takes place with a large percentage of loans that remain outstanding until maturity. The superior measure of risk should thus be expressed as the risk of variations in this cost measure, that is, the average running-yield-at-risk. Other subordinated risks are the financial-savings-at-risk and the value-at-risk. The risk measures mentioned are nominal in character.

[5] The measure is defined as a weighted average of the issuing rates in the debt portfolio. The respective securities' nominal amount in relation to the total debt constitutes the weights. The issuing rates are the interest rates at which the securities were issued. Consequently the measure shows the costs in the form of the interest rate level expressed as a percentage.

The Government has subsequently noted that the risk in managing the debt should, in principle, be shown as the central government debt portfolio's contribution to fluctuations in the budget balance and the debt. This more real approach gets its inspiration from an Asset and Liability Management (ALM) technique[6] in which the basic idea is that financial risks can be minimised by matching the characteristics of the central government's debt with its assets. In an ALM approach, a debt portfolio that typically has low costs when the central government finances are weak (for example, as a consequence of a recession) is considered in an ALM analysis to be less risky than a portfolio in which the reverse is true. From the perspective of central government debt policy, the central government can thereby reduce the risk in management by trying to construct a debt portfolio in which interest costs and the surplus in the central government budget (excluding interest charges on the debt) are co-ordinated.

The Government is thus of the opinion that the ALM approach has distinct merits as a conceptual framework for analysing the central government finances and debt management but that it needs to be developed further to be operationally practicable. For the time being, both ALM-inspired and nominal measures of risk should therefore be used.

The Debt's Long-Term Structure and EMU

In the guidelines for 2001, the Government took a position on the strategic direction of the structure of the central government debt. The direction that it specified means that the percentage of foreign currency debt in the total debt should decline in the long term and the percentage of inflation-linked borrowing should increase.

[6] In conventional financial risk analysis [Asset and Liability Management (ALM)] risks can be minimised by matching the debts' characteristics with those of the assets. The principles were originally developed for companies in the financial sector.

The increase in the percentage of inflation-linked borrowing is chiefly motivated by the risk argument. Inflation-linked borrowing has been found in principle to have the opposite characteristics to nominal kronor-denominated borrowing. This comparison leads to the conclusion that the debt portfolio should contain both types of instruments. As well, when compared to foreign currency borrowing, the stock of inflation-linked loans appears to be less risky as the exchange rate for the krona is not explicitly included in the interest charges on the inflation-linked debt. Consequently the conclusion was that the percentage of inflation-linked bonds is too low and should increase for the purpose of risk diversification.

The decision to reduce the percentage of foreign currency debt in the long term was based on the grounds that the arguments for foreign currency borrowing have become weaker while the risks have become evident The risk premiums that had made domestic borrowing more expensive during the 1990s have gradually decreased, with the result that it has made it difficult to justify a large foreign currency debt for reasons of cost. At the same time, the foreign currency debt has been found to have relatively more risk than debt denominated in krona because the exchange rate for the krona directly affects central government interest charges and the value of the foreign currency debt. Matching and ALM arguments can be added to the preceding reasons because increased interest charges on foreign currency debt risk coinciding with increased budget deficits in times when for cyclical reasons the central government finances can be expected to be weak. A large foreign currency debt thereby risks strengthening the swings in the central government finances.

This conclusion and the assessments of the direction in which the debt structure is to be developed are still valid. In addition developments during 2001 and parts of 2002 have further underlined and illustrated the risk that a large percentage of foreign currency debt implies for the central government finances and debt. At the same time it is worth pointing out that there is no basis for establishing an optimal structure for the central

government debt in terms of the percentages for the various types of debt.

It should also be noted that a future membership in the monetary union (EMU) has not been taken into account in the decisions on the guidelines for debt management. A membership would mean a drastic reduction in the percentage of foreign currency debt from SEK 400 billion (about 34 per cent of the central government debt) to about SEK 155 billion (about 14 per cent of the central government debt), given the present currency allocation in the currency benchmark. The decision on joining the third stage of EMU will most likely provide grounds for revising the guidelines for foreign currency borrowing and other guidelines may also be affected. In this respect, the Government is of the same opinion as the Debt Office and the Riksbank.

Using the Flexibility in the Foreign Currency Mandate

The Debt Office has for some time had a mandate to deviate from the benchmark for the amortisation rate in the foreign currency debt. For the current year, this means that the Debt Office may deviate by SEK ± 15 billion from the amortisation benchmark of SEK 15 billion. This flexibility may be used to spread swings in the borrowing requirement between the krona market and the foreign currency markets if borrowing terms on the Swedish krona market should worsen substantially or to even out the amortizations over time, owing to major changes in the borrowing requirement in the future. In the guidelines for 2001, the Government clarified the possibility of the Debt Office taking the krona’s value into account in decisions on how the amortisation interval is to be used. The aim was to provide scope to avoid unnecessarily raising the cost of debt management in situations in which the value of the krona obviously deviates from what is perceived to be its warranted long-term level.

In this year’s proposal for the guidelines, the Debt Office states that it should also be able to take the percentage of the central government debt denominated in foreign currency into account in

decisions on how this flexibility is to be used, that is, the extent to which foreign currency amortisations have been delayed in previous periods, for example, owing to opinions on the exchange rate. The Debt Office would then be able to choose temporarily to amortise more than the foreign currency benchmark, even in situations in which the krona is not perceived to be overvalued. The aim should be to carry out the intention of reducing the percentage of foreign currency debt and thereby the risk in the central government debt.

The Riksbank states in its comments that it is difficult to see any immediate advantages in allowing earlier deferred amortisations to affect debt management during the year. Rather, the proposal by the Debt Office risks increasing the lack of transparency surrounding the reasons behind the decision on the amortisation rate for the foreign currency debt. However, there may be reasons to take the share of foreign currency debt into account in the decisions on the guideline for the medium-term amortisation rate. Deferred or greatly reduced amortisations in earlier periods increase the necessity of a relatively high aim for the medium-term amortisation rate. In addition, the Riksbank reiterates that deviations from the benchmark should only occur because of changes in the central government borrowing requirement.

Since the decision on the guidelines for 2001, it has been the Government’s aim to reduce the percentage of foreign currency debt in the total debt in the long term. In that respect, there is no difference of opinion between the Riksbank, the Debt Office, and the Government. Despite amortisations of SEK 15 billion in 2001, developments in the actual debt resulted in a rise in the percentage of foreign currency debt from about 30 per cent in the years before 2001 to about 33 per cent of the central government debt today. This development can be explained in part by the weakening of the Swedish krona during this period. The deviation from the established benchmarks (that is, deferred foreign currency amortisations) for 2001 and 2002 totals SEK 25 billion. All else being equal, this result means that the foreign currency debt is relatively larger than expected and thus there is a relatively greater

risk should the krona weaken considerably. To this extent, the Government shares the Debt Office's concern about the effects of deferring foreign currency amortisations into the future.

However, the Government has reservations about too broad a delegation of the possibilities for using the flexibility in the foreign currency mandate. The proposal introduces a new element into the mandate and would give the Debt Office more latitude in using the amortisation interval. In practice, the size of the amortisations within the constraints of the decided guidelines may vary considerably more than it can today. One disadvantage is the risk that the both the control and the evaluation functions of the amortisation benchmark will be weakened. Another risk also cited by the Riksbank is less transparency for market players.

It is the Government's conclusion that the existing delegation arrangements are carefully balanced and the Debt Office is not to take the percentage of foreign currency debt in the total central government debt into account in deliberations on how the foreign currency mandate is to be used.

A New Definition of the Foreign Currency Mandate

In the guidelines for 2002, the Government decided that, beginning July 1, 2002, the Debt Office would be able to make foreign currency exchanges in the market instead of only with the Riksbank as in the past. The change has brought about a revision of the principles for the foreign currency mandate, that is, the benchmark for net borrowing in foreign currencies as stated in the Government's guidelines. The Debt Office has therefore chosen to discuss the issue in its proposal for the guidelines. In the analysis of how the foreign currency mandate should be designed in the future, the Debt Office has applied a broad central government debt policy approach.

The current definition of the currency mandate is flow-based and has as its foundation how foreign currency borrowing in the central government debt affects the foreign currency reserve of the Riksbank. One alternative measure would be to establish a more

traditional perspective of portfolio selection, in which the guidelines for each period express how the debt is to be distributed among the various types of debt and what mandate the Debt Office has to deviate from the stated shares. That being the case, the guidelines are to give a multiyear trajectory for the development of foreign currency debt. According to the Debt Office, such a debt management system based on a percentage of total debt has several advantages, acting as a simple and straightforward control system as well as assuring the aim of reducing the proportion of foreign currency debt (and thus the risk) in the total debt in the long term. The disadvantage is that such a system risks forcing amortisations when the krona is weak (that is, when paying down the foreign currency debt is relatively expensive) and vice versa. The Debt Office therefore notes that a debt management system based on a percentage of total debt approach is difficult to reconcile with the goal of cost minimisation in the management of the foreign currency debt. In addition the aim of taking the krona into strategic consideration helps to move the foreign currency mandate further away from the management system from a percentage-based approach. There is also a risk that such an approach would focus too much on the percentage of foreign currency in the central government debt and thereby miss the importance of the size of the central government debt in terms of GDP.

In a balanced assessment, the Debt Office concludes that the foreign currency mandate should continue to be defined in terms of transactions. However, the definition should be revised to include all transactions affecting central government foreign currency exposure instead of the earlier definition of transactions affecting the Riksbank's foreign currency reserves. The foreign currency mandate thus includes the same transactions as it did earlier, that is, borrowing and derivative transactions and realised exchange rate gains and losses, but with the difference that exchange rate terms affect the mandate at the time that the transaction is contracted instead of the maturity date.

In the decisions on the guidelines, a more percentage-based approach has gradually been developed, chiefly in the guidelines

for the foreign currency debt and the inflation-linked debt. At the same time, the Government notes that on the basis of the argument stated by the Debt Office among others, it is no longer meaningful to design guidelines in terms of the percentage-based system. The argument on the relation between debt and GDP should also be added. A debt close to 50 per cent of GDP plausibly represents less of a threat to central government finances than a debt amounting to over 80 per cent of GDP like that of the mid–1990s (with a given percentage of foreign currency debt). The guidelines should therefore not be formulated in terms of foreign currency debt as a percentage of total debt. In the future the foreign currency mandate and the amortisations of the foreign currency debt should also be stated in terms of flows.

The definition of the foreign currency mandate proposed by the Debt Office seems reasonable and logical. Another attractive feature in the proposal is that it does not give rise to any adjustment of the benchmark for the amortisations of the foreign currency debt either this year or in succeeding years.

4 Decision on the Guidelines for Central Government Debt Management in 2003

4.1 The Foreign Currency Debt

The Government's decision: The foreign currency debt is to be amortised by SEK 25 billion in 2003. The aim for 2004 and 2005 is for the amortisation rate to amount to SEK 25 billion a year.

The Debt Office may deviate from the specified amortisation rate by SEK ±15 billion.

The Debt Office's proposal: Foreign currency as a percentage of the debt should decrease in the long term. The proposed benchmark for the amortisation of the foreign currency debt in 2003 is SEK 25 billion. The Debt Office should be permitted to deviate from the stated rate by SEK ±15 billion. The aim for the amortisation of the foreign currency debt in 2004 and 2005 should be SEK 25 billion.

The Riksbank's comments: The Riksbank shares the view of the Debt Office and thinks that the Debt Office's choice to abstain from amortisations in 2002 strengthens the argument.

Reasons for the Government's decision: As before, the Government thinks that the decision on the guidelines should be based on long-term and strategic considerations about costs and risk in central government debt management. The long-term aim of the

foreign currency amortisations should thus be founded on what is thought to be an appropriate structure for the central government debt. Current exchange rates and exchange rate forecasts should not be a part of the analysis if the krona's exchange rate does not deviate markedly from a level that can be regarded as warranted in the long term. In addition the krona's exchange rate and the exchange rate outlook can change rapidly. Instead it is the responsibility of the Debt Office to adjust the amortisation rate within the prescribed foreign currency mandate, based on a strategic view of the exchange rate for the krona.

Normally the decision on the guidelines is made only once a year and it has a multiyear perspective. However, in extreme situations such as large changes in the borrowing requirement or sharp swings in the exchange rate, this does not preclude the Government from being compelled to adjust the guidelines during the course of the year. In addition, a decision on Sweden's entry into EMU may warrant changes to the guidelines in effect at that time. Such changes should not be made gratuitously.

Table 2. Foreign Currency Borrowing and Foreign Currency Debt, the Borrowing Requirement, Changes in the Unconsolidated Central Government Debt and the Size of the Debt and the TCW index (SEK billions and per cent).

	1998	1999	2000	2001	2002	2003	2004	2005
Govt. guidelines, Net foreign curr. borrowing	-25	-25	-25	-35[1]	-15	-25	-25	-25
Actual foreign curency borrowing, net	-26	-25	-27	-15	-	-	-	-
Foreign currency debt, per cent of total debt	31%	29%	30%	34%	p33%	-	-	-
Central govt. borrowing requirement[2]	-10	-82	-102	-39	-8.5	13	22	-
Central govt. debt, change[2, 3]	17	-75	-94	-124	10	1	22	-
Central govt. debt, size[3]	1,449	1,374	1,281	1,157	1,167	1,168	1,191	-
Central govt. debt, per cent of GDP	77%	70%	61%	53%	52%	49%	48%	-
TCW Index in 2003 Budget Bill, clos. rates	123	125	125	137	131	127	127	-

Source: Ministry of Finance. Forecasts for 2002–2004 have been extracted from the 2003 Budget Bill.

[1] In July 2001, the Government lowered the amortisation rate for the foreign currency debt to SEK 25 billion.

[2] The borrowing requirement in any given year is not synonymous with the change in the size of the central government debt. Both the changes in the valuation of the foreign currency debt revaluation and transactions that affect the borrowing requirement, but not the reported central government debt and vice versa, have to be taken into consideration.

[3] Central government debt refers to the unconsolidated debt managed and reported by the Debt Office.

In last year's decision on the guidelines, the Government stated that the long-term amortisation rate would be SEK 25 billion in 2003 and 2004. The decision meant a reduction in the amortisation rate since the central government financial outlook and debt developments no longer appeared as favourable as before. In 2002 the benchmark for the foreign currency amortisation was reduced

to SEK 15 billion because of cost considerations[7]. Given the forecasts in the Budget Bill, these amortisations are expected to get the foreign currency debt down to about 27 per cent of the total debt by the end of 2004.

The starting point in establishing the benchmark for 2003 should be the long-term amortisation aim stated previously by the Government. Subsequently the preliminary benchmark will have to be qualified if the underlying analysis or other conditions have changed. The central government financial outlook and the estimated borrowing requirement have worsened somewhat compared with a year ago, but do not provide sufficient reason to deviate from the stated long-term direction. Developments in the krona's exchange rate next year are not expected to provide any reason to deviate from the benchmark. The Swedish krona has strengthened in 2002 and is expected to strengthen some more in 2003. The benchmark for 2003 may thus be set at SEK 25 billion.

The Government is of the opinion that the analysis of the long-term direction is still valid. The foreign currency debt as a percentage of central government debt should be reduced and the amortisation rate should be selected so that definite steps are taken in that direction. The available estimates of the public finances also support retaining the long-term direction unchanged. The amortisation rate for 2004 is thus set at SEK 25 billion. The same estimate is valid for 2005. (See also section 3.2, Time Perspective and Long-Term Planning). According to the projections for the borrowing requirement and exchange rate developments reported in the 2003 Budget Bill, foreign currency debt as a percentage of the total debt is expected to fall to about 27 per cent in 2004, even though no amortisations were made this year.

The Government is of the opinion that the interval around the amortisation benchmark should also in future amount to SEK ±15 billion. The mandate constitutes an appropriate trade-off between control and flexibility, given the position taken that the Debt Of-

[7] For the same reasons, the Debt Office has elected to use the flexibility of the interval around the foreign currency benchmark and in principle refrain from amortising the foreign currency debt in 2002.

fice is not to take into consideration the percentage of foreign currency in the central government debt in decisions on how the foreign currency mandate is to be used. (See also section 3.2: Using the Flexibility in the Foreign Currency Mandate).

4.2 Inflation-Linked (Kronor-Denominated) Debt

The Government's decision: Inflation-linked borrowing as a percentage of central government debt will increase in the long term. The rate of increase is to be weighed against the growth in demand for inflation-linked bonds and the borrowing costs of other types of debt, with due consideration for risk.

The Debt Office's Proposal: Inflation-linked borrowing as a percentage of central government debt should increase in the long term. The borrowing should be weighed against the growth in demand for inflation-linked bonds and the borrowing costs of other types of debt, with due consideration for risk.

Reasons for the Government's decision: In last year's decision on the guidelines, the Government endorsed the Debt Office's in-depth analysis of inflation-linked borrowing and the conclusions drawn from it. This analysis involves the deepening and development of the arguments for increasing the inflation-linked debt as a percentage of the central government debt, but no change in the guideline.

Inflation-linked borrowing is principally justified by the qualitative risk argument because long-term nominal borrowing and inflation-linked borrowing are, in important respects, mirror images. The debt portfolio should thus contain both types of bonds. Theoretically inflation-linked borrowing should also be cheaper on average than nominal kronor-denominated borrowing since the central government assumes the inflation risk for the investor and does not pay the inflation risk premium included in the nominal interest. However, this saving has decreased, especially in times of

low inflation, and other factors have offset this inflation-risk premium. For example, liquidity risk premiums in the market for inflation-linked bonds and investors' expectations that the inflation rate in the future will be less than the Riksbank's inflation target may play a role.

The Government's conclusion from previous year's stands and the guideline remains unchanged. The importance of retaining the arrangement delegating to the Debt Office the responsibility for the trade-off between minimising the expected costs and the possibility of reducing the risk should also be stressed. Until this market in inflation-linked bonds can be considered to be fully developed, the Debt Office should in future also be given considerable flexibility to take market conditions into account when deciding the rate at which inflation-linked bonds are to be issued.

4.3 Nominal Kronor-Denominated Debt

The Government's decision: In addition to inflation-linked borrowing and borrowing in foreign currency, central government financing needs are to be met by nominal kronor-denominated borrowing.

The Debt Office's proposal: Once the guidelines for inflation-linked borrowing and foreign currency borrowing have been stated, then by definition, the central government's remaining financial requirements will be met by nominal kronor-denominated loans.

Reasons for the Government's decision: Nominal kronor-denominated borrowing represents the difference between the central government borrowing requirement and borrowing in inflation-linked bonds and foreign currency. The kronor market thus functions as a buffer against swings in the borrowing requirement and possible changes in borrowing in the other two types of debt. It is traditionally the central government's most important source of financing and despite a declining share in recent years, it ac-

counts for about 72 per cent of the outstanding central government debt, excluding debt management measures[8]. The guidelines for foreign currency amortisation, the restrictions on the possibilities of issuing inflation-linked bonds and an increased net borrowing requirement mean that the nominal kronor-denominated borrowing will also be the central government's most important source of financing in the future.

It is also worth pointing out that the Debt Office chiefly creates foreign currency debt by issuing kronor-denominated loans that are then converted into foreign currency via swaps. Decisions on changes in the rate of amortisation thus do not fully affect the central government's issuing requirements in nominal kronor. In addition to providing cheap foreign currency borrowing, kronor/foreign currency swaps have contributed to preserving the way in which the krona market functions by a steady volume of issues, despite swings in the borrowing requirement. This has probably also had a favourable impact on central government borrowing costs in kronor.

4.4 Maturity

The Government's decision: For 2003 the average duration of the nominal kronor-denominated debt and the foreign currency debt is to be 2.7 years. The aim for 2004 and 2005 is for the duration to remain unchanged. When establishing the benchmarks for nominal loans, the Debt Office may decide on an average duration for the nominal debt that deviates by no more than ±0.3 years from the benchmark.

The inflation-linked borrowing will have a long maturity.

The Debt Office's Proposal: The benchmark proposed for the average duration of the nominal kronor-denominated debt and

[8] Including debt management measures, nominal kronor-denominated debt makes up about 56 per cent of the debt.

foreign currency debt should remain at 2.7 years. The aim for 2004 and 2005 is for the duration to remain unchanged. The Debt Office should be allowed to decide on benchmarks that yield an average duration of the nominal debt that deviates from the benchmark by no more than ±0.3 years. Inflation-linked borrowing should have a long maturity.

Reasons for the Government's decision: In the guidelines for 2000, the Government lowered the benchmark for the nominal debt from 2.9 to 2.7 years. The explanation for that decision was that the shorter maturity was expected to lead to lower average borrowing costs without appreciably increasing the refinancing risk. The stable growth in the public finances also made possible this somewhat different weighing of cost and risk in the central government debt portfolio. A maturity of 2.7 years was then considered an appropriate trade-off while shortening the maturities any further was considered too risky. This assessment still basically stands. The benchmark will therefore be kept unchanged at 2.7 years in 2003.

Table 3. Duration of the Nominal (Average During the Year) and Inflation-Linked (at Year End) Parts of the Central Government Debt (in Years).

	1997	1998	1999	2000	2001	2002
Nominal debt	3.1	3.1	2.9	2.9	2.7	2.6
Inflation-linked debt	11.9	11.5	10.7	10.6	9.6	10.5

Source: The Debt Office. The figures for 2002 are estimates.

The long-term direction is more uncertain. One factor pointed out by the Riksbank is the potential consequences of a possible membership in the monetary union. As an example, there is a risk that central government finances might fluctuate more in the event of a possible membership,as fiscal policy will become more important when monetary policy is managed by the ECB, based on development in the union as a whole. All else being equal, the maturity of the debt would then need to be extended with the aim of reducing the refinancing risks. A second possible uncertainty is developments in central government finances: an increase in the borrow-

ing requirement would warrant an extension of the maturity (and vice versa). However, the Government sees no new reason for adjusting the guideline on maturity. Therefore, the benchmark for the average duration of the nominal kronor-denominated debt and the foreign currency debt will continue to be 2.7 years.

The Debt Office already has the capacity to take strategic positions on the interval around the benchmark for the duration of the nominal debt. Such positions should be based on views on long-term interest rate developments. The Debt Office has thus far chosen not to make use of this possibility. Nevertheless, the Debt Office has the capacity to manage the uncertainty factors that may affect costs and risk in the central government debt in the near future. As previously, the deviation interval should be ± 0.3 years in 2003.

The guideline on the maturity of inflation-linked loans states that such borrowing is to have a long maturity. The guideline rests on the view that long maturities make the best use of the characteristics of inflation-linked bonds as uncertainty about inflation, and thus the inflation risk premium that the central government should be able to assume, increases over time. However, in last year's decision on the guidelines, the Government introduced the possibility of having the Debt Office issue inflation-linked loans with shorter maturities than before. The reason was that the cost difference between short- and long-term inflation-linked bonds has proved to be relatively small, and the market demand for the segment with the shorter maturity has periodically been high. The guidelines should therefore be interpreted as referring to issues of inflation-linked bonds with maturities of five years or longer.

4.5 Maturity Profile

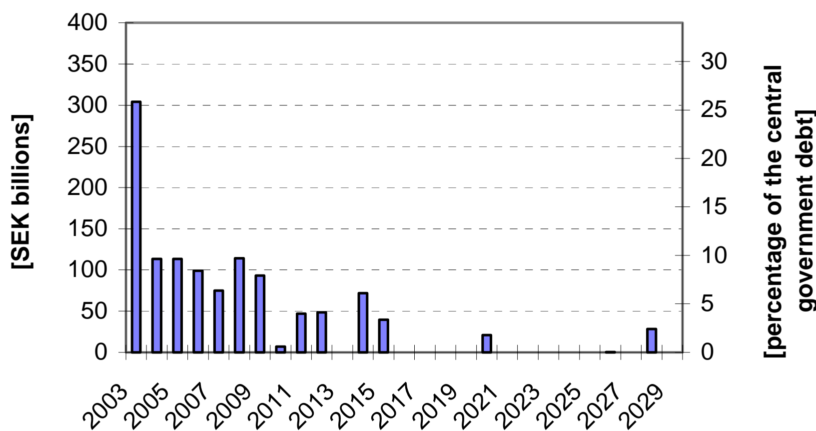
The Government's decision: The National Debt Office is to aim at a dispersed maturity profile for the central government debt. The borrowing should have as an objective that no more than 25 per cent of the debt falls due in the next 12 months.

The Debt Office's proposal: The Debt Office should aim at an evenly dispersed maturity profile in order to limit the refinancing risk. The borrowing should have as an objective that no more than 25 per cent of the debt falls due in the next 12 months.

Reasons for the Government's decision: A given maturity in the debt can be achieved in various ways. For example, the guideline for an average duration of the nominal part of the debt of 2.7 years can be achieved by concentrating the borrowing around the prescribed average or by concentrating the borrowing in short-term and very long-term maturity segments. As a consequence, the maturities will be more or less highly concentrated in time and the borrowing cost will depend on the interest rates prevailing at that time.

The diagram below shows that portion of the debt that falls due each year, based on the composition of the debt forecast for December 31, 2002. In 2003, SEK 304 billion, or 26 per cent of the debt, is expected to fall due.

Diagram 1. Expected Maturity Profile of the Government Debt at the End of 2003 (SEK Billion and Per cent of the Debt).



The guideline for the maturity profile is a complement to the benchmark for the average duration. Its aim is to limit the refinancing risks associated with the central government debt. In connection with the proposed guideline, the Debt Office has analysed the relationship between the duration and the maturity profile and how they affect the expected costs and risks of the government debt[9]. One conclusion is that the maturity guideline does not cover all the risks as intended. In theory, the share of the borrowing, rather than the maturities, is a better indicator of the risks in question. However, practical considerations and present conditions lead to the conclusion that in future the share of maturities should also be the subject of a guideline. A second conclusion is that the guidelines for the maturity profile and the average duration cannot be decided independently of each other. The maturity guideline acts as a restriction on the duration and vice versa.

The overall impression is that the need for and the form of the maturity guideline are disputable. In last year's decision on the guidelines, the Government abolished the ceiling on the share of the debt falling due (30 per cent of the debt). The main reason for doing so was that the ceiling could increase the costs of the debt management without actually controlling the risks. The present, more flexible guideline obviates the need for an immediate revision. In its next proposal for the guidelines, the Debt Office should come back with proposals for the best ways of defining and managing the refinancing risks.

[9] Report from the Swedish National Debt Office 2002-09-25; Duration, maturity profil and the risk for increased costs in central government debt management.

5 Evaluation of Central Government Borrowing and Debt Management

The Government's decision: The Debt Office is to establish internal guidelines for 2003 based on the Government's guidelines. The internal guidelines are to contain the benchmark for each type of nominal debt and will be evaluated from both a qualitative and quantitative perspective. The quantitative evaluation will refer to absolute costs and will, as much as possible, be compared with the Government's guidelines, with due consideration given to risk. The evaluation of the choice of foreign currency benchmark will be mainly qualitative.

Two stylised calculations in which the amortisations will be evenly spread over the year will be used to evaluate the Debt Office's management of the foreign currency mandate. The one calculation will correspond to the benchmark in the guidelines; the other will correspond to decisions by the Debt Office.

There will be a quantitative evaluation of the operational management of the foreign currency debt. The costs of the debt based on market value will be compared with the costs of the benchmark portfolio for the foreign currency debt. Strategic foreign currency positions will be evaluated in the same manner.

The Debt Office's management of foreign currency trades is determined by its establishment of a relatively even distribution of exchange transactions over the year. Possible deviations will be evaluated by estimating differences in costs between the trajectory for foreign currency exchanges that are neutral in terms of the outcome and the actual trajectory.

The inflation-linked debt will be evaluated principally in qualitative terms. In addition the cost difference realised between borrowing in inflation-linked bonds and nominal government bonds is to be reported.

Background

Under the law (1988:1387) on central government borrowing and debt management, the Government is to evaluate the management of the central government debt in a written communication to the Riksdag by April 25 every year. The evaluation aims at facilitating both a complete assessment of how debt management has been conducted and providing guidance on future decisions on central government debt policy. In addition regularly recurring evaluations provide incentives for reasoned and effective debt management. The evaluation of the management of the debt takes place on several levels. The written communication to the Riksdag includes an evaluation of the Government's decision on the guidelines as well as the Debt Office's borrowing and management of the central government debt.

The goal of central government debt policy is long term in nature and it is natural to conduct the evaluation using a time perspective in which temporary fluctuations in the result are smoothed out. The Government therefore uses moving five-year periods in its evaluation of debt management. The evaluation of the decision on the guidelines for 2003 will thus concern the years 1999 to 2003.

Evaluation of Central Government Debt Management in 2003

Evaluation of the Government's Guidelines

Previously the aim has been to evaluate the Government's guidelines against the goal for central government debt management. The evaluation should thus show how the guidelines have affected the long-term costs and risks in the debt. At the time of the decision on the guidelines, the Government should be able to choose between a number of stylised and differentiated debt portfolios whose characteristics have been analysed in the proposal by the Debt Office. The costs of the debt portfolio selected should then be able to be compared with the costs of the other portfolios.

In practice it has turned out to be difficult to live up to these principles because it proved to be more difficult than expected to make quantitative models that are sufficiently transparent and robust to make comparisons between various central government debt portfolios possible. The evaluation of the Government's guidelines should instead refer primarily to the strategic considerations that have formed the basis of a particular decision. The evaluation will thus be largely in qualitative terms. Quantitative estimates should be designed to support the analysis and the assessment as far as possible.

Evaluation of the Debt Office

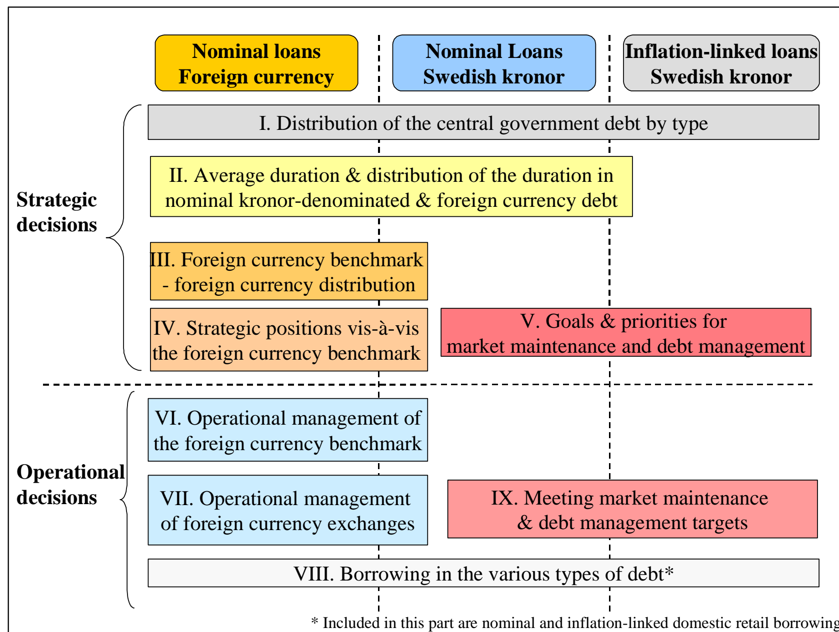
The Debt Office, under the constraints imposed by the goal of central government debt policy and the Government's guidelines, establishes more concrete instructions for its borrowing and debt management. The Board of the Debt Office establishes these internal guidelines, which can be called *strategic decisions*. O*perational decisions* on financing and managing the debt are made on an ongoing basis within the scope of these decisions

Strategic decisions should be evaluated in relation to the overall goal. Therefore the evaluation of the decisions should as far as possible refer to costs measured as the average running-yield-to-maturity. However, quantitative evaluations are not always meaningful. Qualitative assessments therefore form an important part of each evaluation of the Debt Office's management.

Operational management is carried out with the strategic decisions as its basis. The evaluation of the operational management has in view how well the strategic management objectives have been achieved or where appropriate, if the relative costs have been reduced.

Figure 1 gives a schematic picture of the evaluation of the Debt Office's strategic and operational decisions. The Roman numerals in the figure relate to the description of the evaluation in the following section.

Figure 1: Evaluation of the Debt Office's Strategic and Operational Decisions



The Debt Office's Strategic Decisions

The evaluation of strategic decisions concerns the Debt Office's internal guidelines established by its Board. These include several key decisions.

I. Decisions on the distribution of the debt between various types of debt within the intervals stated by the Government: The Debt Office's flexibility in this respect stems from the interval around the benchmark for the amortisation rate for the foreign currency debt and the guideline on increasing the percentage of inflation-linked borrowing.

The evaluation of the Debt Office's management of the foreign currency mandate can be made with two simplified calculations in which the amortisations take place at a uniform rate over the year, with one equivalent to the benchmark in the guidelines and the other corresponding to the Debt Office's decisions. Using the actual amortisation profile is not meaningful as it presents an uneven pattern. Decisions on using the foreign currency mandate have been based on long-term assessments and should thus be evaluated from that perspective. The final result of a decision—for example, to reduce the amortisations for a specified period—is at hand only when the amortisation is actually carried out. Consequently the assessment of whether it was correct to take such a decision must, to a considerable extent, concern whether the analysis on which the decision is based appears reasonable.

Other decisions on the distribution of the debt between different kinds of debt probably cannot be quantitatively evaluated in a meaningful way. As to the inflation-linked debt, the rate of increase is to be weighed against the costs and risks in the other types of debt.

II. Decisions on the benchmark for the nominal kronor-denominated debt and the foreign currency debt: They include the decisions on the average duration of the benchmarks and the duration of each of these benchmarks.

The evaluation of the decisions on the benchmark should be made in the light of the knowledge that exists at the time that the decisions are taken and between the benchmarks that beforehand

appear to be reasonable alternatives for the purpose of comparison. The quantitative evaluation should as far as possible be made using contrafactual comparisons between clearly differentiated and stylised debt portfolios with respect to expected costs and risk. The costs refer to the average running-yield-to-maturity. One alternative may be a so-called status quo portfolio that assumes that the characteristics of the debt from the outset are retained unchanged. It should be emphasised that the evaluation refers to debt management from a long-term perspective.

III. Decisions on the foreign currency benchmark: The Debt Office is of the opinion that evaluation of the choice of benchmark portfolios for the foreign currency debt should chiefly be done in qualitative terms as reasonable norms for purposes of comparison in a quantitative evaluation are lacking. The evaluation should therefore be aimed at judging whether the analyses and arguments that led up to a particular benchmark are of good quality and are logical. The continued validity of underlying arguments and conclusions in order to provide guidance on future decisions should also be analysed.

The Government understands the difficulties of performing a correct and relevant quantitative evaluation of the choice of foreign currency benchmarks. The evaluation will thus be primarily qualitative and of the nature proposed by the Debt Office. However, this does not need to preclude quantitative elements that may help increase the value of the analysis of the structure of the benchmark. The Debt Office should therefore, to the extent that partial analyses are permitted to influence the distribution in the foreign currency benchmark, report its reasons for doing so and provide a basis in this respect for making a quantitative follow-up possible.

IV. Decisions on strategic foreign currency positions in relation to the foreign currency benchmark: Strategic foreign currency positions are to be evaluated in the same way as the Debt Office's operational management of foreign currency, that is, by comparing the positions' actual costs with the foreign currency benchmark's hypothetical costs. The deviation from the benchmark states in

terms of market values if the strategic position has resulted in savings or cost increases.

V. Decisions on goals for debt management and market maintenance: These management decisions refer chiefly to the choice of goals and priorities and whether these goals and priorities can be expected to lead to the desired effects. The evaluation of debt management and market maintenance is discussed in greater detail under point 9 in the next section.

The Debt Office's Operational Management

Evaluating operational management entails an assessment of the extent to which the Debt Office has achieved its agreed objectives and agreed measures have been taken. It also involves a quantitative evaluation in relative terms of the operational management of the foreign currency debt and the conduct of foreign currency exchanges.

As in previous years, *the management of the foreign currency debt (VI)* will be evaluated by comparing the actual costs of the foreign currency debt in market maintenance terms with the benchmark's hypothetical costs. The results indicate the extent to which deviations from the benchmark portfolio have led to higher or lower costs in relative terms.

In last year's decision, the Government stipulated that the *operational management of foreign currency trades (VII)* was to be guided by having the Board of the Debt Office establish a relatively even distribution of the exchanges (with specified intervals) over the year and that it is to be construed as neutral in terms of the outcome in the sense that a zero result will be achieved if the trajectory is followed. The aim of the interval is to provide the scope for effective management. In addition the Board is to establish deviation intervals for position-taking. Within the interval, the Debt Office can then avoid changing currencies when it appears especially disadvantageous, and vice versa. Possible deviations will be evaluated ex post by estimating the difference in cost between the trajectory for the foreign currency exchanges that are

neutral in outcome and the actual trajectory. This method of evaluation will be followed until further notice.

The Government noted that in last year's decision on the guidelines that it is necessary to work with several dimensions in evaluating *the inflation-linked borrowing (VIII)* and that the quantitative measures then in use did not capture the risk and therefore did not cover the entire objective of debt management. Studying other conditions such as subscription quotas, the Debt Office's underlying assessments of decisions on issues, etc. also seemed appropriate. The evaluation will thus be chiefly qualitative and it will be based on the reasons on which a particular decision rests. In addition the cost difference realised should be reported as before. This means that a cost comparison between borrowing in inflation-linked bonds and borrowing in nominal government bonds for 1999–2003 is to be reported.

Borrowing in foreign currency will be evaluated as it was previously; that is, the Debt Office will report how the borrowing occurred during the year, transactions and spreads for kronor/foreign currency swaps and cost comparisons between loan instruments in foreign currencies.

In this year's proposal on the guidelines, the Debt Office has put great importance on evaluation issues. With respect to *debt management and market maintenance (V and IX)*, the Debt Office states that on the whole, the development work should be aimed at seeing how a comprehensive and correct evaluation can be achieved. Such an evaluation should include both qualitative and quantitative analyses. An important step in this work, both at the strategic and operative levels, would be to divide up the debt management and market maintenance measures into general and more specific efforts. General measures, such as conducting borrowing so that it is predictable, offering repo facilities and exchanges, broadening the investor base, etc., should be the subject of more extensive analyses with time intervals longer than one year. Specific efforts such as establishing electronic trading can be analysed the year after they are implemented based on the results expected of them beforehand. The Debt Office should also continue to re-

port the debt management and market maintenance measures that it took during the year.

Previously the Government has stressed the importance of developing quantitative evaluation methods with the aim of obtaining indicators of the impact of the Debt Office's measures on central government financing costs. Given the existing difficulties in such areas as debt management and market maintenance of developing robust and correct results indicators, the Debt Office proposals are considered interesting. The evaluation of the strategic decisions, which mainly concern taking a position on whether the objectives established by the Board are reasonable, can with advantage, be made by comparisons with other countries. In this connection the Government notes with satisfaction that the Debt Office plans to make an international comparison of debt management and market maintenance measures between various government securities markets.

How the more specific measures will be evaluated may vary from case to case. The Government here wants to underline the importance of clarity and transparency in the various decisions taken. It concerns formulating goals, the results that measures that have been decided are expected have and, not least, the way in which the evaluation is to be carried out. In this work one aim should also be to include quantitative indicators in the analysis as far as possible.

6 Technical Appendix: The Main Concepts Defined

The Foreign Currency Mandate

The Government regulates the management of the foreign currency debt by laying down a mandate in terms of a benchmark for repayment (amortisation) of the foreign currency debt.

In the present foreign currency mandate, all foreign currency flows (excluding interest payments) are included: that is, the net of the amounts falling due and new borrowing as well as derivative instruments that cause the initial flows. For example, the foreign exchange leg of swaps between kronor and foreign currencies is included in the mandate as an exchange is made from kronor to foreign currency in connection with the swap. Forward transactions are not included at the time of the deal since there is no foreign exchange flow until the forward contract expires. All transactions are valued at the exchange rate in effect on the transaction date. Realised exchange rate gains and losses on loans falling due are also included in the foreign currency mandate. Unrealised changes in the value of the foreign currency debt are not included as they, by definition, do not result in any payments (flows).

In this year's decision on the guidelines, the definition of the foreign currency mandate is changed so that all transactions that have an impact on the central government's currency exposure are included (See also section 3.2: A New Definition of the Foreign Currency Mandate). This means that forward foreign exchange transactions affect the measured rate of amortisation already when they are contracted, instead of when they expire, as before. Thus

the point when the foreign currency transactions of the Debt Office are reflected in the mandate is being shifted somewhat.

Debt Swaps (Kronor/Foreign Currency Swaps)

For reasons of cost, the Debt Office has chosen to take loans in Swedish kronor and by debt swaps (kronor/foreign currency swaps), convert the loans to debt in foreign currencies. This practice has in most cases proved to be cheaper than direct borrowing in foreign currencies.

This form of foreign currency borrowing can be said to consist of three steps. In the first step, borrowing in kronor in the form of ordinary bond issues takes place; that is, the Debt Office acquires debt in kronor on which the Debt Office pays the interest on long-term government bonds. In the next step, the Debt Office makes an interest rate swap, which means that the Debt Office receives payments linked to a long-term interest rate on the swap and in return pays a variable interest rate on the swap. Because the long-term interest rate on the swap is generally higher than the interest rate on government bonds, the Debt Office makes a saving. This difference is called the swap spread.

The third step involves a kronor/foreign currency swap. In kronor/foreign currency swaps, the Debt Office gets an asset in kronor equal in size to the debt in kronor that resulted from the government bond and a debt in foreign currency. The debt in kronor has thus been converted to a debt in foreign currency.

Duration

Duration is used to measure the length of the debt. The debt's average remaining time to maturity is estimated by multiplying the maturity of each cash flow (coupons and redemptions) by the size of the cash flow. The present value of the cash flow is used to measure the maturity of the cash flows. Because the present values

of future cash flows depend on the interest rate level, the duration depends on the interest rate level.

The Debt Office's duration target is expressed as Macauley duration, which means using the bond's yield-to-maturity to calculate the present value of the future cash flows. Macauley duration is generally expressed in years.

Maturity Profile

The maturity profile is defined in terms of how large a percentage of the outstanding stock at the time of measurement has maturities within the prescribed maturity interval. In practice the maturity profile is measured at the end of each month. The cash balance, which periodically and daily may show swings of tens of billions of kronor between a surplus and a deficit, is estimated ex-ante to be at an average level with a deficit of SEK 15 billion. However, the cash balance changes in a predictable way over the months; thus for any twelve-month period, the approximate levels at which amounts fall due on those days that the cash deficit is largest. For short/term borrowing (principally call loans and treasury bills with a maturity of less than 12 months) that will be refinanced during the year, only the volumes that are outstanding at each time of measurement are included.

The maturity date profile thus gives an on-the-spot account of the total outstanding volume that will fall due within 12 months of a particular day. The net maturities of derivative instruments have been estimated at zero in the calculations. The net values appear only as a result of exchange rate fluctuations, and as the exchange rates in effect at the due dates are not known in advance, zero is a reasonable forecast.