2005

Guidelines for Central Government Debt Management 2005

Decision taken at the Cabinet meeting
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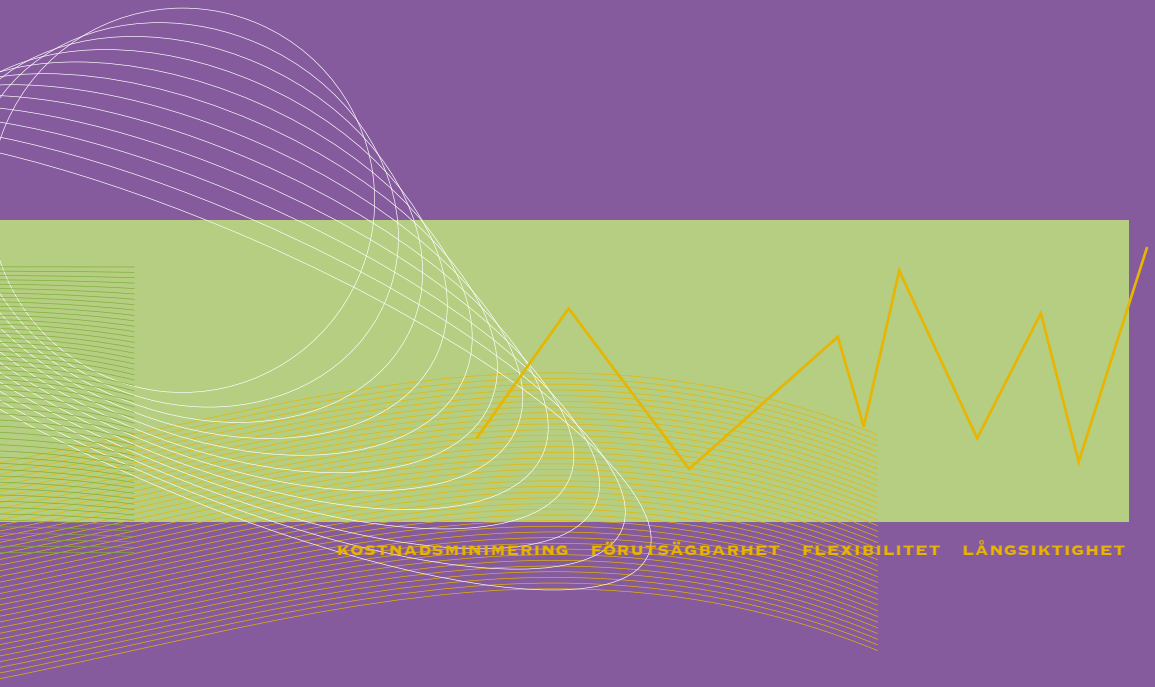

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1 Summary

The Government's decision on the guidelines for central government debt management has a multiyear perspective aimed at creating a central government debt policy that is predictable and long term in nature. This year's decision on the guidelines covers 2005 to 2007, but the guidelines for 2006 and 2007 are preliminary and may be changed in the decision on the guidelines in future years.

The aim of previous years' guidelines has been a long-term reduction in the foreign currency debt as a percentage of central government debt. In addition there has been an explicit goal to increase the proportion of inflation-linked borrowing in the central government debt in the long term. However, there has been no assessment of what percentage of the central government debt should be allocated to each of the three different kinds of debt in the long term. In preparation for this year's guidelines, the Swedish National Debt Office was instructed to pay particular attention to the percentage of foreign currency debt in the central government debt over the long term. This work also led to an assessment of the percentage of inflation-linked borrowing and thus of the structure of the debt as a whole. Based on this analysis, the Government, in this year's decision on the guidelines, has specified a long-term structure for the central government debt. The main points in the Government's guidelines for central government debt management are:

- The long-term aim continues to be a reduction in the foreign currency debt as a percentage of the central government debt. The percentage of foreign currency debt in the long term is to be reduced to about 15 per cent. In 2005, amortisations of the foreign currency debt will therefore amount to SEK 25 billion. For 2006 and 2007, the aim will also be an amortisation rate of

SEK 25 billion a year. The Debt Office may deviate from this benchmark by SEK ±15 billion;

- In the long term, there is to be an increase in the percentage of inflation-linked loans in the central government debt. The percentage of inflation-linked debt is to be 20 to 25 per cent in the long term. Borrowing is to continue 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;
- In addition to inflation-linked borrowing in kronor and borrowing in foreign currencies, the gross borrowing requirement will be met by nominal krona loans;
- The benchmark for the duration of the entire nominal krona and foreign currency debt is to be 2.5 years, a reduction from 2.7 per cent a year in the previous guidelines. With a slightly lower average duration, the average cost is expected to fall without any undesirable increase in the aggregate risk level. As before, the Debt Office may decide on benchmarks that yield an average duration of the nominal debt that deviates from the benchmark by no more than ±0.3 years.

The Government notes that it may seem obvious that the guidelines for the management of the central government debt should be stated in terms of the proportions of various types of debt. However, it should be taken into account that the proportions of different types of debt may vary a great deal within the framework of normal debt management and too strict an application of a management system of that kind may mean an increase in the cost of both foreign currency and inflation-linked borrowing. In the long term, the guidelines should therefore be formulated in such a way that they allow some scope for flexibility in debt management. One possibility is the inclusion in future decisions on the guidelines of a fluctuation interval around the benchmark for the proportion of each type of debt. However, the size of these intervals and the exact design of the management system should be given further study. With the current guidelines on foreign currency and inflation-linked borrowing, it will take a number of years to reach

the proportion proposed for each type of debt making up the central government debt. The Government therefore intends to revert to this question in future decisions on the guidelines. The Government is aware that a proposed new solvency system (SOU 2003:84) may affect the demand for long-term bonds. The design of the central government debt policy will depend on prevailing market conditions and will be based on the goal of minimising the cost of the central government debt with due consideration for risk. Important changes in market conditions will be taken into consideration in future decisions on the guidelines.

2 Introduction

In 1998, the Sveriges Riksdag decided on objectives and a decision-making structure for central government debt policy (Government Bill 1997/98:154, bet. 1997/98:FiU29, rskr. 1997/98:253). Section 5 of the statute (1988:1387) on central government borrowing and debt management stipulates that a general goal of central government debt management is a management that minimises 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 Riksdag's 1998 decision means that the Government is to decide on guidelines for the Debt Office's management of the central government debt. The decision on the guidelines for the coming year is to be made no later than November 15. The decision is made after the Debt Office has presented its proposed guidelines and the Sveriges Riksbank has been given the opportunity to comment. The Debt Office submitted its proposed guidelines on September 30, 2004 and the Riksbank's comments were received on October 18, 2004. According to the Riksbank, the Debt Office's proposed guidelines are compatible with the constraints imposed by monetary policy.

The Debt Office is responsible for the operationalisation of the Government's guidelines, which means that the guidelines are restated as intermediate objectives and benchmarks.

After completion of each year of debt management, the Government presents an evaluation of central government borrowing and debt management to the Riksdag no later than April 25. The report contains an evaluation of the Government's guidelines as well as an evaluation of the decisions taken by the Board of the Debt Office and decisions taken at the operational level.

3 The Basis for the Government's Guidelines

3.1 The Structure of the Central Government Debt

Three types of debt are used in borrowing and managing the central government debt.

- Nominal loans in Swedish kronor;
- Inflation-linked loans in Swedish kronor;
- Nominal loans in foreign currency

The debt's characteristics are primarily determined by the distribution between the three types of debt and the choice of maturity in the respective types of debt. These quantities, along with the absolute size of the debt, are critical in estimating the total costs and risks that may be expected in the management of the central government debt. The Government's decision on the guidelines therefore has to be designed so that the central government debt taken as a whole will have the characteristics sought in relation to the long-term goal of central government debt policy.

At the end of 2003, the central government debt came to SEK 1,229 billion, an increase of SEK 25 billion over the debt at the end of 2002.[1] The central government debt was approximately 51

[1] Refers to the unconsolidated central government debt, i.e., the official debt that the Debt Office manages and reports. The Budget Bill and the central

per cent of GDP at the end of 2003, which is slightly lower than in the previous year.

The percentage of foreign currency debt grew rapidly during the first half of the 1990s, from less than 10 per cent to almost 29 per cent of the central government debt. During the latter half of the 1990s, the percentage of foreign currency debt remained stable at about 30 per cent of the central government debt, only to resume increasing a little at the beginning of the 2000s. However, in the past three years, the percentage of foreign currency debt has fallen sharply and at the end of 2003, foreign currency debt constituted 27 per cent of the value of the central government debt. The lower proportion of foreign currency debt can be explained primarily by the strengthening of the krona in 2002 and 2003. But the amortisations of the foreign currency debt in recent years have also contributed to the reduction.

Table 1. Size and Structure of the Central Government Debt 2000–2003 and Projections for 2004 (SEK billion and per cent)

	2000	**2001**	**2002**	**2003**	**2004**
Nominal debt in kronor	811	687	671	726	780
Per cent	*61*	*56*	*56*	*59*	*61*
Inflation-linked loans	138	117	158	173	190
Per cent	*10*	*10*	*13*	*14*	*15*
Foreign currency debt	395	407	375	330	306
Per cent	*29*	*34*	*31*	*27*	*24*
Unconsolidated central government debt	**1 344**	**1 211**	**1 204**	**1 229**	**1 276**

Source: Swedish National Debt Office.

Note: The foreign currency debt has been valued at the exchange rates in effect at year end. The evaluation as of December 31, 2004 is based on closing exchange rates on October 18, 2004, which the Debt Office used in its most recent debt projections. Beginning in 2003, the central government debt is reported using a new and more accurate measure. (See, for example, the Debt Office's *Annual Report* for 2002). For comparative purposes, the central government debt for 2000-2002 shown in Table 1 has been recalculated in line with the new definition.

government's annual report generally show a consolidated debt measure that excludes the holding of government securities by public authorities.

Inflation-linked loans have an important function in the central government debt portfolio because they make possible diversification of the central government debt beyond nominal krona and foreign currency borrowing. Diversification means that there is less total risk in the central government debt. The Swedish market for inflation-linked bonds has gradually developed and become more liquid. The demand for inflation-linked investments has continued to grow and in 2003 the inflation-linked debt amounted to SEK 173 billion. Since the Debt Office first issued inflation-linked bonds in 1994, the percentage of inflation-linked loans has steadily increased. At the end of 2003, such loans made up 14 per cent of the central government debt.

Nominal borrowing represents the most important source of financing of the central government debt. Most of the nominal krona borrowing takes place in the domestic securities market using treasury bonds (loans with a maturity of more than one year at issuance) and treasury bills (loans with a maturity that is generally less than one year at issuance). Included in the kronor-denominated debt are overnight loans, deposit transactions and repos, which are used to manage the daily swings in the central government's funds as a result of cash flows to and from the central government.

Furthermore the bulk of borrowing in the private market is in nominal loans. This means that the Debt Office can diversify borrowing to include more lenders, both private and corporate. Borrowing in the private market includes, for example, lottery bonds and National Debt Savings accounts, which in a short time have generated deposits of about SEK 19 billion. The percentage of nominal loans came to 59 per cent towards the close of 2003.

3.2 The Basis for the Decision on the Guidelines

The basis for the Government's decision: This year's decision on the guidelines has, as usual, a three-year perspective and refers to the years 2005 to 2007, but the guidelines for 2006 and 2007 are considered preliminary and may, in future, be changed. The guidelines' multiyear perspective creates the conditions for a central government debt policy that is predictable and long term in nature.

Key Positions Taken in Previous Years' Guidelines

In previous years' decisions on the guidelines, the Government has taken a position on a number of matters for the purpose of clarifying the principles and conditions on which central government debt policy rests. The time perspective and long-term planning in central government debt policy, cost and risk measures in central government debt management, and the structure and duration of the debt are examples of issues that have been considered.

Time Perspective and Long-Term Planning in Central Government Debt Policy

Because it takes some time to make any significant impact on the cost and risk characteristics of the central government debt, the general goal of central government debt policy needs to be formulated using a long-term perspective. For that reason, the Government's guidelines have a three-year time perspective, which coincides with the time horizon for the expenditure ceiling in the central government budget. The guidelines' multiyear perspective

creates the conditions for a central government debt policy that is predictable and long term in nature.

The direction for the last two years of the time perspective in the decision on the guidelines is considered preliminary and is examined regularly in connection with the annual decision on the guidelines. It is also possible to change guidelines that have already been adopted if there are fundamental changes in the reasons for the decision. One such change was made in July 2001 when the Government decided to lower the benchmark for the amortisation of the foreign currency debt from SEK 35 billion to SEK 25 billion.

This year's decision on the guidelines has, as usual, a three-year perspective and refers to the years 2005 to 2007, but the guidelines for 2006 and 2007 are considered preliminary and may, in future, be changed.

Cost and Risk Measures in Central Government Debt Management

At the time of the Government's decision on the guidelines, there is always some uncertainty about the future development of interest rates and exchange rates as well as central government finances. As a result, management of the central government debt has to be structured in such a way that there are margins for coping with economic developments that deviate from the expected. This is also reflected in the statutory goal of central government debt management, which stipulates that the central government debt is to be managed in a way that minimises the cost of the debt in the long term while taking into account the risks inherent in such management. This also means that in the decision on the guidelines, there is always a trade-off between the expected cost of the debt and its risk.

Earlier proposed guidelines and decisions have often considered the issue of how to define and measure the expected cost and risk of the debt. For example, in the decision on the guidelines for 2000, the Government stated that the costs should be measured in

terms of the average running yield (average interest rate upon issue) and the risks as running yield at risk (distribution of average interest rate upon issue), which would provide a measure of the risk of rising issue rates.

At the same time, the Government stated that the risk in managing the central government debt should also be measured as the central government debt portfolio's contribution to fluctuations in the budget balance and the central government debt. The inspiration for this supplementary real debt measure comes from the Asset and Liability Management (ALM) technique, which means that financial risks can be minimised by matching the characteristics of the liabilities with those of the assets. In implementing central government debt policy, this means that the central government can reduce the risk in the debt portfolio by assembling a debt portfolio in which interest costs co-vary with the budget surplus (excluding interest payments on the central government debt). This means that a debt portfolio that normally has low costs when central government finances are stretched (for example, as a consequence of a recession) has less risk than a portfolio in which these conditions are reversed.

The Structure and Duration of the Central Government Debt

In earlier proposed guidelines, the Debt Office has analysed the structure of the central government debt. These analyses have shown that in the long term, the proportion of foreign currency loans should decrease while the proportion of inflation-linked loans should increase. The principal reason for reducing the percentage of foreign currency debt is that it has higher risk than nominal kronor debt because the krona's exchange rate has a direct impact on the central government's interest costs and the value of the foreign currency debt. Furthermore, the higher cost of the foreign currency debt risks coinciding with bigger budget deficits in times when central government finances may be expected to be weak for cyclical reasons. A large foreign currency debt thus risks strengthening the swings in the central government finances.

The explicit aim of increasing the percentage of inflation-linked loans over the long term is primarily motivated by the risk argument. Inflation-linked loans have been found in principle to have the opposite characteristics to nominal krona borrowing. Inflation affects the cost of nominal krona borrowing and inflation-linked loans in opposite ways. This leads to the conclusion that for diversification reasons, the debt portfolio should contain both types of instruments.

In previous decisions on the guidelines, the Government has concurred with the Debt Office in its assessment of the structure of the central government debt. For example, in last year's decision on the guidelines, the Government stated that there was to be a SEK 25 billion amortisation of the foreign currency debt in 2004 and that the same rate of amortisation should be aimed for in 2005 and 2006. The Government also decided that the percentage of inflation-linked loans was to increase in the long term, but that the rate of increase was to be weighed against the demand for inflation-linked bonds and the borrowing costs of other types of debt, with due consideration for risk.

The Debt Office has also analysed the choice of duration in the nominal kronor debt and the foreign currency debt. These analyses show that short-term borrowing in Swedish kronor may be advantageous with respect to both cost and risk when these are related to GDP. The reason is that short-term interest rates are typically lower than long-term rates (a positive sloping yield curve). As well, short-term domestic interest rates tend to have a positive covariance with GDP growth (weak demand results in weak growth, low inflation, and weak central government finances). However, the possible cost savings that result from short-term borrowing have to be weighed against the increased risk associated with short-term borrowing because the debt has to be refinanced more often.

In 2000 a smaller reduction in the duration was made. Considering that the Swedish central government debt can be said to have a relatively short average duration, the Government has left the guidelines concerning the duration unchanged since then. In the

decision on the guidelines for 2004, the Government stated that the benchmark for the duration was to remain unchanged at 2.7 years and that the aim for 2005 and 2006 was also to leave the duration unchanged.

Analyses in Preparation for This Year's Proposed Guidelines

At the Government's request, the Debt Office has conducted a more in-depth analysis of how the central government debt should be distributed among the different types of debt in the long term. The Debt Office has examined how various crisis situations affect the costs of the debt. The analysis shows that it is relatively expensive to insure against higher interest costs in the event of an international financial crisis by lengthening the duration. The savings in the years of the crisis will not compensate for the higher average costs that a longer duration involves. However, in the event that the central government finances develop worse than expected, the need for such insurance grows. If the risk in the central government debt is to be reduced, it is considered more cost effective to decrease the proportion of foreign currency debt rather than by extending the duration of the debt.

The analysis conducted by the Debt Office supports previous conclusions that the long-term aim of central government debt management should continue to be to reduce the percentage of foreign currency debt. The Debt Office has come to the conclusion that the percentage of foreign currency debt should be about 15 per cent in the long term. It is also the Debt Office's opinion that the inflation-linked debt should continue to increase to 20 to 25 per cent of the central government debt.

The benchmark for the duration of the nominal krona and foreign currency debt has not been changed since 2000. Over that same period, the maturity in the total debt has been lengthened in

line with the increase in the proportion of inflation-linked debt (inflation-linked bonds have a considerably longer maturity than other types of debt). This has meant that the risk level in the debt has fallen while the expected costs have risen. If the guidelines on the percentage of inflation-linked debt are not changed, this development will continue in the years to come. This makes it possible to shorten the maturity for other types of debt without the total level of risk rising in an undesirable way. Therefore in this year's proposed guidelines, the Debt Office recommends that the benchmark for the average duration in the nominal kronor debt and the foreign currency debt be lowered from 2.7 to 2.5 years.

4 Decision on the Guidelines for Central Government Debt Management in 2005

4.1 The Foreign Currency Debt

The Government's decision: The percentage of foreign currency debt is to be reduced in the long term to about 15 per cent. The benchmark for the amortisation of the foreign currency debt in 2005 is to be set at SEK 25 billion. The amortisation rate for 2006 and 2007 should remain unchanged at SEK 25 billion a year.

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

The Debt Office's Proposal: In this year's proposed guidelines, the Debt Office has made a comprehensive assessment of how the central government debt should be structured in the long term. The assessment of the percentage of foreign currency debt is based on a number of factors.

On one hand, the foreign currency debt is associated with exchange rate risk, which means that this type of debt has more risk than nominal krona debt has. On the other hand, foreign currency borrowing is considered a flexible instrument. For example, experience in the 1990s shows that when the borrowing requirement increases dramatically, it may be advantageous to borrow in foreign currency. It eases the pressure on the domestic interest rate

market as well as yielding cost advantages since a large borrowing requirement puts upward pressure on krona interest rates and weakens the krona. However, for the central government to be able to borrow substantial amounts of foreign currency in the event of a crisis, the foreign currency debt should not be too high at the outset.

The foreign currency debt plays a part in diversifying the central government debt. This means that some part of the central government debt should be in foreign currency. The foreign currency debt consists of five different currencies. Since the interest rate in the different countries is not perfectly correlated, foreign currency borrowing helps reduce the risk in the total central government debt. For diversification to have a noticeable impact, the percentage of foreign currency debt should not be too small.

The choice of a benchmark for the percentage of foreign currency debt is a trade-off between the positive characteristics of the foreign currency debt and the exchange rate risk. The Debt Office has come to the conclusion that a foreign currency debt of about 15 per cent of total debt constitutes a reasonable trade-off between these factors.

Previously the Debt Office had advocated a gradual reduction in the foreign currency debt. In last year's decision on the guidelines, the Government stated that the amortisation rate for 2005 and 2006 should aim to reduce the foreign currency debt by about SEK 25 billion. According to the Debt Office, nothing has happened that would decisively indicate any need for a change in the amortisation rate. In the Debt Office's judgement, the amortisation rate for 2007 should, for the same reasons, be SEK 25 billion.

The Debt Office should also in the future be permitted to deviate from the Government's benchmark by SEK ±15 billion. The interval is to support the goal of minimising the cost of the central government debt with due consideration for risk.

In summary, the Debt Office recommends that the benchmark for amortising the foreign currency debt in 2005 be set at SEK 25 billion. In addition the Debt Office is of the opinion that it should

be permitted to deviate from this benchmark by SEK ±15 billion. The proposed amortisation rate for 2006 and 2007 is SEK 25 billion a year.

Reasons for the Government's decision: The decision on the guidelines should be based on long-term and strategic considerations of the costs and risk in central government debt management. From a short-term perspective, the foreign currency debt has cost advantages, but these advantages presume that the prevailing interest rate spread between Sweden and foreign countries will continue and that the krona will not weaken. From a long-term perspective, however, the risk arguments clearly indicate that the foreign currency debt should be reduced. The Government notes that in times of weak central government finances, foreign currency borrowing has been an efficient borrowing tool. However, for this to hold true, the foreign currency debt must not be too big at the beginning of such a period. This supports the basic argument that the foreign currency debt should be reduced.

With the need for a reduction in the foreign currency debt demonstrated, the optimal percentage of foreign currency debt in the long term remains to be decided. Compared with other countries, Sweden has a relatively high percentage of foreign currency debt. Before the introduction of a common currency in the euro area, most Member States in the EU had a foreign currency debt of 5 per cent or lower of total debt. In comparison, Sweden's foreign currency debt exceeded 25 per cent. The Government does not see any reason for making any assessment other than that made by the Debt Office, namely, that in the long term, the percentage of foreign currency debt should be reduced to about 15 per cent.

Specifying a long-term goal for the percentage of foreign currency debt reduces the uncertainty about the Debt Office's long-term amortisation plans. However, it will take some years to reach the goal of 15 per cent. Before then, it is important to clarify how a management system expressed in debt percentages is to be applied. Too strict an application of the management system may make borrowing more expensive. In future, the guidelines should thus be formulated in such a way that they allow some scope for flexibility in debt management. One possibility is the inclusion in the

guidelines of a fluctuation interval around the benchmark for each debt percentage. However, the size of this interval and the exact design of the management system should be given further study.

In the decision on the guidelines for 2004, the amortisation rate for the foreign currency debt was SEK 25 billion a year from 2004 to 2006. This rate constitutes the starting point for this year's decision on the guidelines. Even though the central government financial outlook has improved somewhat since then, the Government sees no reason to abandon its medium-term direction. Nor are exchange rate trends for the krona over the next few years expected to provide any reason to deviate from the benchmark. Thus the benchmark for the amortisation of the foreign currency debt in 2005 should therefore be SEK 25 billion. The amortisation rate for 2006 and 2007 should remain unchanged at SEK 25 billion a year.

With no change in the central government debt and a stable exchange rate for the krona, an annual amortisation rate of SEK 25 billion means that the foreign currency percentage in the debt will fall to 20 per cent by the close of 2007. This means that for a number of years, the central government will have a higher foreign currency debt than is desirable in the long term. Because of the relative strength of the Swedish economy, the size of the foreign currency debt is not expected to pose a major problem. On the contrary, relatively low international interest rates mean that the higher percentage of foreign currency debt in the short term could help lower the cost of the central government debt.

It is important that the Government's long-term aim for the amortisation rate on the foreign currency debt should not be founded on current exchange rates or short-term forecasts of exchange rate trends. 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 trend in the krona's exchange rate. The Debt Office should be allowed to deviate from the established amortisation rate by SEK ±15 billion.

4.2 Inflation-Linked Krona Debt

The Government's decision: The percentage of inflation-linked krona debt is to increase in the long term to 20 to 25 per cent. The rate of increase in this type of borrowing 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: The basis for the guidelines now in force is that when compared with a debt consisting solely of nominal debt instruments, inflation-linked debt is judged to help lower the total risk in the central government debt. The risk of substantial fluctuations in interest costs decreases if the debt is composed of different types of debt.

In principle, it may be assumed that the expected cost of inflation-linked borrowing will be lower than the cost of equivalent nominal krona borrowing since investors should be willing to pay a premium for protection against inflation. Hence the yield required will be lower on inflation-linked loans than on nominal loans. Consequently the central government can be expected to borrow at a lower cost by assuming the inflation risk from the general public. The greater the uncertainty about future inflation, the higher the inflation risk premium is likely to be. The premium that will accrue to the central government by assuming the risk premium is thus the greatest for bonds with long maturities.

In estimating what percentage of the debt should reasonably consist of inflation-linked loans in the long term, additional factors need to be considered. For example, the inflation-linked debt should be large enough for the market for inflation-linked bonds to have sufficient liquidity. However, should the percentage of inflation-linked bonds increase excessively at the expense of the nominal krona debt, it may reduce liquidity in the nominal krona market

and thus drive up interest costs. It is important that the nominal market functions well since this market still acts as a buffer in the event of sharp swings in the borrowing requirement.

The Debt Office has thus come to the conclusion that the inflation-linked debt should continue to increase to 20 to 25 per cent. An inflation-linked borrowing percentage of this size means that there will be sufficient liquidity in the inflation-linked bond market and the central government can benefit from the inflation-linked debt's diversification effects. The proposed percentage for the inflation-linked debt, together with a declining foreign currency debt, will also make room for a large and liquid nominal bond market.

Inflation-linked borrowing represents a trade-off between the goal of minimising expected costs and the possibility of reducing the risk. It is therefore important that the Debt Office, as before, will be given the possibility of appraising market conditions and not be compelled to issue inflation-linked bonds in situations in which doing so appears more costly than issuing nominal bonds.

Thus the goal should be to increase the percentage of inflation-linked loans in the central government debt in the long term, but the borrowing must be weighed against the growth in demand for inflation-linked bonds and the cost of other types of debt, with due consideration for risk.

Reasons for the Government's decision: Since the Debt Office first issued inflation-linked bonds in 1994, the percentage of inflation-linked debt has steadily increased and, at present, stands at over 15 per cent. Compared with many other countries, central government debt in Sweden has a relatively high percentage of inflation-linked debt. Only the United Kingdom and Iceland have a higher percentage. The aim is to continue to increase the percentage of inflation-linked debt in the long-term. The Government concurs with the Debt Office's recommendation of the need to increase the percentage of inflation-linked debt to 20 to 25 per cent.

Even though the expected cost of inflation-linked borrowing is likely to be lower than the cost of equivalent nominal krona bor-

rowing, it is the risk argument that is crucial in the Government's position on increasing the percentage of inflation-linked debt. Since inflation-linked borrowing and nominal borrowing are mirror images, the debt portfolio should contain both types of loans. By doing so, the central government can reduce the risk of unwanted swings in central government debt interest costs.

The Government is of the opinion that the Debt Office should be responsible for the trade-off between minimising the expected costs and the possibility of reducing the risk. The Government therefore concurs with the Debt Office's assessment that the rate of increase in this type of borrowing 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.

4.3 Nominal Krona Debt

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

The Debt Office's Proposal: The guidelines for Central Government debt management are based on the division of the debt into three components: inflation-linked krona loans, foreign currency loans and nominal krona loans. Once the guidelines for inflation-linked borrowing and foreign currency borrowing have been stated, then, by definition, the remaining part of the central government's borrowing requirement is to be met by nominal krona loans.

Reasons for the Government's decision: In addition to inflation-linked krona borrowing and foreign currency borrowing, central government financing needs should be met by nominal krona loans. The krona market represents the central government's most important source of financing. Because the Debt Office regularly holds auctions for both treasury bonds and treasury bills, the changes in the gross borrowing requirement are naturally managed in the market for nominal krona loans. The krona market thus functions as a buffer in the event of swings in the borrowing requirement or changes in the plans for the other two types of debt.

4.4 Maturity

The Government's decision: The benchmark for the duration of the nominal krona debt and the foreign currency debt is to be lowered to 2.5 years. The adjustment to the new benchmark is to be made gradually over the course of 2005.

The Debt Office may decide on targets for the average duration of the nominal debt that deviate by a maximum of ±0.3 years from the benchmark. A decision to deviate from the Government's benchmark is to be handled as a position and assessed in terms of market value.

The guideline for the maturity of newly issued inflation-linked bonds is to be removed.

The Debt Office's Proposal: Earlier proposed guidelines concluded that the central government can lower the costs of its nominal krona and foreign currency loans by borrowing with relatively short maturities without increasing the risk too much. A duration of 2.7 years in the nominal krona debt and the foreign currency debt has been deemed sufficient.

In recent years the Debt Office has increased the percentage of inflation-linked borrowing in the central government debt. The maturity of the inflation-linked debt is much longer than the maturity of the nominal debt and thus the maturity of the total debt has risen. This trend will continue, given that the percentage of inflation-linked borrowing is to keep on increasing. This means that the level of risk in the central government debt is declining. This reduction in the risk can be used to take somewhat more risk in the rest of the debt management and thereby reduce the expected costs.

In the Debt Office's judgement, increasing the level of risk by reducing the duration is preferable to increasing the percentage of foreign currency debt. Therefore the Debt Office proposes that the benchmark for the duration of the nominal krona debt and the foreign currency debt should be lowered to 2.5 years. Adjusting

the duration to the new benchmark should be done gradually so that the transaction costs are not unnecessarily high.

As before, 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.

In view of the historically low interest rates both in Sweden and internationally, it is worth considering whether it is appropriate to reduce the duration in the present situation. However, it should be pointed out that the change in the benchmark for the duration is long term in nature and it is possible for the Debt Office to hold off lowering the duration, given the deviation interval now in force. However, any decision to choose a different maturity should be handled as a position and assessed in terms of market value.

In the decision on the guidelines for 2003, the Government stated that inflation-linked borrowing was to have long maturities and this is to be interpreted as at least five years. Five years is a relatively short maturity for an inflation-linked bond, but the difference in cost between short- and long-term inflation-linked bonds has generally proved to be minor. It is the opinion of the Debt Office that the choice of maturity should be governed by the demand for inflation-linked bonds and the borrowing costs of other types of debt, with due consideration for risk. This would provide more possibilities to tailor the issues to market demand in an effective manner.

The Debt Office has proposed removing the requirement that bonds have a maturity of more than five years. The properties of inflation-linked bonds mean that the vast majority of issues will still have long maturities.

Reasons for the Government's decision: The benchmark for the duration of the nominal krona debt and the foreign currency debt has been 2.7 years since 2000. The increase in the percentage of inflation-linked debt and its longer maturities have led to an increase in the maturity of the total debt during the same period from 3.2 to 3.7 years. A longer duration brings lower risk, but higher expected interest costs for the central government debt.

It is the Government's view that there is room for a slightly higher level of risk in the nominal krona debt and that this increase should be accomplished by means of a somewhat shorter average maturity. The Government supports the Debt Office's proposal to lower the benchmark for the duration of the nominal krona debt and the foreign currency debt to 2.5 years and to adjust the duration to the new benchmark gradually over the course of the year so that the change in the duration is complete by the end of 2005.

Table 2. The Duration of the Central Government Debt at Year-End

	2000	2001	2002	2003
Nominal krona debt	3.0	2.9	2.8	2.9
Foreign currency debt	2.1	2.1	2.1	2.2
Inflation-linked debt	9.3	9.1	10.3	10.6
Total, excluding inflation-linked debt	2.7	2.6	2.5	2.7
Total, including inflation-linked debt	3.2	3.1	3.4	3.7

Source: Swedish National Debt Office.

In future the Debt Office may also decide on targets that result in an average duration for the nominal debt that deviates by a maximum of ±0.3 years from the benchmark. Any measures taken should be based on an assessment of the current interest rate situation in relation to the long-term trend in interest rates and, like other strategic positions, they are to be assessed primarily in terms of market value.

The Government is aware that a proposed new solvency system (Proposal for a Modernised Solvency System for Insurance Undertakings, SOU 2003:84) may affect the demand for long-term bonds. The committee's proposal for a new solvency system discusses how the anticipated increase in the demand for long-term bonds should be managed and if there is a risk that the supply will not meet the demand. The goal of central government debt policy is to minimise the cost of the debt in the long term while taking into account the risks inherent in such management. The guidelines for central government debt management are updated every year.

If the demand for long-term bonds is so strong that the yield curve in Sweden becomes much flatter, then it will be the task of the Debt Office to consider an extension of the maturity. The design of the central government debt policy will depend on prevailing market conditions and will be based on the goal of minimising the cost of the central government debt with due consideration for risk. It is also possible for the Debt Office to hold off lowering the duration, given the deviation interval now in force.

In the Government's judgement, the guideline for the maturity of newly issued inflation-linked bonds, which says that inflation-linked borrowing is to be in instruments having a maturity of five years or longer, no longer serves any real purpose. It can therefore be eliminated. The choice of maturity for inflation-linked bonds issued by the Debt Office should be governed by the demand for these bonds and the borrowing costs of other types of debt, with due consideration for risk.

At present the maturity of the central government debt is governed by a benchmark for the duration of the nominal debt. But this benchmark does not cover the inflation-linked part of the debt. In this year's proposed guidelines, the Debt Office discusses the prerequisites for introducing a comprehensive measurement of maturity for the government debt as a whole. However, the Debt Office is of the opinion that the issue of a comprehensive measurement for the maturity of the central government debt should be given more study. Possible differences in how the maturity of various types of debt affects the risk level should be more closely examined. The Government expects the Debt Office to take up the issue of a comprehensive measure of the maturity for the entire central government debt in future proposed guidelines.

5 Evaluation of Central Government Borrowing and Debt Management

The Government's decision: For 2005 the Debt Office is to establish internal guidelines based on the Government's decision on the guidelines. The internal guidelines are to contain the benchmark for each type of nominal debt and are to be evaluated from both a quantitative and a qualitative perspective. The quantitative evaluation is to refer to absolute costs and, as much as possible, is to be compared with the Government's guidelines, with due consideration given to risk.

The evaluation of the Debt Office's strategic decisions, that is, the decisions made by its Board, are to be made in the light of the information available at the time of the decision. The choice of alternatives, for purposes of comparison, is to be made up of portfolios that appear to be reasonable beforehand. Contrafactual estimates should be supplemented with a quantitative evaluation.

The evaluation of the operational management is to refer to an assessment of the extent to which the Debt Office has achieved the objectives agreed and measures decided on have been implemented as well as a quantitative evaluation in relative terms of the operational management of the foreign currency debt and handling of the foreign currency trades.

Background

In accordance with the Riksdag's decision, the Government is to present an evaluation of central government debt management by April 25 every year in a written report to the Riksdag. Under the decision, the evaluation is to take place at various levels. Thus the Government is to evaluate the decisions of the Board of the Debt Office as well as the decisions made at the operational level. In addition an evaluation of the Government's guidelines is to be included in the report to the Riksdag.

The goal of central government debt policy is long term in nature and it is thus natural to do the evaluation using a time perspective in which temporary fluctuations in the results are smoothed out. The Government therefore uses rolling five-year periods in its evaluation of debt management. The evaluation of the decision on the guidelines for 2005 will thus concern the years 2000 to 2004.

Evaluation of Central Government Debt Management in 2005

Evaluation of the Government's Guidelines

The Government's decision on the guidelines should be evaluated directly against the long-term goal of central government debt management. Short-term estimates of interest and exchange rate developments should not normally be taken into account in the decisions on the guidelines. The report to the Riksdag should thus refer primarily to the strategic considerations that formed the basis for the decision on the guidelines.

In the evaluation of the Government's decision on the guidelines, it is important that the evaluation be made in light of the

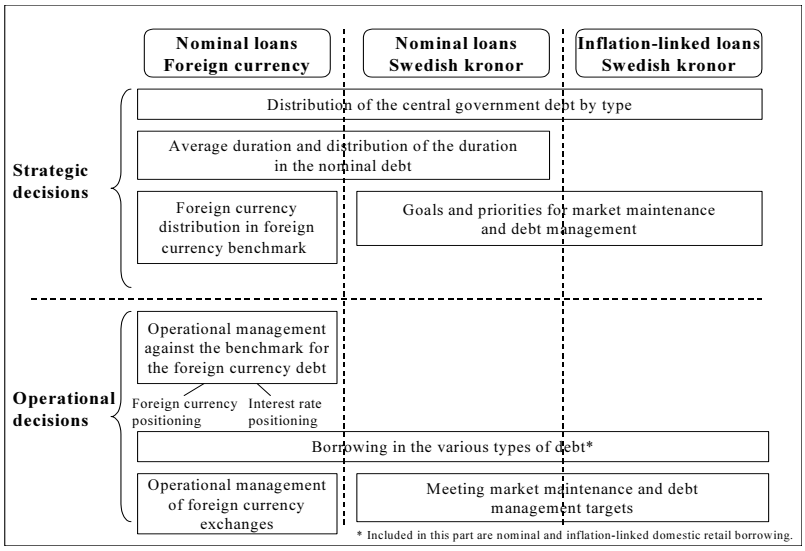
knowledge that existed when the decision was taken. Another requirement is that principles established in advance govern the evaluation. Otherwise the evaluation may be of dubious value since it is always possible with hindsight to construct other guidelines or debt portfolios that would have resulted in lower costs and/or lower risk.

One key factor in the decision on the guidelines should be how much risk the Government is willing to assume. The basic assumption should be that the debt portfolio selected should have a lower cost and/or lower risk than other portfolios. Debt portfolios that have undue risk, for example, those with little or no diversification, should thus be rejected even though they afterwards prove to have had a lower cost than a portfolio with less risk. Quantitative measures should, when deemed possible, provide the starting point for the analysis. These quantitative measures should be supplemented with qualitative considerations and judgements.

Evaluation of the Debt Office

The Debt Office's activities are evaluated on two levels; one is the strategic decisions taken by the Board of the Debt Office and the other is the operational management carried on by the Debt Office. In addition there is a separate evaluation of borrowing in the private market.

Evaluation of the Debt Office's Strategic and Operational Decisions



The Debt Office's Strategic Decisions

Within the framework of the goal of central government debt management and the Government's guidelines, the Debt Office establishes intermediate objectives and guidelines for the operational management of the debt. These *strategic decisions* aim at achieving the goal of debt management and they are to be evaluated with reference to the absolute interest costs. The evaluation of strategic decisions concerns several key decisions on debt management:

– *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 of the foreign currency

debt and the mandate to increase the percentage of inflation-linked borrowing.

– *Decisions on the benchmark portfolios for the nominal krona debt and the foreign currency debt*: This evaluation includes decisions on the average duration of the benchmark portfolios, decisions on the duration of each individual portfolio and decisions on the currency composition of the benchmark for the foreign currency debt.

– *Decisions on goals for debt management and market maintenance:* This evaluation mainly concerns the choice of goals and priorities and the likelihood that these goals and priorities can be expected to lead to the desired effects.

The evaluation of strategic decisions, above all for the benchmark portfolios, should as far as possible be made by contrafactual comparisons between clearly differentiated and stylised debt portfolios with reference to expected costs and risk. The costs refer to absolute costs in terms of average running-yield-to-maturity. One alternative may be a status quo portfolio that assumes that the characteristics of the debt are retained unchanged from the outset. It should be emphasised that the evaluation refers to the management from a long-term perspective.

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 since it presents an uneven pattern. Decisions on using the foreign currency mandate are based on strategic 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 known only when the amortisation is carried out. Consequently the assessment of whether it was correct to take such a decision must largely be based on a review of the reasonableness of the analysis that led to the decision.

The decision on the distribution of the debt between the various types of debt probably cannot be quantitatively evaluated in a meaningful way with contrafactual estimates except for the case in which a change in the proportions of the different types of debt is based on considerations concerning exchange rate developments for the krona. It should be noted that increasing the ceiling on the inflation-linked debt should be weighed against costs and risks in the other types of debt.

It should be pointed out that the evaluation is to be made in the light of the knowledge that existed at the time when the decision was made and that the choice of alternatives for comparison is made between portfolios that appear reasonable beforehand. Contrafactual estimates should be supplemented with a quantitative evaluation.

Strategic decisions permitting the duration of the nominal debt to deviate from the benchmark should be handled primarily as a position and assessed in terms of market value. The same principle was used to assess the Debt Office's strategic foreign currency position in dollars from 2001 to 2003. In the majority of cases such maturity positions should be taken in the foreign currency debt and with the help of derivative instruments. The transaction costs are lower and flexibility is greater than in the nominal krona market. At the same time, the yield requirements in various markets generally show significant co-variation.

However, were the Swedish yield requirements to deviate significantly from those in other countries, it could occasion a situation in which the Debt Office saw cause for changing the duration in the nominal krona debt in particular. Here there is limited room for using derivatives. Instead the decision may be made to change the issuance plans in order to make a gradual change in the krona debt's duration. In that event, no clear-cut position emerges that can be assessed in terms of market value. Such a strategic decision to change the duration should therefore be evaluated in terms of its impact on the average issue rate.

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 implemented. It also involves a quantitative evaluation in relative terms of the operational management of the foreign currency debt and the conduct of foreign currency trades.

The management of the foreign currency debt is to be evaluated as before 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.

The guidelines for 2002 state that the Board of the Debt Office is to establish a relatively even distribution of foreign currency trades over time that is neutral as to costs. In addition the Board is to establish the deviation intervals allowed in the operational management. Within these bounds, the Debt Office can then vary the trades it makes when it seems especially disadvantageous. Possible deviations can then be evaluated ex post by calculating differences in costs between the trajectory for the foreign currency trades that are neutral in outcome and the actual trajectory.

The nominal and inflation-linked krona debt management is to be evaluated primarily in qualitative terms. This evaluation concerns the debt and market maintenance that the Debt Office conducts with the aim of incurring the lowest possible absolute interest costs (average running-yield-to-maturity). The evaluation will thus be primarily qualitative and on an ex ante basis. Moreover, the realised difference in cost should, as before, be reported for inflation-linked borrowing. This means that a cost comparison between borrowing in inflation-linked bonds and borrowing in nominal government bonds for the latest five-year period should be reported.

6 Technical Appendix: The Main Concepts Defined

The Foreign Currency Mandate

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

In the guidelines for 2003, the Government decided to change the definition of the foreign currency mandate to include all transactions that have an impact on the central government's currency exposure. The previous definition had included only the Riksbank's foreign exchange reserves. The foreign currency mandate thus includes direct foreign currency borrowing and borrowing with debt swaps, as well as maturing loans, including realised exchange rate gains and losses. The exchange rate exposure is affected on the day of the transaction. This means that forward foreign exchange transactions also affect the pace of amortisation.

The Debt Office's Swap Transactions

Short-term borrowing can be conducted by issuing treasury bills or by first issuing a treasury bond and then making an interest-rate swap. Creating short-term interest rate exposure via the swap market means that the Debt Office first issues a bond in Swedish kronor as part of an ordinary bond issue. The next step is an interest rate swap in Swedish kronor, when the Debt Office receives fixed-interest rate payments and pays a variable interest rate (Stibor, Stockholm Inter-bank Offered Rate). Because the long-term interest rate on the swap is generally higher than the interest

rate on government securities, the so-called swap spread, the Debt Office here makes a gain. At the same time, however, the Debt Office pays a slightly higher interest rate (Stibor) than the treasury bill rate, the TED spread. But since the swap spread is normally greater than the TED spread, the Debt Office makes a net gain on the transaction. This procedure takes advantage of the central government's relative borrowing strength in long maturities and borrowing costs can be reduced.

For reasons of cost, the Debt Office has chosen to raise loans in Swedish kronor and by debt swaps (kronor/foreign currency swaps), convert the loans to debt in foreign currencies. In recent years, this practice has in most cases proved to be less costly than direct borrowing in foreign currencies. Short-term foreign currency exposure via the swap market means that the Debt Office first makes an interest rate swap as described above. Then a foreign currency swap – a basis swap – is made, meaning that the variable interest rate in kronor is exchanged for a variable rate in foreign currency (debt swap). At the same time, the Debt Office buys the foreign currency spot when the transaction is made and sells it when it closes. The basis swap has the same maturity as the interest rate swap but the interest payments are based on three- or six-month variable rates. In basis swaps, the Debt Office receives variable Stibor payments and pays interest in euros and Euribor, for example. Using this technique, the Debt Office can make a gain from the swap spread, minus a lesser cost for executing the basis swap. In principle, the borrowing cost will be the variable Euribor rate less the swap spread.

Because the Debt Office is a major player in the krona market, the actual room for interest rate swaps is limited. This room can be used for replacing treasury bills or as part of foreign currency borrowing. In these deliberations, the costs of direct foreign currency borrowing are important.

Duration

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