

Central Government Debt Management

Proposed guidelines 2010–2012



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Summary

In this memorandum, the Swedish National Debt Office presents its proposed guidelines for the management of central government debt for 2010–2012. The proposal is preliminary for 2011 and 2012. The goal is for central government debt to be managed in such a way as to minimise the long-term costs while taking into account risks. Furthermore, management shall take place within the framework of the requirements set by monetary policy.

The Debt Office's proposed guidelines are mainly based on the development of the borrowing requirement and interest rates – factors that affect the chosen balance between expected cost and risk. To obtain an idea of the borrowing requirement, we examine the forecasts made by the Government, the National Institute of Economic Research and the National Financial Management Authority. The overall picture is that central government debt will rise during the period covered by the proposed guidelines. This proposal is based on a debt in the range of SEK 1,300 billion in 2010, which may further increase by the end of 2012. In relation to GDP, this means that the debt may rise from the current level of 35 per cent to at most 45 per cent, after which it will start to decrease. Based on a descriptive analysis, we note that the current interest rate level is unusually low. Furthermore, we note that the slope of the yield curve is now steeper compared with the average difference between the ten-year interest rate and the three-month interest rate which has been measured since the mid-1990s.

The choice of future *maturity in the nominal debt* is affected by factors that now point in different directions. A generally uncertain economic development and uncommonly low interest rates indicate that maturity should be extended. The fact that it is unusually expensive to extend and that it is relatively highly probable that low interest rates will persist for a long time to come indicates that maturity should be shortened. Given the current uncertainty, we consider overall that it is sensible to wait before changing the maturity.

One difference compared with the previous proposed guidelines is that no interest rate refixing period for the nominal krona debt has been decided upon when producing the proposal. The benchmark of 3.5 years established for the year was rescinded before sale of the 30-year government bond. According to the previous issue plan, a maturity of 3.5 years would have been achieved by increasing the sales volumes of other bonds. Since the higher borrowing requirement was covered by the 30-year bond, the auction volumes of other government bonds could remain unchanged. Accordingly, the interest rate refixing period of the debt with a maturity of longer than twelve years became

shorter, to amount to 3.1 years on 31 August. With the current issue plan, the interest rate refixing period is calculated at 3.0 years for 2010.

We are proposing that the nominal krona debt with maturities of up to twelve years should continue to be steered towards a maturity benchmark of 3.0 years. The outstanding debt with maturities of over twelve years (in practice, the current 30-year government bond is now around SEK 38 billion. Since there is great uncertainty about the prerequisites for issues with maturities of over twelve years, we are proposing a volume ceiling of SEK 60 billion during 2010. In this way, we are creating scope for future emissions to some extent, which we can make use of without the volume becoming excessively great.

It is proposed that the *maturity of the inflation-linked debt* should have a slightly shorter maturity compared with the preliminary benchmarks set by the Government last year. We propose that it should be 9.4 years by the end of 2010, 8.7 by the end of 2011, and 9.0 years by the end of 2012.

We propose that the *maturity of the foreign currency debt* should be kept unchanged at 0.125 years for the coming years.

No changes are proposed in the *debt shares*. This means that the inflation-linked debt should be 25 per cent of the debt in the long term and the foreign currency debt 15 per cent. The remainder is accounted for by the nominal krona debt.

We further propose that the rules for *positions* between kronor and other currencies be combined in one decision. The rules on positions between kronor and other currencies are currently split between two decisions of a different kind. Our proposal is that these decisions do not need to be taken with derivatives and should not be subject to the Value-at-Risk mandate that governs other positions.

In the light of the turbulence of recent years in the economies and financial markets, we discuss our *experiences of the control system*. The decision levels and decision parameters

are, for example, established by the control system. We consider that the control system functions satisfactorily. Designing a control system which can automatically cope with every conceivable event – such as the turbulence of recent years – is neither possible nor appropriate.

Finally, we clarify how the Debt Office measures the central government debt. The background to this is that there are several ways of measuring the debt and that several measures exist. To increase transparency, a methodical review of these is justified.

1 New arrangement of the proposed guidelines

The guideline process has had its present form since 1998 and these are the twelfth proposed guidelines. During these years, innumerable decisions have been taken that have affected central government debt management. These decisions are based on many discussions. Over the years, it has however, become difficult to obtain a survey of decisions and discussions. We have adopted a new arrangement for our proposed guidelines to create a better overview and clarity. Furthermore, we have summarised previous discussions in a separate document.

This year's proposed guidelines are arranged differently from previous proposed guidelines. The intention is to create increased clarity and a better overview of the decisions that govern central government debt management. Besides the current proposals, we include in this year's proposal older decisions of a principled kind, which still have a bearing on central government debt management. We further propose that some of what have been referred to in previous guideline decisions as "the Government's starting points" or "The Government's assessments" which govern management be made into explicit decisions. We also bring to the fore certain formulations of the nature of decisions that have previously been embedded in the texts. Finally, we quote certain parts of the Act on Central Government Borrowing and Debt Management (1988:1387) and the Ordinance (2007:1447) containing Instructions for the Debt Office that guide our work.

All proposals are shown in tabular form in section 2. In the cases, where we are not proposing any change, only a brief comment is made to the effect that it corresponds to the current guideline. Cases, where we are proposing a change are commented on directly or a reference is made to a separate section with a longer justification. In section 3, we discuss the bases for the proposal, primarily the development of the borrowing requirement and market conditions, i.e., factors that affect the direction of central government debt management. In the following section, we give reasons for changes in the guidelines. This year, we discuss, for example, the maturity of the nominal krona debt.

Finally, our new document "Central Government Debt Management – Decisions, Assessments and Underlying Analyses" is brought to the fore." In this document, we have summarised previous discussions and reasons underlying proposed guidelines and decisions. Current decisions are also shown. We will keep this document updated so that it reflects the most recent discussions and decisions. The document will therefore be a good complement to the recurrent proposed guideline and decision documents and provide a good overview of the direction of central government debt management.

2 Proposed guidelines 2010–2012

Here we show our proposed guidelines for central government debt management during 2010–2012. The proposed guidelines are preliminary for 2011 and 2012.

2.1 The goals of central government debt management

The central government debt shall be managed in such a way as to minimise the long-term cost while taking into account risks. Furthermore, management shall take place within the framework of the requirements set by monetary policy.	Act on Central Government Borrowing and Debt Management (1988:1387).

2.2 The task of the Debt Office and the purpose of borrowing

According to the Act on Central Government Borrowing and Debt Management, the task of the Debt Office is to raise and manage loans to central government.	Ordinance containing Instructions for the National Debt Office (2007:1447).
<p>The Debt Office may raise loans for central government to:</p> <ul style="list-style-type: none"> • finance current deficits in the central government budget and other expenditure pursuant to decisions made by the Riksdag, • provide such credit and perform such guarantees as decided by the Riksdag, • amortise, redeem and buy back central government loans, • in consultation with the Riksbank, satisfy the requirement for central government loans with different maturities, and • satisfy the requirements of the Riksbank for foreign currency reserves. 	Act on Central Government Borrowing and Debt Management (1988:1387).

2.3 The guideline process

The Debt Office shall submit proposed guidelines for central government debt management at the latest by 1 October each year.	Ordinance containing Instructions for the National Debt Office (2007:1447).
The Government shall allow the Riksbank to comment on the	Act on Central Government Borrowing and Debt Management

Debt Office's proposed guidelines.	(1988:1387)
The Government shall make a decision on guidelines for central government debt management by the Debt Office at the latest by 15 November each year.	Act on Central Government Borrowing and Debt Management (1988:1387).
The Debt Office shall submit documentation to the Government for evaluation of central government debt management at the latest by 22 February each year.	Act on Central Government Borrowing and Debt Management (1988:1387).
Every other year, the Government shall evaluate central government debt management. This evaluation should be submitted to the Riksdag by 25 April.	Act on Central Government Borrowing and Debt Management (1988:1387).
The Debt Office shall establish principles for implementation of the guidelines for central government debt management established by the Government.	Ordinance containing Instructions for the National Debt Office (2007:1447).

2.4 The composition of central government debt – debt shares

Proposal	Comment
The share of <i>inflation-linked krona debt</i> should be 25 per cent of central government debt in the long term.	Corresponds to current guideline.
The share of <i>foreign currency debt</i> should be 15 per cent of central government debt.	Corresponds to current guideline.
The control interval around the benchmark should be ± 2 percentage points.	Corresponds to current guideline.
If the foreign currency share is outside the control interval, the share of foreign currency debt should be restored to the benchmark or within the interval if the deviation is due to currency movements.	Proposed new guideline, which clarifies the current arrangement. This rule is currently contained in the reasoning in the proposed guideline decision for 2009.
The Debt Office shall set the benchmark for the distribution of the foreign currency debt among different currencies.	Corresponds to current guideline.
In addition to inflation-linked krona debt and foreign currency debt, central government debt shall also consist of <i>nominal krona debt</i> .	Corresponds to current guideline.

2.5 The maturity of central government debt

Proposal	Comment
The maturity of the <i>nominal krona debt</i> for maturities of up to twelve years shall be 3.0 years in 2010. The direction for 2011 and 2012 shall be 3.0 years.	See section 4.1.
The ceiling for the outstanding volume for maturities exceeding twelve years shall be SEK 60 billion in 2010. The ceiling for 2011 and 2012 shall be SEK 65 billion and SEK 70 billion	See section 4.1.

respectively.	
The maturity of the <i>inflation-linked krona debt</i> shall be 9.4 years at the end of 2010. The maturities at the end of 2011 and 2012 shall preliminarily be 8.7 years and 9.0 years.	See section 4.2.
The maturity of the <i>foreign currency debt</i> shall be 0.125 years during 2010. The direction for 2011 and 2012 shall be 0.125 years.	Corresponds to current guideline.
The Debt Office shall decide on a deviation interval for the benchmarks for the maturities.	Corresponds to current guideline.

2.6 Cost and risk

Proposal	Comment
The balance between expected cost and risk shall mainly be made through the choice of the composition of maturity of the central government debt.	Proposed new guideline to clarify the current arrangement. This wording is included in a number of guideline decisions.
The overarching <i>cost measure</i> shall be the average cut-off yield.	Corresponds to current guideline.
The overarching <i>risk measure</i> shall be the average cut-off yield risk.	Corresponds to current guideline.
The <i>shares</i> of the types of debt of central government debt shall be calculated by a measure that takes into account all cash flows in the central government debt, i.e. also future coupon payments and future compensation for inflation.	Proposed new guideline to clarify the current arrangement. Included in previous guideline decisions as "The Government's starting point".
<i>The maturity</i> shall be measured by an average interest rate refixing period where all cash flows including expected compensation for inflation are included. Cash flows shall not be discounted.	Corresponds to current guideline. However, we propose that it be clarified what the measure consists of.
Positions shall not be included in the calculations of debt shares and maturities (see section 2.8).	Proposed new guideline to clarify the current arrangement.
When taking positions, market values shall be used a measure of costs and risks in management.	Corresponds to current guideline.

2.7 Market and debt maintenance

Proposal	Comment
Through market and debt maintenance, the Debt Office shall contribute to the good performance of the government securities market with a view to achieving the long-term goal of keeping costs to a minimum while taking into account risk.	Corresponds to current guideline.
The Debt Office shall decide on the principles for market and debt maintenance.	Corresponds to current guideline.

2.8 Position-taking

Proposal	Comment
<p>The Debt Office may take positions to reduce the costs of central government debt, while taking into account risk.</p> <p>Position-taking refers to transactions which aim at reducing costs, but which are not justified by underlying loan or investment needs.</p> <p>Positions may be strategic (long term) or operational (current). The Debt Office shall decide on the distribution of the risk mandate.</p> <p>Positions shall be taken with derivative instruments. This restriction applies to all transactions with the exception of strategic positions between kronor and other currencies, see below.</p> <p>Positions may not be taken in the Swedish fixed income market.</p>	<p>Corresponds to current guideline.</p> <p>Proposed new guideline to clarify the current arrangement.</p> <p>Corresponds to current guideline. However, the first sentence has been added for the purpose of clarification.</p> <p>Corresponds to current guideline.</p> <p>Corresponds to the current guideline-</p>
<p>The maximum limit for position-taking shall be SEK 600 million, measured as daily Value-at-Risk at 95 per cent probability. The risk limitation shall apply to all transactions with the exception of strategic positions between kronor and other currencies, see below.</p> <p>Strategic positions in kronor to other currencies are limited to at most SEK 50 billion. These positions need not be taken in derivatives and are exempted from the limitation in terms of Value-at-Risk.</p> <p>Kronor positions shall be built up gradually and announced in advance.</p>	<p>Corresponds to current guideline.</p> <p>See section 4.3.</p> <p>Proposed new guideline to clarify the current arrangement. Currently included in the text of the guideline decision for 2009.</p>
<p>Operational (current) positions in kronor in relation to other currencies may in connection with exchanges between kronor and other currencies be taken to a limited extent. The Debt Office shall state the maximum permitted extent.</p>	<p>Proposed new guideline. Clarifies the possibility that we have of deviating from the currency exchange mandate in addition to our strategic positions in kronor.</p>

2.9 Borrowing in the retail market

Proposal	Comment
<p>The Debt Office shall contribute to reducing the costs of central government debt by retail market borrowing.</p>	<p>Corresponds to current guideline.</p>

2.10 Loans to meet the need of central government loans

Proposal	Comment
<p>The possibility of raising loans to meet the need of central government loans may only be used if required due to threats to the functioning of the financial market.</p>	<p>Proposed new guideline to clarify the current arrangement. Included at present in the guideline decision for 2009.</p>
<p>The Debt Office shall have the right to have outstanding loans in</p>	<p>The Government has established in the guideline decision for</p>

2010 amounting to a maximum nominal value of SEK 200 billion for this purpose.	2009 that the maximum outstanding nominal value for this purpose shall be SEK 200 billion in 2009. We propose that the same amount apply during 2010.
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2.11 Management of funds, etc.

Proposal	Comment
The agency shall deposit its funds, to the extent that they are not needed for disbursements, in an account at the Riksbank, a bank or a credit market company, or in government securities or other instruments of debt with a low credit risk. Deposits may be made abroad and in foreign currency.	This rule is contained in the Ordinance (2007:1447) containing Instructions for the Debt Office (section 5). Deposits are an integral part of central government debt management. We propose that the rule be moved to the guidelines to create a better overview of decisions that govern management. See section 4.5.
The Debt Office shall cover the deficits that occur in the Government central account.	This rule is contained in the Ordinance (2007:1447) containing Instructions for the Debt Office (section 6). We propose that this rule be moved to the guidelines. See section 4.5.
Management of exchanges between Swedish and foreign currency (currency exchanges) shall be characterised by predictability and clarity.	The Government took this decision in the guidelines for 2002. The rule is also contained in the Ordinance (2007:1447) containing Instructions for the Debt Office (section 6). We propose that the rule be moved to the guidelines. See section 4.5.
Placements of funds raised through loans to meet the need of central government loans should be guided by the principles stated in the Government Support to Credit Institutions Act (2008:814).	A proposed new guideline to clarify the current arrangement. Exist at present as reasoning text in the Guideline Decision for 2009.

2.12 Consultation and collaboration

Proposal	Comment
The Debt Office shall consult the Riksbank on matters concerning the components of borrowing that may be assumed to be of great importance for monetary policy.	Ordinance (2007:1447) containing Instructions for the Debt Office.
The Debt Office shall consult the National Institute of Economic Research and the National Financial Management Authority on matters concerning the authority's forecasts of the central government borrowing requirement.	Ordinance (2007:1447) containing Instructions for the Debt Office.
The Debt Office should obtain the points of view of the Riksbank on how the funds borrowed to meet the need for central government loans are to be placed in accordance with the Ordinance (1998:1387) containing Instructions for the Debt Office.	We propose that this obligation to consult be included in the Instructions for the Debt Office. This text is currently in the guideline decision for 2009.

2.13 Evaluation

Proposal	Comment
Evaluation of board decisions shall be made in qualitative terms in the light of the knowledge available at the time of the decision. Where possible, the evaluation shall also contain	Corresponds to current guideline.

<p>quantitative measures.</p> <p>Evaluation of the operational management should, inter alia, cover borrowing and management of the different types of debt, market and debt maintenance measures as well as management of currency exchanges.</p> <p>The realised cost difference between inflation-linked and nominal borrowing should be reported for inflation-linked borrowing.</p> <p>The cost saving compared with alternative borrowing should be reported for borrowing in the retail market.</p> <p>Strategic and operational positions within the given risk mandate should be currently taken up as income and evaluation be made in terms of the market values.</p>	<p>Corresponds to current guideline.</p> <p>Corresponds to current guideline.</p> <p>Corresponds to current guideline.</p> <p>Corresponds to current guideline.</p>
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3 Prerequisites

The size of the central government debt and the future borrowing requirement affect the direction of central government debt management. This management is also designed to take into account the working of the loan market. This assumes, inter alia, knowledge of the depth of the loan market and expected interest rate levels for different maturities. Central government debt management is moreover designed to take into consideration covariance between the borrowing requirement and terms on the loan market.

3.1 The development of the borrowing requirement and the amount of central government debt

Central government debt has exceeded SEK 1,000 billion since 1993, most often by a broad margin. This debt has increased when economic growth has been weak and decreased when growth has been strong. The pattern is explained by low income and high central government expenditure coinciding with a downturn, while the converse applies during an upturn. At present, the Swedish economy is in a downturn, although central government debt has not yet started to rise. However, the picture looks different for the next few years.

The political ambition to maintain a surplus in central government finances on average over a business cycle is expected to lead to a continued reduction in central government debt. This ambition is based on the future composition of the population with a long period with a larger proportion of elderly persons. This will lead to a greater number of dependants for economically active persons in the next few decades. This burden can be lightened by allowing there to be a deficit in the central government budget during that period, which assumes low central government debt in the initial position. If the goal of the Riksdag and the Government of a one per cent surplus in general government net lending, over a business cycle, is achieved, central government debt will decrease by an average of SEK 15–30 billion per year.

Forecasts from the National Financial Management Authority (ESV), the National Institute of Economic Research (NIER) and the Government indicate, however, a development in the next few years where central government debt will increase. This is due to an expectation of relatively weak years for public finances due to a very weak state of the economy, both in Sweden and in the rest of the world. Despite forecasts being made with somewhat different calculation assumptions, in particular with regard to the extent to which changed tax and grant rules have been taken into account, the picture is unequivocal.

The surplus target and the borrowing requirement

The Riksdag's and the Government's surplus goal for general government net lending entails a long-term reduction in central government debt. In this section, we sketch what different outcomes for the goal mean for the development of central government debt. It is important to point out that these calculations are in no way to be equated with the Debt Office's ordinary forecasts which are published three times a year. These forecasts are made in a completely different way and only extend over the current and following year. Accordingly, the calculations presented here do not serve as the basis for any operational loan plans in the Debt Office's central government debt management. However, these calculations are part of the assessment of the future amount of central government debt.

On the basis of the Riksdag's and the Government's goal of a surplus equivalent to 1 per cent of GDP on average over a business cycle, it is possible to make a rough calculation of the net central government borrowing requirement. The surplus target refers to the net lending for the whole of the public sector, including central government, the old age pension scheme and the local government sector.¹ By first calculating net lending in the old age pension scheme and the municipalities, central government net lending can be calculated as a residue up to the equivalent of one per cent of GDP. The central government net borrowing requirement is then calculated as net lending in the state, with reversed signs, adjusted for those payments that affect the borrowing requirement but not net lending.

Net lending in the old age pension scheme, which consists of the AP (pension insurance) funds, is calculated to fall sharply during 2009, to be close to zero for some years to come. This decline is explained by income in the old age pension scheme decreasing due to share dividends and interest income both falling. At the same time, payment of pensions

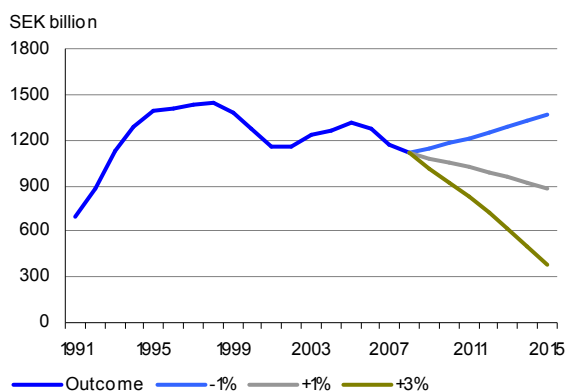
¹ The local government sector consists of municipalities and county councils.

increases in 2009 by almost 10 per cent. Underlying this increase is both an increase in the number of old age pensioners and a comparatively high upward adjustment of pensions. For the years around 2015, net lending in the pension scheme is calculated at the equivalent of 0.3 per cent of GDP.

Net lending in the local government sector is expected to be negative for 2009 and 2010 at on average -0.1 per cent as a percentage of GDP.² As from 2011, local government net lending is assumed to amount to an average of 0.1 per cent as a proportion of GDP. While the municipalities have reported overall a slightly greater surplus in recent years, it is difficult to believe that they can sustainably maintain high positive net lending at the same time as requirements for public services grow apace with an increase in the demographically conditioned needs. It is therefore assumed that the local authorities will meet the balance requirement but not much more. This assumption seems reasonable in the light of the local authorities having net lending of an average of 0.2 per cent as a share of GDP during the period 1993–2008.

Consequently, central government net lending for 2009–2015 can be estimated as corresponding to 0.5–1.1 per cent of GDP. Since the surplus in central government disbursements (and thus the change in central government debt) in principle corresponds to central government net lending, there should be an annual central government surplus of SEK 20–35 billion. Overall, this gives a gradually decreasing level of central government debt from the 2008 level of SEK 1,119 billion down to SEK 900 billion in 2015 (see figure 1).

Figure 1. THE DEVELOPMENT OF CENTRAL GOVERNMENT DEBT APPLYING DIFFERENT ASSUMPTIONS ON THE SURPLUS TARGET



² Source: National Institute of Economic Research, *The Swedish Economy*, August 2009.

In projections on the development of the debt, it is appropriate to take into account deviations by introducing an interval around the formal surplus target of one per cent. Let us therefore assume a deviation of two percentage points over and under the target. The size of the interval can be compared with the historical development. Since the surplus target was introduced in 2000, the state's budget balance has on average amounted to 0.9 per cent of GDP, with a standard deviation of 2.3 percentage points. The deviation assumed above means that even if the debt can be expected to decrease over a period of some years by an amount in the range of SEK 200 billion, repeated deviations in the same direction during this period entail an uncertainty interval of SEK ±500 billion at the end of the period (see figure 1). During cyclical downturns and upturns, deviations usually move in the same direction. However, the interval will be less if the deviations move in different directions in particular years, which must be considered as being most probable viewed over a whole business cycle.

It must be added to the above reasoning that the Government can decide to deviate from the long-term goal for relatively long periods. At present, the forecasts indicate that the general government net lending in the next few years will be below the surplus target.

Forecasts of the borrowing requirement

An alternative way of looking forward is to use the available forecasts as a basis. By replacing the Riksdag's and the Government's ambition for general government net lending by forecasts of the central government net borrowing requirement, it is possible to obtain a supplementary picture of the development of central government debt in the next few years. This forecast information will, of course, be of greatest use in the short term (within a couple of years), while it more resembles an impact assessment in the longer term where development is permitted to be governed by, for example, demographic changes.

The Debt Office publishes regular forecasts of the central government borrowing requirement for the current and following year. According to the Central Government Borrowing Report of 12 June 2009, the net borrowing requirement will be positive for both years, and the central government debt will accordingly rise.

The corresponding assessment is made by the National Financial Management Authority (ESV), NIER and the Government.³ Unlike the Debt Office, they also make forecasts for a somewhat longer period. However, the

³ Forecasts from ESV are shown in the September 2009 Forecast. NIER refers to the information reported in *The Swedish Economy*, August 2009 and the Government's forecast is from the Budget Bill for 2010.

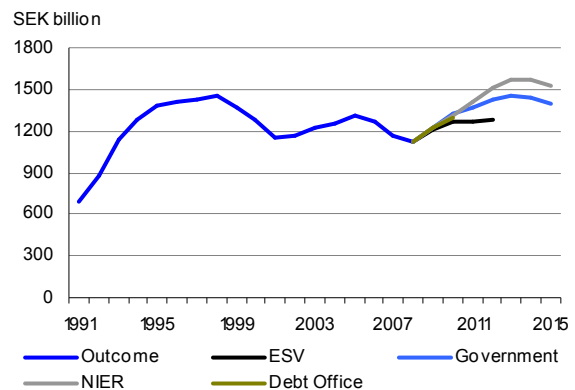
methods of these forecasts differ from the methods for the short-term forecasts. Among other things, models are used according to which the economy in the course of a few years adapts to a balanced use of resources. Furthermore, the forecasts are adapted to the aim of the Riksdag and the Government as regards the general government net lending, possibly taking into consideration demographic conditions. Under these slightly different prerequisites, the National Financial Management Authority produces forecasts up to 2012, while both NIER and the Government produce forecasts that extend beyond 2015.

In common for all these forecasts is that central government net debt is expected to increase in the next few years (see figure 2). At the end of 2009, the debt is expected to slightly exceed SEK 1,200 billion. The debt is expected to amount to around SEK 1,300 billion for 2010 and the differences between the forecasts are negligible in the context of guidelines. For subsequent years, NIER makes the assessment that the central government debt will continue to increase to exceed SEK 1,500 billion in 2015. The Government makes the assessment, however, that the debt will increase somewhat more slowly. Moreover, this increase of the debt will in principle cease in 2013 when it approaches SEK 1,500 billion. The National Financial Management Authority, whose forecasts only extend to 2012, is more positive in its view of the development of the debt. According to their calculations, the rate of increase of the debt will slacken markedly already in 2011 and thus not exceed SEK 1,300 billion then. This means that for 2012, i.e. the last year for which the current proposed guidelines apply, the forecasts indicate in round figures that central government debt will be between SEK 1,300 billion and SEK 1,500 billion.

To be able to make full use of the forecasts, it must be noted that they differ in a number of important respects. To start with, the forecasts are made at different times and they may accordingly be based on different macroeconomic information and different regulatory frameworks.⁴ The National Financial Management Authority (ESV) and the Government make forecasts for the first three years assuming unchanged tax and grant rules, as well as an unchanged direction of public consumption. The exception is that the Government includes effects of the proposed measures in the Budget Bill. The ESV does not make any forecast for the subsequent years, at the same time as the flexibility of the Government's forecast increases; among other things, the Government's forecast reflects the effects of demographically conditioned needs for care and social services. This means that public

consumption is adapted so that the standard per recipient can be maintained unchanged.

Figure 2. THE DEVELOPMENT OF CENTRAL GOVERNMENT DEBT, OUTCOME 1991–2008 AND FORECASTS 2009–2015



Unlike ESV and the Government, NIER makes an assessment of the fiscal policy direction for all coming years. Measures that affect net lending are distributed to income, expenditure and public consumption with the aid of standardised methods. In the longer term, in the “medium-term estimate” up to the end of 2020, expenditure is only adjusted for public consumption and transfers to households. In this way, net lending is adjusted so as to amount to 1 per cent of GDP at the end of the period, and thus the Government is assumed to comply with the surplus target over time.

These method differences mean that ESV and the Government anticipate a relatively moderate increase of central government debt in 2012 compared with NIER and the Government, since the latter have taken into account a clearly more expansive fiscal policy approach in 2010, justified, inter alia, by the very weak state of the economy. In the years from 2013 onwards, for which the Government no longer reports details on income headings and expenditure areas, the rate of increase slows down in the Government's forecast of the development of central government debt. The difference in the amount of central government debt compared with NIER then ceases to grow. The different development rates may somewhat simplified be described as that NIER also takes into account fiscal policy measures from 2011 onwards.

Conclusion

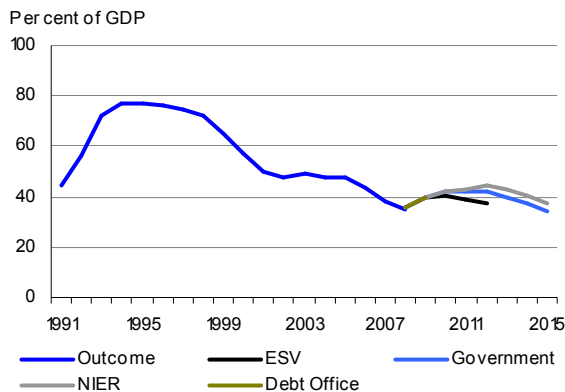
The Riksdag's and the Government's surplus targets for general government net lending entail a long-term falling central government debt. Our calculation shows that central government debt would fall to around SEK 900 billion if the target was met for the period 2009–2015. The calculation also provides a picture of what deviations from the target

⁴ In purely technical terms, the Government reports forecasts for both the budget balance as well as consolidated central government debt. NIER, however, only provides a forecast of central government net lending, from which it is possible to approximately calculate the budget balance and central government debt.

would mean for the development of central government debt. If net lending was two percentage points lower than the target, central government debt would attain a size of almost SEK 1,400 billion in 2015.

An alternative way of looking forward is to use temporary forecasts as a basis. The forecasts we studied show that there are a number of different assessments of the development of central government debt. The forecasts indicate that central government debt in round figures amounts to SEK 1,300 billion to SEK 1,500 billion for 2012 and to around SEK 1,500 billion for 2015. Viewed in relation to GDP, this means that the debt fluctuates around 40 per cent (see figure 3). The results are equivalent to annual general government net lending of -1 to -2 per cent of GDP.

Figure 3. THE DEVELOPMENT OF CENTRAL GOVERNMENT DEBT IN RELATION TO GDP, OUTCOME 1991–2008 AND FORECASTS 2009–2015



The differences in the forecasts show that considerable uncertainty is attached to forecasts of future development. One factor which contributes to this uncertainty is the interpretation of the Riksdag's and the Government's ambition with regard to general government net lending. To what extent will this goal be weighed against other political priorities? A further factor that contributes to uncertainty is the cyclical development. In the space of a few years, the borrowing requirement is assumed to follow from an economy with a balanced use of resources. However, for 2010, the borrowing requirement is expected to be relatively high, inter alia, due to the cyclically determined low tax revenue from capital and work.⁵

All in all, the above indicates that central government debt will increase during the period covered by this year's proposed guidelines. This increase is expected to be more

marked than that which took place in the mid-2000s but not at all as dramatic as in the mid-1990s. Accordingly, it is reasonable to base the following proposed guidelines for central government debt management on a debt in the range of SEK 1,300 billion during 2010, and which up until 2012 may further increase. In relation to GDP, this means that the debt will rise to just below 45 per cent, to then start to fall again.

3.2 The characteristics of the yield curve

Borrowing by the Debt Office, which, in principle, corresponds to the sum of the net borrowing requirement and maturing loans, takes place mainly in the Swedish fixed income market. The conditions for this borrowing can in a theoretical perspective be described with the aid of a yield curve, i.e. the level of interest rate is described as a function of its time to maturity. The loan instruments that make up the yield curve are in this context T-bills and government bonds. Note in particular that the yield curve provides a snapshot of the level of the interest rate for marginal borrowing. In practice, there are limitations on the volume that can be borrowed at a given interest rate. For large loan volumes at a particular maturity, it is reasonable to believe that the interest rate will increase within this segment.

The characteristics of the yield curve which are of most interest are the level and the slope, where the costs of the central government debt mainly depend on the level. The trade off between cost and risk depends, however, on the slope of the yield curve. Moreover, the risk is affected by the volatility of the interest rate at different maturities, i.e. how much and how quickly the interest rate changes. While the immediate impact on costs from a change in the interest rate level will depend on the maturity chosen due to the maturity determining how large a portion will have interest rates refixed during each period. If rises and falls in the interest rate level set off one another over time, the gain of having a long debt when interest rates rise will be reduced by the losses occurring when the yield curve moves downwards again. This reasoning leads to the level as such being of subordinate importance for the choice of maturity and that the trade off, i.e. the ability to bear rapidly increasing interest rates in the short term is what primarily governs the choice of maturity.

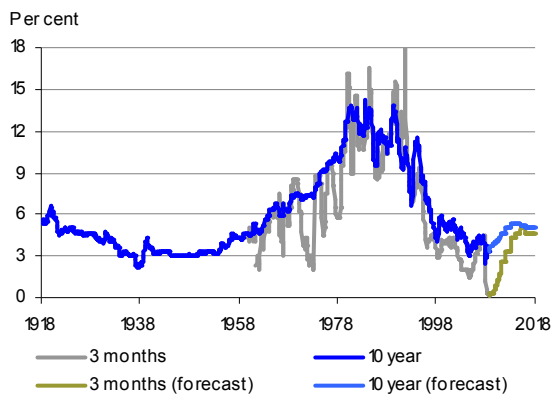
The risk of rapidly increasing interest rates depends as has been said on the volatility of the interest rate but also on the level of interest rates in the initial position. If the current levels are viewed as extremely high or low, it is appropriate to take this into consideration in the Debt Office's proposed guidelines, which are submitted to the Government, despite the guidelines mainly reflecting the long-term conditions.

⁵ It should be noted that the level of the current year's tax payments depends to a certain extent on the state of the economy in previous years.

Continued low interest rates in the coming years

It is extremely difficult to specify a normal interest rate level, and thus what can be expected in the future. By studying historical interest rates (see figure 4) it appears that the levels in 2009 are remarkably low. This is particularly the case for the three-month interest rate which has fallen below one per cent. The ten-year government bond yield has also been very low, for short periods below three per cent, in comparison with the past decade when it fluctuated between four and six per cent in round figures. Looking further back in time, it seems as if current interest rate levels are considerably lower than those that predominated during the 1970s and 1980s, although direct comparisons are made difficult by today's fixed income markets not having many similarities with the regulated markets that characterised that period. While it is the case that today's levels are not wholly different from those from the 1920s to the end of the 1960s, going so far back in time means that comparisons are more uncertain since the mode of functioning of the economy may have changed in many respects.

Figure 4. TEN-YEAR AND THREE-MONTH GOVERNMENT BORROWING RATES



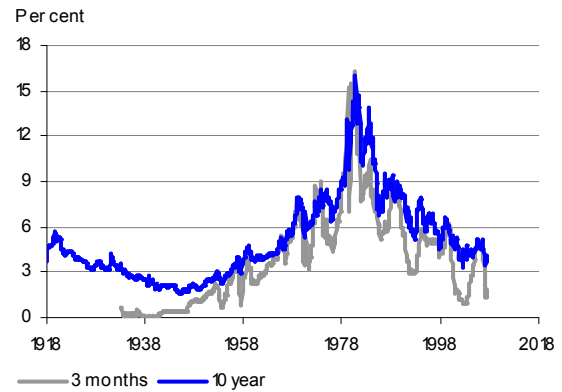
Sources: Reuters EcoWin, Debt Office.

The picture of interest rate levels does not change markedly, however, when moving over to the US fixed income market (see figure 5), which unlike the Swedish market has not been characterised by extensive regulation. In this market too, interest rates with a long maturity were low up to the 1960s after which they rose until the beginning of the 1980s, to then fall back to around four per cent.

As regards the level of yield curves, in summary, it can be pointed out that current levels are unusually low, and that short periods with relatively low or high levels have occurred on repeated occasions in recent decades. At present, the three-month rate can be regarded as being particularly low. Taking into consideration the current mode of functioning of the economy, the variable exchange rate and credible

inflation target, the level of interest rate is expected in the next few years to be in line with the years from the mid-1990s until the present day.

Figure 5. TEN-YEAR AND THREE-MONTH GOVERNMENT BORROWING RATE, USA



Source: Reuters EcoWin.

The yield curve is steeper than for a long time

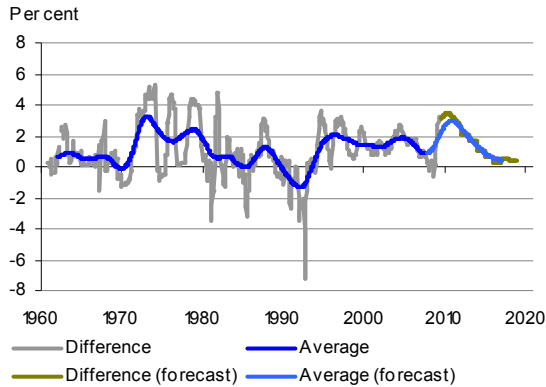
The difference between the level of the ten-year rate and the same on the three-month rate provides a view of the slope of the yield curve. It is accordingly advantageous to show both in the same graph (see figure 4). This shows, inter alia, that the level of the interest rate for the two maturities track one another well. They both rise and fall at about the same time. The three-month rate has, however, fluctuated markedly more than the ten-year rate, in particular up to and including the mid-1990s. The change that then took place may be explained by the new monetary policy regime that commenced in November 1992 with a variable exchange rate and inflation target of two per cent per year. The fall in the interest rate level that can be seen can be explained by this reorientation with a braking of both inflation and inflationary expectations.

In order to better study the difference between long and short interest rates, i.e. the slope of the yield curve, the difference is calculated between the ten-year rate and the three-month rate, (see figure 6). The intention is to see whether there is a stable historical pattern.

Initially, the absence of clear connection between the level of the yield curve and its slope may be noted. It is also evident that the yield curve has usually had a positive slope. On average, the ten-year rate has exceeded the three-month rate by over one percentage point. The flat interest rate curve which could be noted in September 2008 was therefore to some extent deviant and has during 2009 been replaced by a yield curve which is steeper than normal. In this way, the pattern that has often occurred over time, with yield curves

with a negative slope being relatively quickly replaced by curves with a positive slope, has again been repeated.

Figure 6. THE DIFFERENCE BETWEEN TEN-YEAR AND THREE-MONTH GOVERNMENT BORROWING RATE, SWEDEN



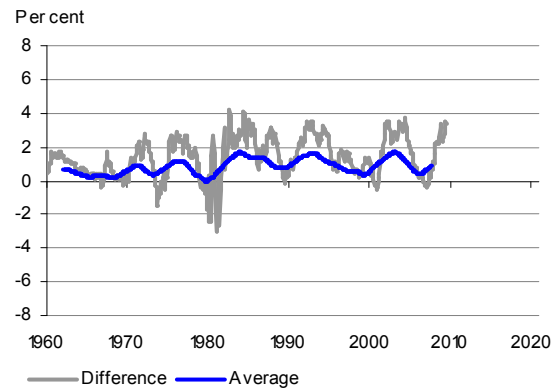
Sources: Reuters EcoWin, The Debt Office.

The variation in the interest rate difference has been lower since the mid-1990s compared with the preceding period. This may be an effect of the new monetary policy regime with a variable exchange rate, an independent central bank and a clear and credible inflation rate target. To the extent investors rely on the inflation target being complied with, the variation in inflation expectations should decrease, which in turn reduces the nominal yield requirements of investors on long investments. One possible effect of an independent central bank and an inflation target is thus that the average variation of the interest rate difference will also in future be lower than during the 1970s and 1980s when inflation was at times very high.

As in the above analysis of the level of the interest rate, it is noted that the data material extends over a period with different monetary and exchange rate policy regimes, which means that it may be useful to make a comparison with conditions in the US fixed income market (see figure 7).

It can again be noted that the basic pattern in the United States is the same as in Sweden. Long interest rates have over time been markedly higher than short and periods with flat and inverted curves have periodically recurred. One difference in the pattern which may be worth mentioning is that there is no reduction in the United States in the variation in the interest rate difference. This possibly indicates that the reorientation of Swedish monetary policy has led to a reduction in volatility in the Swedish fixed income market.

Figure 7. THE DIFFERENCE BETWEEN THE TEN-YEAR AND THE THREE-MONTH GOVERNMENT BORROWING RATE, USA



Source: Reuters EcoWin.

The next characteristic of the yield curve which is interesting to shed light on in more detail is whether the difference between long and short interest rates, viewed over longer periods, is stable over time. For this reason, a centred sliding average value that extends over four years has been included in Figure 6 and Figure 7.

With the exception of some years at the beginning of the 1990s, the average value of the slope has been positive for Sweden. The period with a negative slope is probably explained by the downward shift of inflation that took place in connection with the changeover to inflation targets in monetary policy. In the case of the United States, the average value of the slope has in principle been positive throughout the period studied. It is furthermore evident that the average value of the slope for Swedish interest rates has in most cases been less than two per cent and that this applies to the whole period for US interest rates. Neither is there anything that indicates that the average slope should have increased or decreased. There is accordingly nothing to indicate that the future pattern will be different.

Conclusion

The descriptive analysis of the characteristics of the yield curve indicates in the first place that interest rate levels can be both high and low for long periods. Taking into consideration the considerable uncertainty about future levels, it is not suitable to base strategic decisions on a forecast of these levels. However, it may be justified to take into account current levels when choosing the time for, for example, changes in maturity.

In the second place, we can note that the slope in general is positive and does not seem to have any direct link to the level of interest rates. It may thus be possible to reduce the

expected costs of central government debt at the price of a higher interest rate refixing risk by shortening the maturity of the debt. This is conditional on the yield curve in future having the same characteristics as during the analysed period. We do not know, of course, that this will be the case. However, we do not see any crucial reasons which indicate that the characteristics will be changed.

4 Reasons for certain proposals

In this section, we give reasons for our proposal to change the maturity of the nominal kronor debt. We discuss the maturity of the nominal krona debt and the inflation-linked debt. We then discuss the need to combine the two current decisions relating to positions between kronor and other currencies into one decision. We further discuss the control system in the light of experiences of the turbulence of the recent period in the financial markets and economies.

4.1 The maturity of the nominal krona debt

The choice of maturity is of importance for the balance between expected cost and risk. This year, discussion is focused on the maturity of the nominal krona debt.

Current guidelines and proposals

The benchmark for the interest rate refixing period of the nominal krona debt was 3.5 years until 13 March 2009. The Government then decided to enable the Debt Office to issue a government bond with a long maturity. This was done by temporarily rescinding the benchmark for the maturity of the nominal krona debt.⁶

On 23 March 2009, the Debt Office issued a 30-year nominal government bond with a volume of SEK 38 billion. This bond was sold with a yield of 3.75 per cent. Due to this emission, the interest rate refixing period of the nominal krona debt rose from 3.4 years to 5.2 years (the duration rose from 3.0 years to 3.4 years).

It should be noted that the issue of the 30-year bond meant that we did not need to increase the sales volume for other government bonds from SEK 3 billion to SEK 5 billion per auction, which is shown by the report Central Government Borrowing 2009:1 on 4 March 2009. If this had happened, the interest rate refixing period of the nominal krona debt would have been 3.5 years. Besides this increase, the interest rate refixing period of the debt with a maturity of up to twelve years would be gradually decreasing to amount to 3.1 years on 31 August. This meant a shortening of the interest rate refixing period from 3.5 years to 3.0 years for 2010.

For 2010, the Debt Office's proposal is that the interest rate refixing period of the nominal krona debt for instruments with a maturity of up to twelve years should be 3.0 years. The direction for 2011 and 2012 should also be 3.0 years. For loan instruments with a maturity exceeding twelve years, the ceiling for the outstanding volume shall be SEK 60 billion

during 2010. The ceiling for 2011 and 2012 shall be SEK 65 billion and SEK 70 billion respectively.

General starting points

The starting point for the choice of maturity for the coming years is taken in the central government debt and the maturity we have at present. The average interest rate refixing period for the nominal krona debt was 5.5 years on 31 August. Loan instruments with a maturity of up to twelve years contributed with 3.1 years and the long 30-year bond with 22.2 years.

In practice, a balance is struck between expected cost and risk largely through the choice of maturity. A long maturity entails namely that the interest rate is refixed on a smaller part of the debt per unit of time whereupon uncertainty about future interest rate changes decreases. At the same time, a longer maturity means that the expected cost will be higher. The trade-off between expected cost and risk depends, however, on the characteristics of the yield curve. We therefore refer back to section 3.2 where we presented a descriptive analysis of the yield curve and the current conditions in the loan market.

With reference to the maturity profile for the nominal krona debt being very uneven given the introduction of the 30-year bond, it is no longer as natural as before to control debt management by a maturity benchmark. This is due to the already very small deviations in the issuance plans for the long bond having a relatively great impact on the overall average interest rate refixing period.

At the same time, it is difficult in current circumstances to determine an appropriate size of issue volumes. The Debt Office thus makes a decision on an interest rate refixing period for the part of the nominal krona debt which has a relatively even maturity profile, i.e. for instruments with a maturity of up to twelve years, and a ceiling on the volume of loan instruments with a maturity longer than twelve years.

Instruments with a maturity of twelve years

In normal circumstances, i.e. when interest rate levels cannot be said to be abnormally high or low, the choice of maturity is

⁶ The Government further instructed the Debt Office to submit a proposal for a new benchmark after any issue of long-term government bonds had taken place.

mainly governed by the slope of the yield curve and interest rate volatility for different maturities. This circumstance changes if the interest rate levels in the initial position were to be perceived as extreme in any direction. Interest rate increases and decreases would then no longer, in anticipation, cancel one another in the longer term and it would be possible to make use of this by fixing a larger or smaller proportion at long interest rates. This was in principle what the Debt Office did on 23 March by issuing the 30-year government bond with a yield of 3.75 per cent. Since then, interest rates have risen by almost 4 per cent. There are no indications at present that the interest rate will fall in the future, and the possibility of "fixing" low long interest rates has accordingly decreased. We are accordingly again in a situation where the choice of maturity is mainly governed by the slope of the yield curve.

At present, the yield curve is steeper than normal, which in other words means that the premium paid for long-term borrowing is unusually large. The difference between three-month government borrowing rates and ten-year government borrowing rates was around 3.2 percentage points on 31 August. This means that the saving can be made in the short term by borrowing with a short maturity can be relatively large. The saving shall, of course, be viewed in relation to the possible additional cost that may arise in the situation where short interest rates become higher than long interest rates for a long period. The information in section 3.2 indicates, however, that the saving should exceed the additional cost. In addition, the Debt Office has in previous proposed guidelines shown that the increase in risk is small in relation to the expected reduction in costs even when the yield curve is considerably flatter than can be expected in the next few years.

The Debt Office's conclusions after having studied the conditions in the Swedish central government loan market are, firstly, that the difference between long and short interest rates is currently greater than for many years. This is caused by the large difference that can be attributed to the current state of the economy and at the same low key policy rate. Apace with the strengthening of the economy and improvement of the state of the labour market, it is reasonable to envisage a return to a difference in the range of one percentage point. This normalisation is expected to take place in a couple of year's time.

The steep yield curve means that a shortening of the maturity would produce a substantial reduction in cost in relation to the increase in risk in the short term. At the same time, interest rates with a long maturity are also low in a historical perspective. Long borrowing can therefore acquit itself well in terms of cost over a long period of time compared with short borrowing. It is therefore difficult to draw any clear conclusion about the benefits in the form of cost and risk.

In previous years' proposed guidelines, the Debt Office has discussed in detail how the state's risk propensity should reasonably be affected by the state of public finances. Risk propensity is about the view of variations in future interest costs. The state of public finances refers, inter alia, to the level of the budget balance and net lending as well as the size of government debt in relation to GDP. The conclusion is that the state's scope for risk-taking in exchange for lower expected costs increases apace with the strengthening of public finances and vice versa. The Government has drawn the same conclusion in the guidelines decisions.

Primarily due to the lower debt ratio on the current occasions, i.e. central government debt in relation to GDP, the Debt Office has indicated in the most recent guideline proposals the possibility of reducing the expected costs of central government debt at the price of slightly higher risk. At present and for future years, forecasts of the debt ratio are made corresponding to 40–45 per cent of GDP, see section 3.1. This is an increase compared with the bottom notation in 2008 of 35 per cent of GDP. This means that it is reasonable that the state, with a view to reducing the extent of provision for risk, now accepts slightly higher costs for central government debt management than appeared reasonable when the state of public finances appeared to be brightest.

An offsetting factor in this context is the Riksdag's and the Government's surplus targets, which can be expected to lead to a long-term reduction in central government debt. Since the surplus target is long term and it is at present difficult to distinguish a downturn in the debt ratio, this offsetting factor will be of subordinate importance in this year's proposed guidelines as regards the view of the state's risk propensity.

To summarise the above discussion, we note that the changed trade-off between expected cost and risk indicates a shortening of the maturity. At the same time, the deterioration in public finances makes it desirable to reduce the risk in debt management. These two factors together lead the Debt Office to recommend unchanged maturity for the part of the nominal krona debt with a time to maturity of up to twelve years.

In addition to the appearance of the yield curve (which provides a theoretical picture of conditions in the central government loan market) and the state of public finances, it is necessary to take into account how borrowing should take place in practice. Bearing in mind the continued high level of demand for T-bills and a steep yield curve as well as limited opportunities for holding up the maturity of the nominal krona debt with the aid of lower swap volumes, it is reasonable to propose an average interest rate refixing period of 3.0 years. Together with the 30-year bond, the maturity will then exceed 5 years, which reflects the lower aggregate risk.

Instruments with a maturity of more than twelve years

We are proposing a volume ceiling for loan instruments with a maturity of over twelve years, which in practice concerns what is now the 30-year government bond. The outstanding debt with a maturity of over twelve years is at present around SEK 38 billion. We are not intending to use the 30-year bond for regular funding. However, we have announced that we will issue additional volume on a few occasions, inter alia, to be able to contribute to liquidity and to make use of periods with strong demand for long bonds. However, the extent to which this will take place is very uncertain. At the same time, relatively small issue volumes also have a strong impact on the maturity of the nominal krona debt. It is therefore inappropriate to include this bond in the maturity benchmark.

We propose instead a ceiling on the outstanding volume of nominal bonds with a longer maturity than twelve years. We propose that this ceiling be set at SEK 60 billion for 2010. This thereby creates scope for continuing bond issues to some extent without the volume becoming excessively large.

Conclusion

At present, there is uncertainty about the state of public finances and the development of the borrowing requirement in the coming years, which makes it difficult to take decisions on the maturity of the nominal debt. This picture is moreover complicated by there being reasons that point in opposite directions towards an appropriate maturity. All in all, we consider that this complex picture argues for it being sensible to wait before changing maturity.

We consider that it is appropriate to steer the nominal debt towards maturities of up to twelve years with a maturity benchmark of 3.0 years. The maturity of this part of the debt is accordingly in line with the maturity of the debt which had ensued from the issue volumes which we presented on 4 March 2009.

We propose a volume ceiling of SEK 60 billion for instruments with a time to maturity of over twelve years, which at present amount to around SEK 38 billion. This does not concern regular funding but that we can contribute to liquidity on a few occasions and to keep down the long-term costs of central government debt by making use of periods with a high level of demand for long bonds.

4.2 The maturity of the inflation-linked debt

The Debt Office's proposal entails a slightly shorter maturity compared with the preliminary benchmarks set by the Government last year. This adjustment is being made for operational reasons.

The maturity of the inflation-linked debt can in practice only be controlled by new issues, exchanges and buybacks. Since the market for inflation derivatives is relatively undeveloped, we consider that it is far too expensive at present to use derivatives to control the maturity of the inflation-linked debt. Part of this picture is also that the issue volumes of inflation-linked bonds are small in relation to the size of the inflation-linked debt, which means that issues have relatively little impact on maturity.

The inflation-linked market is also not as deep and liquid as the market for nominal bonds, which means that we cannot always choose to issue in maturities that would steer the debt towards a particular benchmark for reasons of cost.

With the current issue plan, the average interest rate refixing period of the inflation-linked debt is planned to be 9.4 years at the end of 2010. The maturity will be 8.7 years and 9.0 years at the end of 2011 and 2012 respectively.

4.3 Positions between kronor and other currencies

The rules on positions between kronor and other currencies are today split up between two decisions. As before there is a scope of SEK 15 billion for positions within the VaR mandate. These positions may only be taken with derivatives. In May 2009, the Government decided in accordance with our proposal on a further scope of SEK 35 billion. These positions are not within the VaR mandate and do not need to be taken with derivatives. It does not serve its purpose for positions under the same ceiling with the same purpose to be subject to different regulatory frameworks.

We therefore propose that these be combined into a single decision. We regard it as appropriate for these positions not to have to be taken with derivatives since direct borrowing in foreign currency can also be an effective way of creating an exposure between kronor and foreign currency.

Furthermore, these positions should not be covered by the VaR mandate. The VaR value reflects an upper value for loss with an occurrence of a particular probability. In order for the VaR to be able to be used as a control measure, it should be possible to settle positions to adjust the risk measured in VaR. However, the requirement for transparency means that positions between kronor and other currencies should be settled gradually and over a longer period than is compatible with VaR as a control measure.

4.4 Does the control system need to be changed?

The decision levels and decision parameters are established through the control system for central government debt management. The starting point is the Act on Central

Government Borrowing and Debt Management (1988:1387), where the objectives and overall division of responsibility are established. The Government controls the cost and risk of central government debt at an overarching level. The Government delegates the task to the Debt Office to manage the debt within set frameworks. A further aspect of the control system is how decisions are shaped, for example, the period over which a benchmark is to be achieved.

The basis of the current control system was stated already in the bill which served as the basis for the transition to annual guideline decisions. The exact shape of the decisions has therefore developed over the years. Today, the Government controls central government debt management mainly by stating the benchmarks for debt shares and a control interval for the share of the foreign currency debt. Furthermore, the Government states the benchmarks for the maturities of the type of debt. Other decisions have been delegated to the Debt Office.

According to the Act on Central Government Borrowing and Debt Management (1988:1387), the Government should set guidelines annually. According to this Act, the Debt Office shall submit proposed guidelines to the Government. The proposed guidelines are adopted in November and apply for the next calendar year. The guidelines are preliminary for the two following years.

Proposals and decisions can, of course, only be based on the information available at the time of proposal and decision. The main factors for analyses and discussions underlying proposed guidelines and decisions are the future borrowing requirements and interest rate levels. However, conditions may change. If conditions change to such an extent that the previous analyses and decisions are no longer accurate, the Government may at any time during the year change the guidelines according to a proposal from the Debt Office or on its own initiative.

One example of this is the Government's decision of 13 March 2009 to temporarily rescind the benchmark for the nominal krona debt. After the Government made a decision on the maturity benchmark in November, the borrowing requirement forecasts were changed and there was a sharp and fast rise in interest rates. An opportunity arose to issue a 30-year bond on favourable terms in the Swedish market. At the same time, the risk could be decreased, which was desirable in the light of the increased borrowing requirement. The prerequisites which underlay the decision for 2009 were thus not longer appropriate in important respects.

However, there would not be scope for a long bond within the maturity benchmark. We then proposed that the Government should until further notice rescind the current benchmark, which the Government also decided to do.

Since the possibility of issuing a long bond partly depended on current market prerequisites, there was a need for the change in the maturity benchmark to be dealt with quickly. This also took place within less than a month, which was sufficient. This example shows that the current control system can also deal with rapid changes in prerequisites and provide scope to make use of opportunities that open up.

To sum up, decisions are normally made once a year. If conditions change, new decisions may be taken between ordinary occasions for decisions. In certain cases, conditions and possibilities can need to be dealt with quickly. The events of the past year show that this is possible.

However, it cannot be excluded that extraordinary events may occur which require exceptionally fast decisions and fast implementation. In some circumstances, such rapid decisions may be needed that the ordinary procedure for dealing with proposals and decisions is not sufficiently fast. It can thus not be excluded that the Debt Office, in the endeavour to keep expected costs to a minimum while taking risk into account, must be able to deviate from the current guidelines. One example of when a fast decision was required is when the Debt Office decided to issue extra T-bills to safeguard the functioning of the market for government securities. This was outside the framework of the guidelines, although the need for fast treatment may also arise within the guidelines.

The Debt Office considers that the control system works satisfactorily. Designing the control system to automatically cope with every conceivable event – such as the turbulence in the recent period – is neither possible nor suitable. Within the current system, the Government can at any time counter changed conditions by changing the guidelines at the same time as the division of responsibility between the Government and the Debt Office is maintained. Provided that these proposals continue to be dealt with in a flexible and fast way, this should enable smooth processing. In the case of extraordinary events, however, swifter decisions may be needed than are possible within the ordinary decision-making process.

4.5 Management of funds

The Debt Office has not made any judicial assessment of the reasonability of moving over the rules on administration of funds from the Ordinance (2007:1447) containing Instructions for the Debt Office (section 6) to the guidelines.

Annex – Clarification of how the Debt Office measures the central government debt

The Debt Office measures central government debt with two different measures that perform different functions. The amount of debt is measured with "The Swedish central government debt" and the composition of the debt by "Aggregate central government cash flows". We present the measures here in more detail.

The reason for having more measures depends on how well these are applicable to different situations. "The Swedish central government debt" (DSS) is part of Sweden's official statistics and measures the amount of debt. "Aggregate central government cash flows" (SSK) measures the risk of the debt and is used to control the shares of debt.

The difference is primarily in the choice of payment flows and instruments included (see table 1). The DSS measures show the state's future obligations in the terms of aggregated nominal final amounts for the Debt Office's outstanding loan instruments. The SSK measure, however, shows the state's future undertakings in terms of cash flows, i.e. current payments of coupons and nominal final amounts. When calculating SSK, certain current in-payments are also included.

Table 1. THE DEBT OFFICE'S MEASURE OF THE AMOUNT OF CENTRAL GOVERNMENT DEBT

	Gross	Net
Nominal final amount (NS)	DSS	
Cash flows (CF)		SSK

Note: Net means that assets are included that reduce the amount of debt. However, it should be pointed out that net calculations may be carried out with different extensive selections of assets, and the net amount thus only gives a rough indication of how the calculation has been made.

The Swedish Central Government Debt – DSS

On the fifth working day of every month, the Debt Office publishes information about the development of central government debt in the report "The Swedish Central Government Debt". These calculations are based on a definition of the debt that is sometimes referred to as "Unconsolidated central government debt". The debt includes all loan instruments raised by the Debt Office on behalf of the state. When aggregating the debt, only the nominal amounts of debt are included, coupons are omitted. Since 2003, derivative instruments are also included in the calculation of "The Swedish central government debt". Note also that all

amounts are taken up without being discounted (i.e. the nominal final values are the same as nominal final amounts).

Loans in foreign currency (in general) have a fixed nominal final amount denominated in dollars or euro. Since the central government debt is measured in kronor, these final amounts are converted taking into consideration the exchange rate. The principle is to use the exchange rate that applied at the time the debt was calculated, e.g. 31 December. This means that when the value changes in relation to the currencies included in the debt, the amount of central government debt also changes. Viewed on the basis of the wish to obtain a correct final value of the instrument, this can be interpreted as the exchange rate when the loan matures being assumed to be same as on valuation date.

Inflation-linked bonds are characterised as having a fixed final value. This means that the Debt Office has undertaken on maturity of the loan to pay out an amount adjusted upwards by the registered rate of inflation (measured by the consumer price index) in the form of "inflation compensation". Since the central government debt is measured in nominal terms, the final amount of the inflation-linked loan is adjusted upwards by inflation compensation which has accumulated up until the valuation date. Viewed from the perspective of the wish to obtain a correct final value, this means that the rate of inflation from the valuation date to maturity of the loan is assumed to be zero.

Aggregate central government cash flows – SSK

The Debt Office also produces alternative measures of the amount of central government debt. One such measure is the "Aggregate central government cash flows". This measure is primarily intended to be able to measure and control the shares of central government debt. The measure is thus published in connection with reporting of the Debt Office's proposed guidelines for central government debt management, and the basis for evaluation of central

government debt management. The measure is monitored continuously in operational management.

The two measures SSK and DSS have many similarities. They both contain all loan instruments and nominal final amounts are included for these. Foreign currency loans are converted by exchange rates and inflation-linked loans are recalculated with accumulated inflation.⁷ The principal difference between the measures consists of:

1. SSK contains a selection of central government assets, which are within the framework of the Debt Office's debt management.
2. SSK includes continuous cash flows, for example coupon payments.
3. SSK adds expected inflation compensation to the accumulated inflation compensation.

The fact that debt management is controlled through the SSK measure means, for example, that the share of nominal krona debt is reduced if the Debt Office has cash assets in kronor. Cash assets in foreign currency reduce the foreign currency share. The SSK measure includes assets, inter alia, because there would otherwise arise large and misleading fluctuations in the debt shares. The Debt Office could then be obliged to carry out transactions to correct changes which are of no significance for the costs and risk of central government debt or, which would be just as bad, not be able to make transactions that reduce costs and risks.

Cash assets normally arise due to short-term surpluses in our daily management of central government cash flows, i.e. in our liquidity management. Longer cash assets can, however, arise. For example, the foreign currency assets received by the Debt Office in connection with the sale of Vin & Sprit were deposited for use for future maturities and interest payments in foreign currency. The foreign currency assets were then deducted against the foreign currency debt (in practice, these then functioned as a kind of early amortisation of foreign currency debt, which meant that the foreign currency share decreased before the outstanding loan was repaid). Furthermore, the increased volume of T-bills during the autumn of 2008 was corresponded to by assets in the form of mortgage bonds. Since the SSK measure also included assets, the debt shares were not affected. Since the Debt Office moreover invested the additional assets so that they matured at the same time as the additional T-bills, the average interest rate refixing period of the central government debt was not affected either.

⁷ Both measures are calculated without discounting, i.e., the discount factor is set at zero.

These examples show that by including cash assets, central government debt management could take place with unchanged loan planning, which served its purpose. For example, the Debt Office did not need to adjust the maturity of the regular nominal kronor debt, which would otherwise have become too short given the extensive borrowing in T-bills. When the extra T-bills matured, the debt remained at the same benchmarks as before without any further transactions needing to be carried out.

An additional example of assets that continue over a longer period is the Debt Office's on-lending to the Riksbank. We raise loans the funds from which are lent to the Riksbank. The Riksbank in turn lends out the money. In the SSK measure, the net of our borrowing and our lending to the Riksbank is calculated, which thus does not affect the shares and risk of the debt.

As a result of the SSK measure, in addition to the nominal final amount, also including coupon payments, instruments with long maturities become considerably larger compared with the DSS measure. Since the maturities differ between types of debt, the consequence of this is that the debt shares change. This has the greatest effect on the inflation-linked krona debt, and least effect on the foreign currency debt. The introduction of a 30-year government bond in March 2009 entailed for the same reason that the share of nominal krona debt increased.⁸

The characteristics of aggregating expected inflation compensation also make the size of the central government debt according to the SSK measure larger compared with the DSS measure. The reported share of inflation-linked debt increases slightly, however. In connection with the introduction of the SSK measures as a control measure, this was offset by increasing the benchmark for the inflation-linked debt by five percentage points. Thus, the rearrangement of the control measure had no practical effect on issue plans.

⁸ Beside the debt shares changing, the maturity of the debt is also changed. This is due to the maturity measure average interest rate refixing period (GRT) being a weighted average, where weighting is made with SSK shares.



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