



Central Government Debt Management

PROPOSED GUIDELINES, 2008–2010

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Summary

In this memorandum, the Swedish National Debt Office presents its overall guidelines for the management of central government debt in accordance with the provisions in the Directives for the National Debt Office (1996:311). This proposal is based on section 5 of the Act on Central Government Borrowing and Debt Management (1988:1387). According to this Act, the central government debt shall be managed in such a way as to minimise the long-term cost while taking into account risks inherent in such management. In addition, management shall take place within the constraints imposed by monetary policy.

This year's proposed guidelines revolve in many aspects around issues concerning central government debt management in a surplus environment. The background is that the central government debt is expected to fall sharply in the next few years, which will confront central government debt management with challenges of both a principled and practical nature. Furthermore, the Government instructed the Debt Office last year to review the assessments on which the present share targets are based for foreign currency and inflation-linked debt. The Government emphasised that this task was particularly important in the light of the prospects for central government finances. The Government also gave the task of making an in-depth analysis of the control of the benchmark for maturity in the debt, inter alia, in conditions where the comprehensive maturity is expected to stabilise, and of cost aspects of the choice of maturity in the inflation-linked debt.

Central government debt management in a surplus environment

In order to provide a framework for the discussion on central government debt management in a surplus environment, we are initiating this year's proposed guidelines by a calculation example, which provides

an indication of the development of central government debt to 2015. In our scenarios, which are based on an average general government net lending in the interval 0.5–1.5 per cent of GDP during the period 2007–2015, the central government debt decreases in nominal terms to between SEK 1 100 and 700 billion by 2015. It should be pointed out that this is not a forecast but should only be regarded as a calculation example.

The question that now arises is whether a reduction of the debt of this size will mean that the scope for risk-taking will increase in exchange for lower expected costs. The reasonable answer is yes.

This answer leads to the attendant question of what alternatives are available to reduce the expected costs. One alternative is to shorten the average maturity. It is possible to reduce costs in this way as long as the yield curve has a positive slope. The limited borrowing requirement makes it also possible in practice to shorten the maturity without a deterioration of the liquidity of the bond market. This is possible since our scope for using swaps has increased when the issue volumes of bonds have decreased.

At the same time, interest costs become more uncertain since the debt must be renewed more frequently which also increases the refinancing risk. The current small difference between short- and long-term interest rates means, however, that the trade-off between expected cost and risk that previously existed is not as clear at present. Our assessment is therefore that there are not at present sufficient reasons to change the benchmark for the maturity of central government debt.

Another alternative is to change the composition of the debt, i.e. the share targets. However, our

assessments indicate that one cannot expect that the debt distribution will lead to a significant change in expected costs. Instead, the level of risk will be lower through the state distributing the debt to more types of debt, i.e. a diversification effect. Therefore, redistribution between types of debt probably does not produce any significant change in the expected cost.

However, this reasoning is based on the foreign currency debt having in principle the same composition as to date. One available alternative is to change the composition of the foreign currency debt. The present composition is primarily based on our aiming at a low total currency risk. Since the state should now be able to consider accepting greater risks, we consider that there are reasons to change the starting point for the analysis of the characteristics of the foreign currency debt. We therefore intend to review the composition of the foreign currency debt on the basis of aiming at lower expected costs.

The further question that a reduced debt brings up is the practical consequences that arise. We note here that it is important to ensure that the Swedish government securities market remains sufficiently attractive to avoid increasing costs and risks – in terms of our ability to increase borrowing quickly and efficiently if developments take another direction. Among other things, the infrastructure that has been built up over a long period of time with liquid markets, good investor confidence, dealers, etc. should be maintained. Examples of measures that have already been undertaken or can be undertaken are to concentrate borrowing on fewer maturities, hold fewer auctions, and concentrate borrowing on nominal bonds.

Control of the comprehensive maturity

The comprehensive maturity will gradually shorten in the coming years. The reason for this is that the maturity of the inflation-linked debt will gradually decrease as the outstanding inflation-linked bonds approach maturity, at the same time as we do not intend to introduce any new inflation-linked loan with a long maturity in the next few years. We expect the maturity to stabilise in a situation where the lowest inflation-linked loan has become sufficiently short to need replacing by a new longer loan. At present, there is no reason to decide whether the longest inflation-linked loan should,

for instance, be fifteen years or twenty/twenty-five years. Consequently, it is at present difficult to establish the future comprehensive maturity.

Our assessment is that the maturity of the inflation-linked debt and thus of the whole debt will gradually shorten over the next five years. Subsequently, it will be possible to make decisions on a more long-term and stable maturity. It is not either appropriate to exactly establish the path for the gradually shorter maturity since it will depend on, for instance, the exchanges that can be appropriate to carry out to achieve a suitable maturity structure and size of the inflation-linked debt.

Proposed guidelines for the composition of the debt

We are not proposing any changes in the current guidelines, i.e. we are proposing share targets for the foreign currency debt of 15 per cent, the inflation-linked debt 25 per cent and the nominal krona debt 60 per cent¹. A control interval of ± 2 percentage points around the share target of the foreign currency debt is proposed, in accordance with the principles decided upon by the Government last year. However, we propose that the foreign currency debt shall also in 2008 be controlled by an amortisation mandate; see below. The Debt Office shall furthermore specify an operational deviation interval around the share target of the inflation-linked debt.

However, we point out that the share of the inflation-linked debt will increase to around 30 per cent in 2008. According to our forecasts, the share will decrease to around 27 per cent at the end of 2008 in conjunction with a loan maturing. During the following years, the share will increase again to just over 30 per cent. The reason is the reduced total debt, which means that the share of inflation-linked debt will automatically increase. There are not either any tools for steering the shares towards their benchmark at reasonable costs. Furthermore, we consider some presence in the primary market important for the infla-

¹ Calculation of the shares is based on the central government debt's Aggregate Cash Flows (CCF). See the Proposed Guidelines for 2006 (Dnr 2005/1792) for a more detailed description.

tion-linked market to continue to function well and also in the future constitute a possible source of funding. All in all, the development means that there is need for in-depth analyses of the control of the share of inflation-linked debt. The Debt Office will return to this matter in next year's proposed guidelines.

The amortisation rate of the currency debt during 2008 is proposed to be SEK 40 billion with a possible deviation interval of SEK ± 15 billion. It should be possible to introduce the new share-based control system for foreign currency debt around the turn of the year 2008/2009, when the share is expected to be in the region of 15 per cent. However, it is difficult at the present time to determine exactly when this changeover should take place. We therefore propose that we submit a proposal to change control system to the Government at a later date when it is considered appropriate.

Proposed guideline for the maturity of the debt

We propose that the benchmark for the comprehen-

sive maturity be 4.8 years at the end of 2008 and that the direction for the corresponding dates in 2009 and 2010 shall be 4.6 and 4.5 years respectively².

This means in principle no change compared with last year's guidelines. However, the values for 2008 and 2009 have been adjusted upwards by 0.2 years. This is due to the actual development of the maturity of the inflation-linked debt deviating from that estimated, since exchanges and issues have deviated slightly from the assumptions on which the calculations were based last year.

Other proposals

We propose no change in the current guidelines for position-taking, market and debt support and the retail market borrowing. However, we propose that the target for the retail market borrowing be specified in more detail to state that this borrowing shall achieve the greatest possible saving in relation to the corresponding borrowing through government bonds or T-bills.

² The maturity is measured as an average interest rate refixing period. See the Proposed Guidelines for 2006 (Dnr 2005/1792) for a more detailed description.

1 Central government debt management in a surplus environment

How is central government debt management affected by a surplus environment? In this section we discuss at an overarching level the consequences in principle and in practice of central government debt management of a decreasing central government debt.

1.1 The scenario for the development of the central government debt

To tie up continued discussions around something concrete, we start by sketching three scenarios for the development of central government debt. The period we are looking at extends until 2015. This analysis is based on the surplus target for the public sector, which is that net lending should amount to 1 per cent of GDP over a business cycle. Since we are interested in the central government debt, we extract central government net lending from the public sector.

It is important to underline that these scenarios should not in any way be regarded as forecasts. They will not serve as the basis for any operational loan plans in the Debt Office's debt management. The forecasts underlying the loan plans are made in a completely different way and only extend two years into the future.

The scenarios shall be regarded as calculation examples which can illustrate the challenges that ensue from a decreased central government debt. The examples are not based on any probabilities, and the results follow mechanically from a number of simple assumptions. The purpose is primarily to see how central government debt will develop at different levels of net lending over a somewhat longer period. We have removed any upswings and downturns in the economy from and including 2009 by assuming a kind of equilibrium. It is therefore not meaningful to analyse the result for particular years during the period 2009 to 2015 with the method we have chosen.

1.1.1 Methods and assumptions

The Debt Office does not have its own macroeconomic simulation model and can thus not make wholly consistent forward projections for the economy as a whole. We have not either considered it necessary to produce a model of this kind for this purpose. Instead, we have adopted a simplified model, where we have obtained inspiration from an approach used in the more recent Long-term Survey of the Swedish Economy (LS).³

In the calculation example, we use our forecasts of the borrowing requirement for 2007 and 2008. After 2008 – i.e. where we do not have any forecasts of our own – we assume that the general government net lending amounts to the values which result in an assumed average net lending over the whole period 2007–2015 and calculate the change in debt from that.

The borrowing requirement will be a function of GDP growth and the general government net lending we have assumed. By assuming different levels of net lending, it is possible to calculate alternative developments for the borrowing requirement and central government debt.

Assumptions and simplifications

- We use our current borrowing requirement forecast for 2007 and 2008.
- Inflation is expected to be 2 per cent per year.

³ The purpose of the Long-term Survey of the Swedish Economy is to provide a basis for economic policy and to provide an overall picture of the long-term macroeconomic development. LS's calculations do not describe a cyclical development but rather an even development until 2020. The results presented are based on the economy being in long-term equilibrium. Furthermore, it is assumed that the surplus target for general government net lending will be complied with by 2015. The most recent LS was moreover focused on describing the effects on public finances of demographic changes. The demographic strains on the state are, however, expected to arise largely after our calculation period, i.e. after 2015.

- These calculations are based on National Institute of Economic Research's (NIER) forecast of GDP development. This means that GDP moves towards a long-term growth of 2.0 per cent per year. The average rate of growth for the period 2007–2015 is 2.4 per cent (in fixed prices).
- We use NIER's forecast of net lending in the pension system, although we adjust for the premium pension scheme no longer being included in the public sector.
- In the basic scenario, the target for general government net lending is fulfilled during the period 2007–2015. The time period 2007–2015 is thus assumed to correspond to a business cycle.
- Local government net lending is expected to be zero in the long term. We consider that it is politically difficult to justify positive net lending in the local government sector over a longer period of time. The local government sector is therefore assumed to comply with requirement for a balanced budget but not more. This assumption is also supported by data. For the period 1993–2005, the net lending of local government was –0.1 per cent of GDP on average.
- For 2009–2015, we assume that the borrowing requirement (and thus the change in central government net debt) corresponds to central government net lending. However, an exception is the SEK 50 billion in sales income included for both 2009 and 2010.
- From 2009 inclusive, we calculate that central government net lending as a residual. In the base scenario, we set it at the value which means that the goal for the whole public sector net lending, of one per cent on average, is complied with for the time period.

1.1.2 Calculation examples

The basic scenario

The surplus target for the public sector is met for the period 2007–2015. Now that the premium pension system is no longer part of the public sector, the surplus target means from and including this year that net lending on average over a business cycle, shall amount to 1 per cent of GDP. With the forecasts for 2007 and 2008 for net lending, we obtain general government net lending from 2009 and onwards in accordance with the table below.

Table 1. Basic scenario, general government net lending one per cent on average 2007–2015 (per cent of GDP)

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Local government	0.40	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Central government	2.10	2.30	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Old age pension system	0.81	0.63	0.61	0.50	0.31	0.15	0.04	0.00	–0.07
Total, general government net lending	3.31	3.33	0.73	0.62	0.43	0.27	0.16	0.12	0.05

As has been stated above, we assume that the central government borrowing requirement corresponds to central government net lending with one exception since we assume SEK 50 billion of sales income

for 2009 and 2010. Based on the general government net lending in the above table, we can calculate the borrowing requirement in the base scenario, as shown in the table below.

Table 2. Basic scenario, borrowing requirement, 2007–2015 (SEK billion)

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Excluding sales	–88	–68	–4	–4	–4	–4	–5	–5	–5
Sales	–50	–50	–50	–50					
Total	–138	–118	–54	–54	–4	–4	–5	–5	–5

Finally, we can calculate the change in central government debt. Given our assumptions, average net lending of 1 per cent of GDP in the general government sector means that the central government debt will decrease to just over SEK 880 billion in 2015. In

real terms, this corresponds to a debt of just under SEK 740 billion. Expressed in relation to GDP, central government debt will be around 20 per cent of GDP, compared with just under 38 per cent today.

Table 3. Basic scenario, amount of central government debt, 2007–2015

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Nominal central government debt, SEK billion	1 132	1 014	960	906	902	897	893	888	883
Central government debt, per cent of GDP	38	32	29	26	25	24	23	21	20
Real central government debt, SEK billion	1 110	975	905	837	817	797	777	758	739

Alternative scenarios

By using the level of general government net lending, we can calculate alternative developments of central government debt. The table below summarises the effect of two alternative assumptions on net financial lending on the size of central government debt up to 2015. As well as the basic alternative – i.e. 1.0 per cent net lending – one scenario is shown with lower net lending and one with higher.

Table 4. Size of central government debt in 2015 at different levels of general government net lending

General government net lending, 2007–2015	0.5 %	1.0 %	1.5 %
Central government net lending 2009–2015, per cent	–0,53	0,12	0,76
Nominal central government debt, 2015, SEK billion	1 055	883	711
Central government debt % of GDP 2015 (nominal)	24	20	17
Real central government debt, 2015, SEK billion	883	739	595

In a scenario with general government net lending of 0.5 per cent of GDP, central government debt will increase during the years 2011–2015. In this scenario, central government net lending is negative during the period 2009–2015. Due to the large surpluses, we calculate for 2007 and 2008, central government debt will still be less in 2015 than it is today.

If the more optimistic assumption is made that average net lending amounts to 1.5 per cent over the time period, the central government debt decreases to just over SEK 700 billion by 2015 (just under SEK 600 billion in real terms). This scenario requires that central government net lending amounts to an average of 0.76 per cent between 2009 and 2015. By way of comparison, central government net lending was almost zero per cent on average during the period 1998–2005, adjusted for one-off transfers made from the pension system in 1999 and 2001.

1.1.3 Conclusion

Our calculation examples provide an idea of the possible approximate size of the change in central government debt. In our basic scenario, where the surplus target is just achieved, the central government debt decreases from the present just over SEK 1,173 billion (31 August 2007) to around SEK 880 billion

in 2015. If net lending is 0.5 percentage point higher, the reduction in central government debt is around SEK 170 billion greater than in the basic scenario. In all three scenarios, we see a central government debt of not inconsiderable size in the future as well. In the following sections we discuss the consequences of principle as well as practical natures of a development according to these paths.

1.2 Central government finances and the state's view of the risks in central government debt management

It is necessary to discuss what significance the prospects of central government finances should have for the decision on the composition and maturity of the central government debt. This section is therefore intended to shed light on how the ongoing improvement of central government finances should affect central government debt management.

Risk is a key concept in guidelines for central government debt management. In the guideline decisions of past years, the Government has, in a number of steps, made the discussion around the definition of risk that took place when the control system was adopted by the Riksdag in 1998 more concrete. Among other things, the Government has stated that, in considerations of the composition and the maturity of the debt, risk should be measured as the variation of the average running yield. However, the Government has also stated that the relevant risks include more than those associated with the direct costs of the central government debt. Deliberations shall accordingly include how central government debt management can affect central government finances as a whole. For instance, the Government has noted that a debt portfolio which may be assumed to be associated with high costs when central government finances are weak is more risky than a portfolio where high costs coincide with strong central government finances. This approach can be linked with the concept of “deficit smoothing”. The Government has also stated that the central government debt should be viewed in an overall balance sheet perspective, in such a way that the characteristics of the debt should be considered taking into account the size of and composition of the state's assets (in a broad sense). This latter is usually

described as an asset liability management (ALM) approach.

It is difficult to translate these, to a certain extent contradictory concepts, into a basis for decision expressed in figures. The correlations that govern expected costs and risks of this nature are complex and difficult to assess. The same applies to the actual choice of debt portfolio. This is about evaluating the risks associated with the central government debt which the state is prepared to take in exchange for lower expected expenses. This balance to be struck is moreover affected by factors controlled by assessments – in the first place the state's view of risk – which are less able to be quantified in a simple and clear way.

The guideline decisions are therefore not made in accordance with the theoretical ideal inspired by formal portfolio models. Ultimately, it is the qualitative assessments of both risks and risk preferences that form the basis for the decisions. There is none the less a value in basing the analysis of central government debt management on the basic concepts of cost and risk. Not least this provides better opportunities for formulating relevant questions. Even in cases where no clear answer can be given to these questions, the discussions and reasoning they give rise to provide a basis for decision which moves central government debt management closer to the goal of keeping costs at a minimum while taking risk into account. One such question is what importance the prospects of central government finances should have for decisions on the composition and maturity of central government debt.

1.2.1 The connection between the size of the debt and the level of risk

What connection is there between the size of the debt and the state's choice of risk level in central government debt management? The reasoning around this connection will be clearest if one starts with the case when central government finances are weak and central government debt is at a high level, for instance, due to a deep and long-lasting economic downturn. In this situation, central government finances are sensitive to additional strains. It will become even more serious if there is concern that the state, due, for instance, to large short-term loans, will not be able

to both cover the coming borrowing requirement and re-finance maturing loans. If the central government debt is perceived as a risk factor, it may be necessary to reduce the risks deriving from the central government debt, in the first place by extending the maturity of the debt in order to reduce the interest rate refixing and refinancing risks. To the extent that a step of this kind dampens concern for the sustainability of central government finances, it can be favourable from a cost point of view by interest rates going down compared with how they would have developed had no steps been taken. However, it is normally appropriate for the end in view to intervene before the central government debt as such has become a source of risk even if this may initially mean higher expected expenses.

The above scenario is recognisable from the deep crisis in the economy and central government finances in the first half of the 1990s. This was expressed, inter alia, in the extension of the maturity of central government debt in a situation where long-term borrowing was markedly more expensive than short term. Since central government debt policy – and, even more important budget policy – must always steer away from a situation where it can be feared that the state will not be able to meet its commitments, the restriction “while taking into account risk” is strong in such a very strained position. What may be perceived as more expensive lending can then be necessary to reduce the level of risk.

The prospects for central government finances are now quite different. Central government debt is decreasing in absolute terms as well as in relation to GDP. Underlying this reduction are years of favourable economic development, which means that tax bases will grow and expenditure decrease in certain areas. To some extent, this reduction is also due to the state selling assets in the form of shares in state-owned companies. This does not affect the state's wealth position in a balance-sheet perspective – shares are exchanged for liquid funds which are used to repay debts. However, the risks in the state's balance sheet none the less decrease when the state reduces its share portfolio and its debt.

The question is how a development of this kind affects the view on risk level in central government

debt management. Is there symmetry to the extent that stronger central government finances increase the scope for risk-taking in a corresponding way that weak central government finances shrink it? The reasonable answer is yes, an assessment which has also been made in previous guidelines. Two types of effects are important.

First, a low debt means that the state in the event of an unexpected increase in the borrowing requirement – regardless of the cause – has scope to let the debt grow for a period, without being bound by economic or political (for example, EU-related) restrictions. In this way, a small debt provides the state with more time to assess whether the change underlying the increased borrowing requirement is temporary or permanent. In the former case, the debt can absorb the disturbance without the state having to change either other expenditure and income or the direction of central government debt management. In the case of a permanent deterioration, there is time to make the necessary changes in expenditure and tax rates in a well-considered way. These considerations should guide budget policy.

The second effect is directly related to central government debt management. A small debt makes the central government interest costs fall (everything else being equal), absolutely and normally also in proportion to the state's total expenditure. The impact on the state budget and central government finances as a whole of an interest increase on new and maturing loans will thus be less. In this way, the scope will increase for taking risk per borrowed krona within the framework of a given total risk limitation. In addition, this risk limitation will not need to be set so narrowly if central government finances are clearly robust. The reasoning in the previous paragraph also applies, of course, to the costs of central government debt. The expected interest expense of SEK 40 billion per year and a debt ratio up towards 25 per cent of GDP give a wholly different decision-making situation than when costs exceeded SEK 100 billion and the debt ratio was at 80 per cent.

In a situation where central government finances appear to be unshakeably secure and central government debt is very low, there are no longer reasons *in*

principle for taking account of risks in central government debt management. The contribution of central government debt to budget uncertainty will then be so small that variations in the average running yield as well as reasoning on deficit smoothing and ALM lack importance and strict cost minimisation will be the goal.

The conclusion that the state can take greater risks in central government debt management, the less the debt is, thus appears to be clear. However, this does not provide any guidance as to how large risks should be taken in a given situation, since the reasoning only concerns a comparison between two situations. The starting point in previous guideline decisions has been that the risk level that characterised the current central government debt portfolio was well considered. An improvement of the state of central government finances has therefore justified a reduction in the expected costs at the price of increased financial risk-taking. This has primarily taken place by a reduction in the benchmark for the maturity of the debt.

The question is whether the reduction of the debt expected in the next few years will justify further rearrangements of central government debt with a view to reducing the expected costs. In principle, the answer should be yes.

One prerequisite is that the improvement in central government finances is expected to be sustainable. The long-term prospects for central government finances should also be part of the picture. One aspect that can then be important to take into account is the strains on central government finances that are expected to occur when the age structure of the population changes markedly. In terms of budget policy, this is undoubtedly an important question already today, which should affect the obligations the state undertakes and decisions on the size of central government debt. In addition, there is the uncertainty that always exists about the development of the economy and future political decisions, at least in the longer term.

However, the longer the time perspective, the more doubtful it will be what significance these factors will have for current decisions on guidelines for central government debt management. To the extent that the strains are beyond the time horizon when most loans

issued in the next few years will have matured, they have little bearing on how the central government debt should be managed in the medium-long term perspective. However, it should be noted that the central government debt policy horizon extends beyond the maturity date of the longest loans. The next section contains a discussion on the prerequisites for bond borrowing that are associated with the market's infrastructure and institutional structure.

For the current discussion on the consequences of a reduced debt, the very long-term perspective is accordingly less relevant. Even if it is conceivable that the situation is different in 15 or 20 years, a reduced debt will mean in the next few years that there is reason for the state during the period of time covered by this year's guideline decision to increase the level of risk if the expected costs can be reduced in this way.

The Debt Office does not consider, however, that a development according to the scenarios outlined above would take central government finances into such a secure zone that risks can be excluded from the reasoning. This would assume a debt considerably below the levels shown in the calculations in section 1.1. To this extent, the conclusion is qualitative, i.e. greater risk is acceptable but the lowest possible cost at the price of extremely large risks should not come into question.

1.2.2 Practical aspects of a decreasing debt

The bond market of key importance

The previous section contained a discussion of the significance of the prospects for central government finances on the state's view of how the central government debt should be managed from, in the first place, a principled perspective. The conclusion is that, there is scope with a relatively small debt for trying to reduce the expected costs by taking greater financial risks. In this section, we discuss certain practical aspects of the reduction of central government debt. The principled reasoning must take place in the light of the fact that there are not in practice the same deep markets for borrowing in all maturities. The number of lenders and potential loan volumes on, for instance, the T-bill market is limited compared with the nominal bond market. Nominal bonds provide access to a large and international investor base. If the

central government debt is large or if the borrowing requirement grows quickly, a broad sphere of lenders is needed to secure borrowing. It is only the bond market which offers the depth in the market that the state needs for limited risk-taking. A strong dependence on a limited number of Swedish cash and money market investors would create far too great risks even in the light of the decreasing central government debt of the next few years.

An important aspect is also how the Swedish fixed-income markets would be affected by the size of the supply of government securities. Since the beginning of the 1990s, central government debt has been more than sufficient to meet the demand for government securities and provide a basis for an active secondary market over a broad spectrum of maturities. Both the debt as such and the activity that follows from the issues have provided a basis for good liquidity, which reduces the lenders' risks and reduces the costs for the borrower. The Debt Office has also broadened the range of debt instruments, for instance, introduced inflation-linked bonds (1994). One explicit aim was to increase diversification of borrowing, which was of great importance for the state of central government finances then. By borrowing in several types of debt and in several maturities, we reach a broader investor base, which provides cheaper loans and reduces the risk for the state being dependent on loan costs and players in one market segment. The latter is of great importance in times when central government finances are under strain and the borrowing requirement is accordingly great.

We now see a period in front of us with the converse situation. When central government debt shrinks, the importance of reaching out to several markets is reduced. The value of spreading risks also decreases. Ultimately, it may therefore be difficult, and probably not appropriate for the purpose, to continue to issue a lot of different loan instruments. If the supply in a particular loan instrument becomes too little, liquidity deteriorates which may mean that the loan costs (per borrowed krona) will increase. An excessively broad offering of loan instruments can accordingly come into conflict with the endeavour to keep costs low since liquidity premiums can increase if the debt is diluted to too many loans.

Unlike previous years, when the Debt Office primarily sought possibilities for broadening borrowing (to reduce the risks in this way), we are now confronted by the task of trying to ensure that the benefits which liquid and broad central government debt markets can give are retained even in an environment with markedly less debt. Central government debt management can in the long term be confronted by difficult balances to be struck regarding the priority to be given to the market segments and instruments that we use.

This can be illustrated by an example. The state obtains the overwhelming part of its funding in the nominal krona market. The nominal bond market is internationalised at the same time as the state has comparative advantages as the most creditworthy borrower in Swedish kronor. This gives the state good opportunities for borrowing large volumes on the best conceivable terms. From this, it follows that we should issue bonds in the maturities that are best adapted to create an attractive market both for the national and international investor community. It is probable then that the two-, five- and ten-year maturities are the most important. These maturities are those that are traded most frequently internationally and those that are primarily used in portfolio target allocations and position-taking via purchases and sales of fixed-income securities. The outstanding volumes in the most traded maturities should therefore be so large that they offer good liquidity. It is not possible to exactly establish how large the volumes should be although a lower limit is probably in the range of SEK 40–50 billion.

If, for instance, the Debt Office issues a ten-year bond every 18th month and moreover a longer bond (fifteen or twenty-year on first issue) every fifth year, the state should have eight or nine outstanding benchmark loans at our point in time. If stocks in all maturities should be SEK 40–50 billion, this would give a bond stock corresponding to SEK 400–450 billion. This is practically the amount that is now outstanding. Returning to our calculation example in section 1.1, a bond portfolio of this size accordingly leaves relatively little scope for other instruments.

However, the Debt Office considers that central government debt has not yet reached and will not reach in

the coming years a situation where we need to change our basic loan strategy or our offering of loan instruments. If central government debt develops in the next few years according to the paths described in section 1.1, the Debt Office can adapt the debt and our action within the present main lines without our risking deviating from the cost minimisation target. Of course, the volumes and also the maturities of the respective type of debt will probably decrease, but we consider that this can take place without impeding liquidity in such a way as to lead to increase in loan costs.

It is also part of the picture that it is far from certain that the central government debt will reach such levels as to make more comprehensive changes necessary. Instead of reaching levels sketched in the calculation example above, the debt may turn round at a higher level and then start to grow again. In this situation, it will therefore be of value for the state that the infrastructure, in the form of markets for and investors in government securities, which has been built up over the years with a large central government debt, is available. Experience shows that it requires both time and money (in the form of more expensive borrowing) to build up an efficient market and a good infrastructure.

Use of derivatives

It is also important to note that the effects of the fixed-income market will primarily depend on how the Debt Office finances the central government debt. The costs and risks, on the other side, will depend mainly on the final obligations which the state has and these can differ considerably from how the debt is funded through the Debt Office using derivative instruments. The guidelines refer to the characteristics of the debt, including derivatives. The possibilities of changing the characteristics of the debt with the aid of derivatives is also affected by the size of the debt, since the state to date has been such a large player that we have not been able to change more than a small part of the debt via derivatives. This is clearest in the case of interest swaps in kronor where the Debt Office sets up indicative annual limits for the size of transactions made. For a given depth in the derivative market, the scope increases to change the characteristics of the debt the less central government debt is. To analyse how a reduced central government debt could affect the guidelines, the availability of derivative instruments must also be taken into account.

1.2.3 How can costs be reduced?

The maturity of the debt

The qualitative conclusion in section 1.2.1 (*The connection between the amount of debt and the level of risk*) and the discussion in section 1.2.2 (*Practical aspects of a decreasing debt*) leads on to the question of the way in which the characteristics of the debt should and can be changed to reduce the expected costs. The answer in the corresponding situation in previous guidelines has been to shorten the average maturity of the debt. Underlying this recommendation has been the assessment that long-term interest rates over long periods are higher than short-term rates, i.e. the average yield curve has a positive slope. The short-term interest rates have varied more and the impact is greater if a large part of the debt has a short maturity and has to be refinanced at current market rates, although the net effect will be lower costs as long as the assumption on the yield curve remains.

According to the pattern from earlier years, the recommendation should thus be that if the state is willing to take greater risks with a view to reducing the expected cost, then the average maturity of central government debt should be reduced. The present relationships between interest rates on government securities with different maturities make the recommendation less self-evident than it was previously. The differences between interest rates on short and long bonds are almost negligible. While interest on T-bills is lower than on bonds, there are expectations that the Riksbank will increase the key policy rate in the near future. If this is the case, it is probable that the yield curve will become substantially horizontal. The clear trade-off between expected cost and the interest rate refixing risk that is found with a markedly upward-sloping yield curve is thus no longer as clear.

It is important to underline a difference compared with earlier discussions on maturity. One restriction has then been that the maturity of the nominal debt must not be so short that it is no longer possible to maintain an attractive bond market. Given that the borrowing requirement is now small, it is possible to control maturity mainly by derivatives (interest swaps). This means that it is now possible, for instance, to shorten the benchmark for maturity with regard to the

state's interest-rate exposure without shortening funding or reducing bond borrowing.

The Debt Office considers that it is inappropriate to let the current interest rate situation govern the decision in the Government's guidelines on the benchmark for the maturity of central government debt. A more long-term approach must provide guidance here. It may prove that yield relations will be different in the future. On the other hand, there are not either strong reasons to hasten a shortening of the maturity taking into consideration this would provide lower expected costs. Even if the old pattern, where shortening maturities produce a lower interest rate is maintained, the trade-off is not especially favourable just now. In other words, it can be said that at present it is (almost) free of charge to wait for more information.

In addition to this reasoning, it can be added that there is also a discussion on the whether the ongoing reduction of central government debt can contribute to a further reduction of long-term interest rates and that the yield curve may durably have a markedly negative slope, at any rate in the longest part. This would be caused by a high level of demand from investors who wish to have long government securities for matching reasons, for instance insurance companies and pension funds, in relation to the supply provided by the state. The decrease in central government debt can hasten a course of events of this kind. This would reinforce the conclusion that it would be overhasty to propose a shortening of the maturity of the debt this year.

However, these mechanisms mainly affect the yield curve for government securities and in particular maturities longer than five years. During the spring, the interest rate on our thirteen-year bond has been lower than the interest rate on the five-year. The interest rate curve for swap rates still has a positive slope, however. In principle, we can use the interest rate differences between different maturities on government bonds to reduce the costs without needing changed guidelines for the average maturity of central government debt on that account. This is because we can borrow in long maturities without extending the maturity of the debt in terms of average maturity exposure by swapping a large part of the bond debt to short interest rates. What we then benefit from, in

terms of lower costs, is the greater swap spread (the difference between the swap rate and the interest on government securities) at longer maturities. If one wishes to fix potential low interest rate levels on long nominal government bonds, then one should refrain from swapping this borrowing to short-term interest rates. This would, everything else being equal, require a prolongation of the maturity target. With an inverted yield curve, both for swap and bond rates, the need for striking a balance between expected cost and re-fixing risk is removed. The state can then reduce both by extending the maturity of the debt.⁴

In the light of this, the Debt Office considers that there is no reason to change the benchmark for the maturity of central government debt in relation to the indicative decision made by the Government in 2006. The proposal on the benchmark for the maturity of the debt is contained in section 3.4. However, the question can obtain renewed attention in the guidelines for future years.

The composition of the debt

As regards the composition of the debt, we now make the assessment that there is no reason to expect the expected costs to be markedly affected by the choice between nominal krona debt, inflation-linked krona debt and foreign currency debt. Here it concerns mainly whether the risk level of the debt will be lower through it containing three kinds of debt instead of only one or two, i.e. a diversification effect. In this way, redistributions will probably produce little benefit in terms of expected cost between the three types of debt.

This assessment is conditional on the foreign currency debt having approximately the same composition. This is characterised by the Debt Office placing the emphasis on spreading the risks between several

⁴ If long-term interest rates become lower than short-term, the risk limitation is instead set by the fact that market value risks can be relevant if the state issues such a large number of long bonds that buybacks before maturity may be necessary if there is a marked reduction in central government debt. However, the state should accept considerable market value risks in a situation where central government debt is at a low level. Reasons of symmetry argue that risk aversion should be low in this situation, regardless of the type of risk involved.

currencies and that the foreign currency debt should have a low currency risk. If the composition of the foreign currency debt changes, the foreign currency debt would also have other characteristics. The decision on the composition of the foreign currency debt has been delegated to the Debt Office although there is reason to take up certain questions of principle here and the possibilities that are available, in particular if the Government's decision on the share of foreign currency debt is based on the Debt Office managing the composition of foreign currency debt in a particular way.

The Debt Office makes the assessment that, in the light of the fact that the state can conceivably accept greater risks, there may be reason to change the composition of the foreign currency debt. We have already taken certain steps in this direction by increasing the proportion of Swiss francs than would have been justified on the basis of efforts to minimise foreign currency risks. This has taken place with reference to the Swiss interest rates being systematically low and that the interest rate difference has historically not been counterbalanced by the value of the currency increasing to a corresponding extent. There is now reason to investigate whether the composition of the foreign currency debt should be changed to achieve lower expected costs. We will return to this in section 3.1.

A change in this direction has repercussions on other parts of the guidelines. As we underlined above, the starting point for the current guidelines is that the foreign currency debt has the same expected costs as other types of debt and it is motivated by reasons of diversification. The foreign currency share has been set at 15 per cent with the argument that it should produce a marked diversifying effect without any significant exchange rate risks. If the composition of the foreign currency debt changes with the aim of decreasing the expected cost (at a price of higher risk and possibly reduced diversification of interest rate risks), this analysis will no longer apply. In this way, the question of how large the foreign currency share will be is brought to the fore.

The dilemma is that we do not have any robust methods or models to calibrate the proportion in terms of the balance to be struck between cost and risk.

We have to rely on assessments. The conclusion that 15 per cent is an appropriate proportion to achieve a well-considered diversification effect is also based on an assessment. To this extent, what is new is that the basis of assessment must be different.

A pragmatic taking of position for 2008 can be said to be that a foreign currency share of 15 per cent will remain well-considered with a greater element of risk in a situation where the state is prepared to accept somewhat greater risks. The choice of the shares is to some extent arbitrary although if the underlying analysis is reasonable, it can none the less be argued that a re-weighting of the composition of the foreign currency debt brings the state closer to the goal of cost minimisation while taking into account risk.

Conclusion

To sum up, it is not possible to disregard that the reduced central government debt means new challenges for central government debt management. It involves, inter alia, making use of the infrastructure that has been built up over a long period of time with liquid markets, good investor confidence, dealers, etc. With the levels of debt that we reach in our calculation

example (section 1.1), we see a number of possible paths in front of us to achieve this target. Examples of measures that have been already implemented or can be implemented are to concentrate lending to fewer maturities, reduce the number of auctions, and concentrate borrowing on nominal bonds.

In other words, our conclusion is that even if central government debt management is confronted by a number of difficult balances to be struck in a situation of surpluses, it is not yet the case that the guidelines for the composition and maturity of central government debt need to be changed. Unless the debt decreases considerably more than in the present forecasts, there are measures to take which enable the liquidity in the various market segments to be satisfactory and to avoid an increase in the state's costs due to the debt being allocated to too many instruments. In the light of the stronger central government finances, we consider, however, that there are reasons to review the composition of the foreign currency debt in order, if possible, to reduce the expected costs at the price of a slightly higher risk in the foreign currency debt.

2 Control of the comprehensive maturity

2.1 The role of comprehensive maturity

The Government decides since last year on a benchmark for the maturity of the central government debt, measured as the average interest rate refixing period (IRP), which includes all types of debt.⁵ The interest rate refixing risk and the re-financing risk of the debt are controlled by the benchmark for IRP. At the same time, the choice of IRP affects the expected cost. The comprehensive measure of maturity is intended to enable the Government to provide an expression for a holistic approach to the trade-off between cost and risk.

At the same time as the Government decides on the comprehensive IRP benchmark, the Government has instructed the Debt Office to set internal guidelines on how the interest rate refixing period is to be allocated between the three debt components. This is because it is possible to achieve a particular IRP with many different combinations of maturities for the respective type of debt. To achieve an appropriate control, the maturities must therefore be allocated to the benchmarks for the respective type of debt. Furthermore, the Government has instructed the Debt Office to set operational deviation intervals around the respective benchmark for the type of debt. The ongoing and operational control then takes place in relation to the benchmark for each type of debt.⁶

⁵ Previously the Government only set a comprehensive benchmark around the nominal krona debt and the foreign currency debt. The inflation-linked debt is also included now. See last year's proposed guidelines (Debt Office Dnr 2006/1679) and guideline decisions (Government Decision, 9 November 2006). See the proposed guidelines for 2006 for a detailed discussion about the cost and risk aspects of the maturity and the IRP measure (Debt Office Dnr 2005/1792).

⁶ When calculating the comprehensive maturity, the actual maturities of the debt components are weighed together with their benchmark shares (i.e. 15 per cent foreign currency debt, 25 per cent inflation-linked debt and 60 per cent nominal debt). By using target shares, adaptation problems arising due to changes in the actual shares are avoided.

The Debt Office's proposal for the comprehensive maturity is based on analyses and deliberations around the maturity of each debt component. Even if it were in principle desirable to be able to derive the benchmark for the comprehensive maturity from what was overall a well-considered maturity and first then allocate these between types of debt, this has not been regarded as a feasible approach. This is because it is necessary to take into account the conditions and characteristics of each type of debt when striking a balance between cost and risk.

All in all, this means that the comprehensive maturity is a tool for the Government's control of the maturity of the central government debt at an overarching level. By specifying the guidelines for the comprehensive maturity, the Government can decide on the direction at an overarching level and delegate implementation to the Debt Office. The Debt Office allocates the maturities to the debt components in order to achieve the comprehensive maturity. The comprehensive maturity thus does not have any controlling role in the day-to-day management. Instead, in the day-to-day management, the types of debt are controlled in relation to their respective benchmark. It follows from this as well that monitoring and evaluation in the first place takes place with respect to how the debt components have developed in relation to their benchmarks and the underlying considerations.

2.2 The development of the comprehensive maturity

As shown in section 2.1, the comprehensive maturity is a weighing-together of the maturities of the debt components. As long as the maturities and shares of the debt components are fixed, the comprehensive maturity will not change. If the maturity benchmarks and/or share targets for the debt components change, the benchmark for the comprehensive maturity will also need to be changed.

In practice, however, the comprehensive maturity is also affected by the ability to control debt components in relation to the maturity benchmarks and the share targets. The nominal krona debt and the foreign currency debt can relatively easily be guided towards their benchmarks. However, the extent of control is small for inflation-linked debt. In practice, it is therefore the maturity of the inflation-linked debt which affects the development of the comprehensive maturity. The answer to the question of when the comprehensive maturity can be expected to stabilise lies therefore – as long as the maturity benchmarks for the nominal krona debt and the foreign currency debt and the share targets remain fixed – in how inflation-linked debt develops. We shall therefore discuss the maturity of the inflation-link debt in the following section.

2.2.1 The maturity of inflation-linked debt

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

This means that the passage of time, which brings outstanding bonds closer to maturity, is the wholly dominant factor which influences the maturity of inflation-linked debt – at least as long as we do not issue any new and longer bond. The maturity of the outstanding stock will thus gradually decrease with time. This is reflected in current guidelines where the benchmark of the comprehensive maturity will gradually decrease due to a reduction in the maturity of the inflation-linked debt.⁷

⁷ See Table 4 of the Guidelines for Central Government Debt Management 2007.

In order to answer the question about when and under what conditions, the comprehensive maturity stabilises, it is thus sufficient to answer the question of when the maturity of the inflation-linked debt stabilises. We start by examining the arguments that have led to today's maturity. We then look forwards.

Arguments on the introduction of inflation-linked borrowing

Cost saving was the main argument on which borrowing in inflation-linked bonds rested when they were introduced at the beginning of 1994. The reasoning was based on investors generally being more interested in the inflation-linked than the nominal yield and that they therefore should be willing to pay a premium to avoid the risk of inflation. By issuing inflation-linked bonds, the state should be able to benefit from this premium.

In addition, the assessment of the Debt Office and the Government was originally that it would be appropriate for inflation-linked bonds to be issued with a maturity of 10–20 years. This assessment was based on the reasoning that uncertainty about the future development of inflation is greater, the longer the investment horizon is. Accordingly, investors should be willing to pay for inflation protection, the longer the maturity of the bond.

A gradually changed approach

During the years 1994–2006, the Government did not set any specific maturity for the inflation-linked debt. The market conditions made it difficult to control the interest rate refixing period in the inflation-linked loan portfolio. This difficulty was based on the lack of derivative instruments, which meant that the Debt Office only had issues as an instrument of control. Since inflation-linked debt was moreover largely demand-controlled – the inflation-linked bond market did not have the liquidity required to enable us to issue in the desired maturity in every situation – and the issue volumes were small in the normal case in relation to the outstanding stock, this meant that what we had available was a blunt instrument for control of the maturity of central government debt.

Instead of having a fixed benchmark, the guidelines for maturity were designed in such a way during the

first years that the Debt Office would focus in the first place on issuing inflation-linked loans with interest rate refixing periods of ten years or longer.

Despite the fact that uncertainty about inflation should be greatest in the long term, experience soon showed that the state of demand in the market varied and that the short-term loans were most in demand at times. The Government considered that it was important that the Debt Office was able to meet demand with a view to promoting liquidity and therefore adjusted the lower limit for maturity of the borrowing gradually downwards so that the shortest loan remained an issue loan. However, inflation-linked borrowing continued to have a long average maturity since the inflation risk premium should be greatest in the longer maturity segment.

For 2005, the Government finally removed the restriction on maturity, which was then that newly-issued inflation-linked bonds were to have a maturity of at least five years, giving the reason that it did not serve any real purpose. Experience could not show that long borrowing was cheapest as a rule. The choice of maturity in the Debt Office's issues of inflation-linked bonds should subsequently – like the decision on how much should be issued – be controlled by demand for inflation-linked bonds and the costs of borrowing in other types of debt taking account of risks.

In the guidelines for 2007, the Government went the whole way and included inflation-linked debt in the benchmark for the comprehensive maturity. Through a comprehensive benchmark for the whole maturity of the debt, the Government would have better opportunities to control the expected costs and risks that are associated with central government debt. On the same occasion, the Debt Office's mandate to decide on maturity benchmarks for the individual debt components was expanded to also include inflation-linked debt. The Government underlined that the real control of maturity should take place at the operational level, since a more detailed control by the Government risks leading to transaction costs which are not in proportion to the benefits that can be achieved. The Debt Office decided for practical reasons – as shown above – to let the benchmark for the inflation-linked debt fall apace with outstanding loans approaching maturity.

The maturity of the inflation-linked debt in the period to come

There are reasons that indicate that the inflation-linked bond curve should extend in the long term at the longest to at least 15 years. The inflation-linked bond market does not require in the same way as the nominal that there should be an outstanding ten-year maturity the whole time. We can therefore have fewer outstanding maturities. With the anticipated smaller central government debt and with an outstanding volume of, say, SEK 40–50 billion per loan, there is not scope for more than three or four maturities.⁸ The shortest should therefore be around five years and the longest around 15 years or 20 years. Three maturities are also what should at least be available for investors to be able to take positions by reallocating their holdings.

The maturity of the inflation-linked debt would then continue to decrease in the next few years apace with the outstanding bonds approaching maturity. Exactly which maturity we will eventually land at – if and when we have reached the 15/20-year inflation-linked curve – is impossible to answer, among other things, because the average maturity will vary over a broad interval if we work with few loans and, for example, five years between maturities. However, it is clear that the average maturity in this case will be shorter than today.

The inflation-linked debt now has a maturity of around 10.8 years. The fact that the inflation-linked debt is so long is due to our previously assuming that there were cost benefits with extra long inflation-linked borrowing. Experiences have led us to gradually reconsider this point of view. The possible additional inflation risk premium which the state can earn on long inflation-linked borrowing is counteracted in practice by maturity and liquidity risk premiums increasing the longer out on the curve that the state borrows. In recent years, the state has therefore successively borrowed

⁸ Note that a stock of SEK 150 billion measured in conventional terms can be compatible with an inflation-linked share of 25 per cent measured in terms of the share measure applied in the guidelines. The latter provides a considerably higher inflation-linked share since it includes future inflation compensation. At the end of the first half of the year, the inflation-linked share measured according to the conventional debt measure was 18.4 per cent while the inflation-linked share, according to the guideline measure the central government debt's Aggregate Cash Flows (CCF), amounted to 26 per cent.

in increasingly short maturities in the inflation-linked debt. Our assessment is that this policy continues to serve its purpose, which means that the maturity of the inflation-linked debt in the coming five-year period should continue to gradually decrease.

Beyond the five-year horizon, we expect, as far as we can now assess, that the maturity of the inflation-linked debt will stabilise either through our issuing a new fifteen-year loan at particular intervals or alternatively an even longer loan, for instance a twenty-year loan. As long as we do not access to a well-developed inflation derivative market, this means that in practice the maturity of the inflation-linked debt will show a serrated pattern. Between new issues, the maturity will gradually diminish to again increase when an inflation-linked loan matures or when a new long maturity is introduced. The comprehensive maturity is not stabilised in other words at an absolute fixed benchmark. Under conditions that are otherwise constant, it will, however, fluctuate around a long-term stable maturity.

2.2.2 The comprehensive maturity of the debt

– outlook

The development of the overall maturity is thus determined – as long as the benchmarks and share targets remain fixed – by the development of the maturity of the inflation-linked debt. It is today difficult to foresee exactly how the maturity of the inflation-linked debt will develop in the longer term. To obtain a picture of the development, a number of factors must be taken into consideration and assumptions made.

In the first place, the cost aspect must be taken into account. We described in the preceding section how the view of the maturity of the inflation-linked debt has developed over the years and where we stand today. It is, of course, difficult to predict how the costs of borrowing in different maturities will develop, since demand, and thus inflation-linked interest, break-even inflation etc., will vary over time. It is therefore impossible to determine today the maturities in which there will be a demand for inflation-linked bonds at the time of introduction of a new inflation-linked loan. This has a bearing on how long the longest maturity in the inflation-linked market should be. We have discussed two alternatives here: 15 or 20 years. There is today no

reason to commit ourselves to only one alternative. We already have an inflation-linked bond of 21 years. It is probable that a decision on this matter can wait for at least five years.

Another important factor is the development of the borrowing requirement. Current forecasts indicate large surpluses. The proportion of inflation-linked bonds then increases through the total debt diminishing. Borrowing in inflation-linked bonds can then need to decrease since the share of inflation-linked bonds risks exceeding the share targets. A reduced new borrowing in inflation-linked bonds entails in turn that the maturity will decrease more quickly than would otherwise have been the case. We are at present analysing the development of the inflation-linked share and the consequences that an increasing share would entail, see section 3.2. However, it is too early to already now decide the measures that should be undertaken.

However, we know today that the maturity of the inflation-linked debt in the coming three years (2008–2010) will fall with the passage of time by an average of 0.7 years per year. In conjunction with any future exchanges or buybacks, the maturity (as we measure it) can be extended by our buying back larger volumes (in shorter maturities) than we issue (in longer maturities) in exchanges that are riskneutrals.

Even if we cannot definitely say when the trend change of the comprehensive maturity will cease, it is evident that the maturity in the coming five-year period will decrease over time. Thereafter, we expect that the maturity will stabilise around a long-term average value. Annual variations around this are explained by our not issuing a new inflation-linked loan every year, which entails periods with a shortening of the maturity which will again be extended in the event of new issues and maturities.

2.3 Conclusion

The comprehensive maturity will gradually decrease in the next few years. The reason for this is that the maturity of the inflation-linked debt will gradually decrease as outstanding inflation-linked bonds approach maturity. The exact development of maturity should be allowed to depend on the continued

development of the borrowing requirement, and thus the development of the share of inflation-linked debt, and the exchanges and other measures which we may need to undertake to reduce the size of the inflation-linked debt. In the longer term, we can probably keep the comprehensive maturity of the debt at a long-term average value. However, we regard it as unavoidable that annual fluctuations around a maturity average must be permitted as long as the inflation derivative markets are undeveloped.

3 Proposed guidelines

3.1 Foreign currency debt (amortisation and share)

The Debt Office's proposal: The share of foreign currency debt shall decrease to 15 per cent. There should be a control interval of ± 2 percentage points around the share target.

The benchmark for the amortisation rate shall be set at SEK 40 billion during 2008. The Debt Office may deviate from the amortisation rate by SEK ± 15 billion.

It should be possible to introduce the new share-based control system around the turn of the year 2008/2009. The Debt Office shall inform the Government when it is considered most suitable to change over to a share-based control system.

3.1.1 Current guidelines

The Government decided last year that the share of foreign currency debt should decrease in the long term to 15 per cent and that the benchmark for the amortisation rate during 2007 should be SEK 40 billion.⁹ The amortisation rate was also set at SEK 40 billion in 2008 and 2009. The Government also decided that the Debt Office should be able to deviate from the amortisation benchmark by SEK ± 15 billion. Flexibility is to be used to promote the target of minimising costs while taking risk into account.

In last year's proposed guidelines, the Government also decided to introduce a new control system for

control of share targets. The control system means that the Government should specify a benchmark for the share of foreign currency debt around this benchmark. However, the Government decided to wait with the introduction of the new control system until the foreign currency debt had reached the level desired in the long term.

3.1.2 Considerations and proposals

As shown in section 1.2.3, we are not proposing any change of the target share. As in the discussion in last year's proposed guidelines, we consider that a control interval of ± 2 percentage points to be well-considered.

Last year, the Government stated that the amortisation rate for 2008 and 2009 should be SEK 40 billion. This was an increase from the proposal of SEK 25 billion made by the Debt Office for the respective years. The reason for the increased rate was that the prospects of central government finances had changed markedly through increased tax income and decreased expenditure. Moreover, large sales income was expected to further reduce the central government borrowing requirement. There was therefore scope to increase the rate of amortisation to reduce the risk and more quickly achieve the share target.

According to the Debt Office, nothing has taken place to indicate that the amortisation rate should be changed. Central government finances are showing a continued positive development, which could argue in favour of a further increase in the amortisation rate. The argument against this is that the scope for amortisation is limited. Around SEK 50 billion of foreign currency loans mature next year. To amortise more than SEK 50 billion would therefore require buybacks of outstanding loans which would probably

⁹ The calculation of shares is based on the measure the central government debt's Aggregate Cash Flows. See the Proposed Guidelines for 2007 (Dnr 2006/1679) for a detailed description.

be expensive. Moreover, a buffer is required in the amortisation rate to avoid exchange rate changes leading to the amortisation target being exceeded. Finally, an increased rate entails that the share target will only be reached marginally earlier, i.e. the risk reduction is small from an increased pace.

The Debt Office proposes no amortisation rate for 2009 and subsequently. Current forecasts indicate that the share targets will be achieved around the turn of the year 2008/2009. The new share-based control system shall then replace the system with an amortisation rate specified by amount. However, it is difficult to say now when it will be time to change system. Besides the pace of amortisation, the borrowing requirement and the development of the exchange rate for the krona will determine when the share target will be achieved. The Debt Office therefore proposes that we report back to the Government with a proposal on changing the control system when the time is deemed right.

3.1.3 The composition of the foreign currency debt

In section 1.2, we noted that a reduced central government debt should mean that the risk can be increased given that the expected costs thereby decrease. A feasible way of achieving this is to change the composition of the foreign currency debt. The present composition of foreign currency debt means that the foreign currency debt shall have a low currency risk.

With today's favourable state of central government finances, there is reason to investigate the possibility of reducing the expected costs by changing the composition of the foreign currency debt. The Debt Office intends to review the composition of foreign currency debt on the basis that we shall endeavour to obtain lower expected costs rather than as to date when the goal has been low foreign currency risk.

3.2 The share of inflation-linked debt

The Debt Office's proposal: The share of real krona debt shall be 25 per cent of the central government debt. The Debt Office shall set a deviation interval around the share of inflation-linked debt.

3.2.1 Current guidelines

The Debt Office's proposal corresponds to current guidelines.

3.2.2 Considerations and proposals

The Debt Office is not proposing any change in the benchmark for the share target. Previous discussions and analyses have indicated that 25 per cent can be regarded as a reasonable benchmark on the basis of a cost and risk perspective.¹⁰ According to the Debt Office, there is at present nothing from a cost or risk perspective to indicate a different share target. However, the expected reduction of central government debt entails that there will be a trend of increases in the inflation-linked share of the debt. There is therefore reason to analyse how this is to be handled.

The fact that a reduced central government debt entails an increase in the inflation-linked share is because there is no possibility of controlling this share in the short- and medium term, other than very roughly. The reason is primarily that the inflation-linked share only to a small extent is affected by issues and maturities. In the next coming years only small volumes of inflation-linked debt matures. There is not either any sufficiently well-developed market for inflation-linked derivative instruments to use to control the share of the inflation-linked debt. Furthermore, large buybacks with the intention of reducing the outstanding stock of outstanding loans could be expensive. This sluggishness makes it difficult in the short and medium term to adjust the share of inflation-linked debt to changes in size of the total debt. A reduction of the size of central government debt – i.e. the development we see today – therefore entails that the share of inflation-linked debt will automatically increase and the share will exceed the benchmark in the next few years.

The share of inflation-linked debt is at present 26 per cent (31 August 2007), i.e. above the benchmark but within the deviation interval of ± 2 percentage points. Our calculations (based on current borrowing requirement forecasts and the loan plan) show that the proportion in 2008 will periodically reach around 30

¹⁰ The calculation of shares is based on the measure the central government debt's Aggregate Cash Flows. See the Proposed Guidelines for 2007 (Dnr 2006/1679) for a detailed description.

per cent, to fall towards the end of the year to around 27 per cent in connection with a maturing loan.

In last year's proposed guidelines, our analyses indicated a deviation interval of between ± 2 and 3 percentage points would be needed. The Debt Office then decided that the interval should be ± 2 percentage points. We will now very probably need a space of up towards ± 5 percentage points, i.e. clearly above the indications given by last year's calculations. The reason is that, as discussed above, there are no tools to reduce the inflation-linked share at reasonable costs. The auction volume have already been reduced, although some presence in the primary market is deemed important for the inflation-linked market to continue to function well, and also in future constitute a possible source of funding.

If the time perspective is extended, our calculations indicate that the inflation-linked share in the years after 2008 will probably again reach levels of over 30 per cent. Once again, the reduced total debt will lead the inflation-linked share to increase. The proportion of inflation-linked debt will, to a greater extent, decrease when loans mature. Loan 3106 matures in 2012 while the share despite this will be over the share target of 25 per cent. The next major maturity will be in 2015, when loan 3105 matures. This loan is large and the share will therefore decrease considerably.

Altogether, this indicates that the long-term control of the inflation-linked share will need to be reviewed. However, the question is not straightforward since both principal and practical aspects must be taken into account. For instance, we must take into consideration how the view of risks is affected by decreasing debt, which was discussed in section 1.2.1. Furthermore, as shown in section 1.2.2, consideration should be taken to maintaining the infrastructure that has been built up and good investor confidence. It is not possible to say today with certainty how the borrowing requirement and thus the proportion of inflation-linked debt will develop after 2008. There is therefore a need to analyse the long-term inflation-linked share in more depth. Furthermore, discussions should take place with the market participants on the consequences of different alternatives. The Debt

Office will return to the question in next year's proposed guidelines.

3.3 The share of nominal krona debt

The Debt Office's proposal: In addition to inflation-linked krona borrowing and borrowing in foreign currency, the central government financing requirement shall be covered by nominal loans in kronor. The share target for the nominal krona debt will thus by definition be 60 per cent of the central government debt.

3.3.1 Current guidelines

The Debt Office's proposal corresponds to current guidelines.

3.3.2 Considerations and proposals

The guidelines for central government debt management are based on the debt consisting of three components: inflation-linked debt, foreign currency debt and nominal krona debt. With specified guidelines for inflation-linked borrowing and borrowing in foreign currency, it follows by definition that the remaining part of the borrowing requirement shall be covered by the nominal krona loans.

Through the Debt Office regularly having auctions of both bonds and T-bills, it is simple to manage changes in the gross borrowing requirement in this market. The krona market thus serves as a buffer for fluctuations in the borrowing requirement or if plans for both other debt types were to change.

3.4 Maturity

The Debt Office's proposal: The benchmark for the comprehensive maturity in central government debt shall be 4.8 years at the end of 2008. The direction for the corresponding dates in 2009 and 2010 shall be 4.6 and 4.5 years respectively. The Debt Office shall break down the comprehensive benchmark to separate benchmarks for each individual debt type and specify guidelines for the operational management of maturities.

3.4.1 Current guidelines

The Government decided last year that the benchmark for the comprehensive maturity of the central government debt should be 4.7 years at the end of 2007. The corresponding dates in 2008 and 2009 should be 4.6 and 4.4 years respectively.¹¹ The Government's decision also meant that all types of debt are now included in the comprehensive maturity (see section 2.1).

3.4.2 Considerations and proposals

The maturity of the debt was discussed in detail in last year's proposed guidelines. According to the assessment, there was then scope to shorten the maturity. It was deemed possible to reduce the expected costs without a significant increase in the total risk level. The analyses indicate that the shortening of the maturity would be achieved by a reduction of the maturity of the foreign currency debt and by gradually allowing the maturity of the inflation-linked debt to decrease apace with the inflation-linked debt approaching maturity. The analyses also indicated that the maturity of the nominal debt should be left unchanged.

The Government decided to reduce the comprehensive maturity of the central government debt during 2007, and the benchmark was set at the end of the year to 4.7 years. The benchmark was further reduced in the coming two years to 4.6 and 4.4 years respectively. These benchmarks also apply at the end of the respective year. The fact that the benchmarks apply at the end of the year is due to the maturity of the inflation-linked debt gradually changing during the year. In our view, nothing has emerged which changes our basic assessments that lay behind last year's proposal. We therefore propose the same benchmarks in principle as for the current period.

However, the benchmarks for 2008 and 2009 must be adjusted for technical reasons compared with last year's proposed guidelines. The reason for this is the actual development of the maturity of the inflation-linked debt. The proposed maturities are based on the loan plans for the inflation-linked debt which exist at the time of the proposed guidelines. Borrowing and

¹¹ The maturity is measured as an average interest rate refixing period. See the Proposed Guidelines for 2006 (Dnr 2005/1792) for a detailed description.

other measures such as purchases and buybacks cannot, however, always be implemented as planned. The plans are therefore continuously revised during the year. This in turn means that the forecast for the maturity of the inflation-linked debt is also changed based on outcomes and new loan plans. The change in the benchmarks for the comprehensive maturity (compared with last year's proposal) therefore affects revisions of current issue plans. The adjustment means that the benchmarks for 2008 and 2009 increased by 0.2 years compared with last year's proposal. We assess that this does not have any significant effects on the debt's costs. On the contrary, attempts to counteract these changes would lead to increased costs.

We propose a benchmark of 4.5 years for 2010. The proposal for 2010 is also based on current forecasts for how the maturity of the inflation-linked debt will develop until 2010.

Finally, it should be said that the proposed benchmarks, just as last year, are based on the intended maturity benchmarks for the debt components weighted with the proposed share benchmarks (i.e. 15 per cent foreign currency debt, 25 per cent inflation-linked debt and 60 per cent nominal debt).

3.5 Position-taking

The Debt Office's proposal: Active position-taking by the Debt Office is to be possible in order to lower the cost of the central government debt, while taking risk into account. Positions are to be taken with derivative instruments. The extent of the position-taking is limited by the Government's specification of a highest risk level, measured in terms of daily Value-at-Risk. The risk limitation is to include all of the Debt Office's positions except those that relate to the krona's exchange rates for other currencies.

The limitation on the Debt Office's position-taking is to be set at SEK 600 million, measured as daily Value-at-Risk at 95 per cent probability. The Board of the Debt Office is to decide how the risk mandate is to be divided between the strategic and operational levels.

3.5.1 Current guidelines

The Debt Office's proposal corresponds to the current guidelines.

3.5.2 Considerations and proposals

The Government decided last year for the first time on a uniformly worded risk mandate. In this way, the Government – compared with earlier decision structures – obtained a better grasp of the risks that the Debt Office was able to take (in addition to those following from the central government debt having the characteristics that were established in the other guidelines). Our view is that this control of the Debt Office's position taking functions well and that there is therefore no reason to propose any change.

3.6 Market and debt support

The Debt Office's proposal: The Debt Office shall promote the proper functioning of the market for government securities by market and debt support. This must not entail setting aside the goal of long-term cost minimisation.

3.6.1 Current guidelines

The Debt Office's proposal corresponds to current guidelines.

3.6.2 Considerations and proposals

It is proposed that the goal for market and debt support be unchanged. The present goal formulation provides good guidance for the Debt Office's work on improving the functioning of the market. However, this can serve the purpose of clarifying why this target is specified as a separate target.

Market and debt support takes place continuously on many levels, everything from technical improvements in the operational borrowing to overarching matters such as maintaining a transparent and predictable borrowing policy. Market and debt support aims in the long term at achieving the overarching goals for central government debt policy, and may therefore not in a long-term perspective entail higher loan costs. The reason we engage in market and debt support is thus for us to minimise the costs of central government debt in the long term and this goal already exists for

central government debt policy. We should thus continue this activity just as now even if a separate goal for market and debt support would be abolished.

One motive for retaining the goal is that the Government finds a special value in an activity of this kind which would justify it even if costs in the long run were not reduced but were wholly unaffected. There could, for instance, appear positive external effects of our market maintenance by it also benefiting other fixed-income markets such as the housing bond market. There is thus reason to have a separate goal for market and debt support despite it really coming under the overarching goal of central government debt management.

3.7 Retail market borrowing

The Debt Office's proposal: The Debt Office shall contribute to reducing the costs of central government debt through retail market borrowing.

3.7.1 Current guidelines

The Government decided last year that the goal for the Debt Office's retail market borrowing shall be to reduce the costs of central government debt. It was specified in the same way as before that "[r]etail market borrowing shall achieve the greatest possible cost saving in relation to the Debt Office's alternative borrowing forms in the capital market".¹²

3.7.2 Considerations and proposals

The goal for retail market borrowing is basically self-evident this year. If the retail market instrument does not provide lower loan costs, it is not possible to motivate borrowing with special instruments directed at the retail market, since corresponding funds are available via the conventional instruments. This perspective becomes clearer through the central government debt reducing in size and the marginal cost of borrowing slightly more than in the other types of debt being negligible. We therefore propose that the goal should be unchanged.

¹² Guidelines for Central Government Debt Management, 2007, p. 29 (Government Decision, 9 November 2006).

However, there is reason to specify in somewhat greater detail what the goal implies. It should be specified that our retail market borrowing should achieve the greatest possible saving in relation to the corresponding borrowing through government bonds or T-bills. This better corresponds to how the evaluation of retail market borrowing takes place, namely through the costs being compared with what loans in corresponding debt types and with corresponding maturities via institutional borrowing had cost at the same time. This reflects the strict requirement on National Debt Savings and lottery bonds to meet the requirement for cost saving.

The choice of words “alternative forms of borrowing” give the impression that it entails a comprehensive evaluation where some form of average borrowing costs can be used as a norm for comparison. Since this is not the case – and, in the view of the Debt Office, should not either be the case – the wording should be modified.

riksgalden.se



Visiting address: Norrlandsgatan 15 • Postal address: SE-103 74 Stockholm • Telephone: +46 8 613 45 00
Fax: +46 8 21 21 63 • E-mail: riksgalden@riksgalden.se • Internet: www.riksgalden.se