RIKSGÄLDEN
SWEDISH NATIONAL DEBT OFFICE

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Central government debt management

Proposed guidelines 2016–2019

Summary

In this report the Swedish National Debt Office presents proposed guidelines for 2016–2019. For the period from 2017 up to and including 2019 the proposals are preliminary. The objective is to manage the debt in such a way as to minimise the cost of the debt in the long-term while taking risk in its management into account. Debt management is to take place within the framework of monetary policy requirements.

Ahead of this year's proposed guidelines the Debt Office has analysed the importance of the maturity of the central government debt. The result of this analysis is that the Debt Office wishes to nuance its earlier starting point that it is cheaper to borrow in instruments with short rather than long maturities.

For several reasons, the cost difference between short-term and long-term borrowing appears to be smaller than in the past. The trade-off between the expected cost saving and the increased risk that short-term borrowing entails should therefore be adjusted.

The Debt Office makes the assessment that the maturity of the debt should continue to be relatively short, but that there is scope for a gradual extension of the maturity of the debt. However, this should be done in small steps.

Since the borrowing costs of short and long instruments appear to have moved closer to one another, it is less appropriate to steer the maturity of the debt within a narrow interval. The Debt Office therefore considers that the maturity interval of the nominal krona debt should be broadened. For the same reason, the Debt Office proposes that the maturity of the foreign currency debt should be steered within an interval instead of towards a benchmark.

The deliberations of the Debt Office mean that the following wording is proposed for the guidelines for the management of the central government debt:

- The maturity of the nominal krona debt for instruments with maturities of up to twelve years is to be between 2.6 and 3.6 years.
- The maturity of the inflation-linked krona debt is to be between 6 and 9 years.
- The maturity of the foreign currency debt is to be between 0 and 1 year.

This proposal means that the guidelines will contain maturity intervals for all types of debt. The requirement in the current guidelines that the Debt Office has to set deviation intervals around the maturity benchmarks set by the Government for the various types of debt can therefore be removed.

Finally, the Debt Office notes that with the present level of interest rates the borrowing cost in the retail market exceeds the cost of equivalent borrowing in the institutional market. According to the guidelines, retail market borrowing is to contribute to reducing the costs of the central government debt.

The evaluation of the management of the central government debt covers five-year periods. If the unfavourable situation in the retail market is long-lasting, it may eventually become necessary to review how the retail market borrowing is conducted.

The Debt Office is following the development of retail market borrowing closely and will, if necessary, return to the matter in future proposed guidelines.

Proposed guidelines 2016–2019

Here the Debt Office presents proposed guidelines for central government debt management during 2016–2019. For the period from 2017 up to and including 2019 the proposals are for preliminary guidelines. In the cases where changes are proposed to the guidelines, the current wording is given in the left column and the proposed new wording in the right column. In order to provide an overview of the decisions that govern the management of the central government debt the relevant parts of the Budget Act (2011:203) and the Ordinance (2007:1447) containing Instructions for the National Debt Office have also been included.

The objective for the management of central government debt

1. The central government debt shall be managed in such a way as to minimise the cost of the debt in the long-term while taking risk in its management into account. The management of the debt shall be conducted within the framework of monetary policy requirements. Budget Act (2011:203).

The task of the Debt Office and the purpose of borrowing

2. The task of the Debt Office is to raise and manage loans for central government in accordance with the Budget Act (2011:203). Ordinance (2007:1447) containing Instructions for the National Debt Office.

3. Under the Budget Act (2011:203) the Debt Office may raise loans for central government in order to:

    1. finance current deficits in the central government budget and other expenditure based on decisions of the Riksdag (the Swedish Parliament);
    2. provide credits and perform guarantees decided by the Riksdag;
    3. amortise, redeem and buy back central government loans;
    4. meet the need for central government loans at different maturities in consultation with the Riksbank; and
    5. satisfy the Riksbank's need for foreign currency reserves.

The guidelines process

4. The Debt Office shall submit proposed guidelines for the management of the Government debt to the Government no later than 1 October each year. Ordinance (2007:1447) containing Instructions for the National Debt Office.

5. The Government shall give the Riksbank the opportunity to comment on the Debt Office's proposed guidelines. Budget Act (2011:203).

6. The Government shall adopt guidelines for the Debt Office's management of the central government debt no later than 15 November each year. Budget Act (2011:203).

7. The Debt Office shall submit information for the evaluation of the management of the central government debt to the Government no later than 22 February each year. Ordinance (2007:1447) containing Instructions for the National Debt Office.

8. The Government shall evaluate the management of the central government debt every other year. The evaluation shall be presented to the Riksdag no later than 25 April. Budget Act (2011:203).

9. The Debt Office shall establish principles for the implementation of the guidelines for central government debt management adopted by the Government. Ordinance (2007:1447) containing Instructions for the National Debt Office.

Present wording	Proposed wording
10. The Debt Office shall establish internal guidelines based on the Government's guidelines. The decisions shall	10. The Debt Office shall establish internal guidelines based on the Government's guidelines. The decisions shall

concern *deviation intervals for the maturity benchmarks decided by the Government for each type of debt*, the use of the position mandate, the foreign currency distribution in the foreign currency debt and principles for market and debt maintenance.

concern the use of the position mandate, the foreign currency distribution in the foreign currency debt and principles for market and debt maintenance.

Composition of central government debt – debt shares

11. The share of inflation-linked krona debt in the central government debt is to be 20 per cent in the long term.

    The shares of the debt types in the central government debt are to be calculated as nominal amounts at the current exchange rate including accrued compensation for inflation.

12. The foreign currency exposure of the central government debt shall decrease. The decrease is to be no more than SEK 30 billion per year.

    The exposure shall be calculated in a way that excludes changes in the SEK exchange rate.

13. The Debt Office is to set a benchmark for the distribution of the foreign currency debt across different currencies.

14. In addition to inflation-linked krona debt and foreign currency debt, the central government debt is to be composed of nominal krona debt.

Maturity of the central government debt

Present wording

15. The maturity of the nominal krona debt for instruments with maturities of up to twelve years is to be between *2.6 and 3.1 years*.

Proposed wording

15. The maturity of the nominal krona debt for instruments with maturities of up to twelve years is to be between *2.6 and 3.6 years*.

16. For nominal krona instruments with maturities of over twelve years, the long-term benchmark for the outstanding volume is to be SEK 70 billion.

17. The maturity of the inflation-linked krona debt is to be between 6 and 9 years.

Present wording

18. The maturity of the foreign currency debt is to be *0.125 years*.

Proposed wording

18. The maturity of the foreign currency debt is to be between *0 and 1 year*.

19. The maturity of the types of debt may deviate temporarily from the maturities given in points 15, 17 and 18.

20. Maturity is to be measured as duration.

Cost and risk

21. The trade-off between expected cost and risk is primarily to be made through the choice of the composition and maturity of the central government debt.

22. The main cost measure is to be the average issue yield.

23. The main risk measure is to be the average issue yield risk.

24. The Debt Office is to take account of refinancing risks in the management of the central government debt.

25. Borrowing shall be conducted in such a way as to ensure a broad investor base and diversification in a range of funding currencies in order to maintain good borrowing preparedness.

26. Positions are not to be included in the calculation of debt shares and maturities.

27. When taking positions, market values are to be used as the measure of the costs and risks in the management of the debt.

Market and debt maintenance

28. The Debt Office is to contribute, through market and debt maintenance, to the efficient functioning of the government securities market in order to achieve the long-term cost minimisation objective while taking account of risk.

29. The Debt Office is to adopt principles for market and debt maintenance.

Position-taking

30. The Debt Office may take positions in foreign currency and the krona exchange rate.

    Positions in foreign currency may only be taken using derivative instruments.

    Positions may not be taken in the Swedish fixed income market.

    Positions refer to transactions that are intended to reduce the costs of the central government debt while taking account of risk and that are not motivated by underlying borrowing or investment requirements.

    Positions may only be taken in markets that permit the management of market risk through liquid and otherwise well-developed derivatives and that are potentially a borrowing currency in the context of debt management.

31. Positions in foreign currency are limited to SEK 300 million, measured as daily Value-at-Risk at 95 per cent probability.

    The Debt Office is to decide how much of this scope may be used at most in its ongoing management.

32. Positions in the krona exchange rate may not exceed a maximum of SEK 7.5 billion. When the positions are built up or wound down, this is to be done gradually and announced in advance.

    The Debt Office is to decide how much of this volume may be used at most in ongoing management in connection with exchanges between the krona and other currencies. This volume shall be of a limited size and the positions do not need to be announced in advance.

Borrowing in the retail market

33. The Debt Office is to contribute through retail market borrowing to reducing the costs of the central government debt compared with equivalent borrowing in the institutional market.

Borrowing to meet the need for central government loans

34. The possibility of raising loans to meet the need for central government loans under Chapter 5, Section 1 of the Budget Act (2011:203) may only be used if required on account of threats to the functioning of the financial market.

    The Debt Office may have outstanding loans with a maximum nominal value of SEK 200 billion for this purpose.

35. Investment of funds raised through loans to meet the need for central government loans should be guided by the principles set out in the Government Support to Credit Institutions Act (2008:814).

Management of funds etc.

36. The Debt Office shall place its funds, to the extent that they are not needed for payments, in an account at the Riksbank, a bank or a credit market company, or in government securities or other debt instruments with a low credit risk. Deposits may be made abroad and in foreign currency. Ordinance (2007:1447) containing Instructions for the National Debt Office.

37. The Debt Office shall cover the deficits that occur in the Government central account. Ordinance (2007:1447) containing Instructions for the National Debt Office.

38. The management of exchanges between Swedish and foreign currency (currency exchanges) shall be predictable and transparent. Ordinance (2007:1447) containing Instructions for the National Debt Office.

Consultation and collaboration

39. The Debt Office shall consult with the Riksbank on matters concerning the parts of its borrowing operations that may be assumed to be of major importance for monetary policy. Ordinance (2007:1447) containing Instructions for the National Debt Office.

40. The Debt Office shall collaborate with the National Institute of Economic Research and the National Financial Management Authority on matters concerning the Debt Office's forecasts of the central government borrowing requirement. Ordinance (2007:1447) containing Instructions for the National Debt Office.

41. The Debt Office should obtain the Riksbank's views on how the funds borrowed to meet the need for central government loans under the Budget Act are to be invested.

Evaluation

42. Evaluation of the management of the central government debt is to be carried out in qualitative terms in the light of the knowledge available at the time of the decision. Where possible, the evaluation shall also include quantitative measures.

    The evaluation shall cover five-year periods.

43. The evaluation of the operational management should include borrowing in and the management of the different types of debt, market and debt maintenance measures and management of currency exchanges.

44. The realised cost difference between inflation-linked and nominal borrowing is to be reported for inflation-linked borrowing.

45. The cost saving compared with alternative borrowing is to be reported for retail market borrowing.

46. Positions within a position-taking mandate given are to be recorded continuously in income on an ongoing basis, and evaluated in terms of market values.

Reasons for the changes proposed

This section gives the background to the changes proposed to the guidelines. The Debt Office proposes extending the maturity of the nominal krona debt and the foreign currency debt. It also proposes broadening the interval within which the maturity of the nominal krona debt is to be steered. Finally, the Debt Office proposes that the maturity of the foreign currency debt should be steered within an interval instead of towards a benchmark.

1 Extended maturity of the central government debt

The Debt Office has analysed how the maturity of the central government debt affects the expected cost of central government borrowing. The assessment of the Debt Office is that it will continue to be advantageous to keep the maturity of the debt relatively short.

However, the Debt Office considers that the cost advantage of short-term borrowing is smaller than in the past. The Debt Office therefore proposes an extension of the maturity of the central government debt. A longer maturity means that the risks in the debt decrease. So the assessment is that this change can be made at a low or no cost.

At present the Debt Office uses interest rate swaps to shorten the maturity of the debt. One simple way of extending the maturity can therefore be to reduce the use of such swaps.

Background

The overall objective of the Debt Office is to minimise the long-term costs of the central government debt while taking account of risk. One important task for the Debt Office is therefore to promote an efficient market for government securities so as to attract many investors, and preferably different types of investors.

Cost and risk in the central government debt are also affected by the composition of the debt. The Debt Office has the task of proposing appropriate shares and maturities for the different types of debt in the central government debt.

The Debt Office's previous analysis behind the choice of maturity has assumed the existence of what are called *'term premiums'*. Positive term premiums mean that long interest rates are usually higher than short interest rates, and this has been true historically. This means, in turn, that it is cheaper over time to borrow in instruments with short rather than long maturities or to use derivative instruments to create short exposure in the central government debt.

On the other hand, borrowing at short maturities means that the interest rate on the debt is refixed more frequently. This increases the risk that borrowing costs will vary more from year to year.

The Debt Office has previously made the assessment that a maturity of around three years, expressed as duration, is a reasonable trade-off between expected cost and risk for the whole of central government debt; one reason being that the market for derivatives is too small to permit the achievement of shorter duration in a cost-effective way. Duration means the average repayment period for the central government debt when both coupon payments and the final repayment are taken into account.[1]

Nominal krona debt

The Debt Office's most important form of funding is nominal krona bonds. Here the Debt Office also has an important task of meeting the market's need for bonds of different maturities. According to the current guidelines up to SEK 70 billion shall consist of instruments that have more than 12 years to maturity. For other instruments the maturity is to be between 2.6 and 3.1 years. Since the bond stock as such has a longer maturity, the Debt Office uses interest rate swaps to shorten the maturity so that it is within the interval set. The outstanding swaps reduce the maturity of the nominal krona debt by about one year.

[1] *Duration is calculated as the weighted average time to maturity of each cash flow (coupons and final payments) where the weights are determined by the market value of each cash flow.*

Inflation-linked krona debt

The Debt Office reaches a broader investor base by also issuing inflation-linked bonds. Inflation-linked bonds can reduce pressure on the market for nominal bonds when the borrowing requirement is large.

In the case of the inflation-linked debt it is not possible to steer maturity using interest rate swaps. Instead guidance is drawn from factors such as demand, liquidity and the management of refinancing risks. The maturity of the inflation-linked debt is therefore longer and the control interval broader. The maturity of the inflation-linked debt is to be between 6 and 9 years.

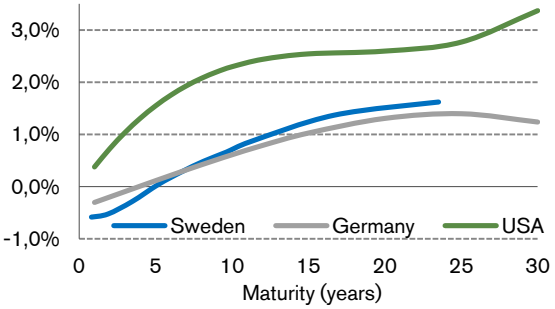
Foreign currency debt

In the foreign currency markets the Debt Office is a small player. So the foreign currency debt can be steered more precisely without influencing the market. In the case of the foreign currency debt, interest rate swaps are again used to steer maturity, which is to be 0.125 years (one and a half month) according to the guidelines.

The yield curve

Joining up the interest rates for different maturities in a curve produces what is called the yield curve. The yield curve thus describes the maturity structure of the interest rates at a given point in time. The curve can take many forms and its appearance varies over time. Figure 1 shows the appearance of the yield curve for Swedish, German and US government securities on 28 August 2015. As is seen, the yield curves had a positive slope, which, as was mentioned above, has been the usual pattern.

Figure 1 Yield curve for Swedish, German and US government securities, 28 August 2015



Unfortunately there are no simple answers as to why the yield curve has that specific appearance, but some guidance can be obtained from what is called the expectations hypothesis. It assumes that market players act on the basis of their expectations about the future, but disregard the risk that they may be wrong. If market players expect rising interest rates, the yield curve will slope upwards according to the expectations hypothesis. This is because, in that case, investors will only make short-term investments pending a rise in interest rates while borrowers want to fix the interest rates on their loans in the long term before interest rates rise. The demand for short investments and long loans will then lead to long rates being higher than short rates. If market players expect interest rates to fall instead, the yield curve will have a downward slope and if interest rates are expected to remain unchanged, the curve will be horizontal.

Historically the yield curve has generally sloped upwards. This may be because, on average, market players have expected interest rates to rise. But it is more reasonable to say that it is because the expectations hypothesis does not capture everything that affects interest rates. The expectations hypothesis needs to be supplemented with something that captures that fact that most market players actually do care about the risk that they may be wrong.

One such supplement starts from the observation that many investors are not keen to tie up their money and prefer to invest in short maturity instruments. The main reason for this is that uncertainty about the future grows as the perspective gets longer. To make longer-term investments, investors therefore demand compensation in the form of higher interest rates. This short-term preference is usually accentuated in periods of great economic uncertainty. Historically one common uncertainty factor has been the future level of inflation.

Borrowers often display the opposite preferences and may be willing to pay a higher rate so as to secure long-term financing. One such borrower may, for example, be an industrial company wanting to secure long-term financing of a production plant. If investors have, in general, more of a short-term preference than borrowers, the yield curve will slope upwards even if market players believe that rates will be unchanged. In other words, the term premium will be positive.

Of course there are also investors with long investment horizons such as life insurance companies and pension funds. Since they have long-term pension commitments in their balance sheets, they want to match these liabilities with

long-term assets. They may actually accept lower interest rates on long maturity instruments. If long-term investors dominated the capital market, the term premium might be negative.

Whether the market is dominated by short-term or long-term investors is an empirical question. Even if the possibility of a negative term premium cannot be ruled out simply as a matter of principle, there is a fairly strong notion among both academics and market players that the term premium ought to be positive in the long term.

How big is the term premium?[2]

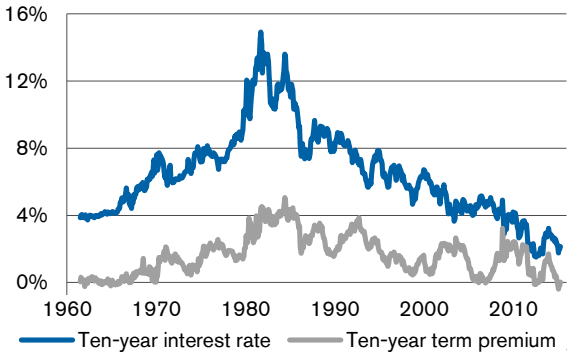
Interest rates today thus depend both on expectations about future rates and on any term premiums. But neither expectations nor term premiums are observable separately, which makes them hard to measure. One common method is to start by estimating the expectations about future interest rates so as to then be able to derive the term premiums.

Expectations can be estimated in many ways and frequent use is made of both questionnaires and economic models. The academic literature is extensive and the methods of measuring expectations and premiums have been developed gradually. But even though the models are now quite advanced, it is still hard to make precise estimates of the size of term premiums. So there are some differences in the results of different studies.

However, some results are frequently reported. Most agree that term premiums have been positive for a long period of time. It is also relatively uncontroversial to say that they have fallen in recent decades, even though the studies are not wholly clear. Many studies also find that term premiums are countercyclical; they fall when economic growth is strong and vice versa.

Figure 2 has been taken from the Federal Reserve Bank of New York and shows the ten-year interest rate and term premium for US government securities.[3]

Figure 2 Ten-year interest rate and term premium for US government securities



Source: Federal Reserve Bank of New York

Both the interest rate and the term premium rose from the mid-1960s to the mid-1980s and then fell back again. The main explanation is held to be that rising inflation in the 1970s made interest rates rise, and as inflation rose there was also a rise in uncertainty about future inflation and future interest rates. This made investors demand higher compensation for making long-term investments, so the term premium rose. Since high inflation often means that uncertainty about future inflation increases, it is natural for term premiums to be high when interest rates are high and vice versa.

Falling term premiums are an international phenomenon and the covariation between term premiums in different countries is high. This is largely due to the covariation of the economic situation in different counties and to the integration of capital markets. Above all, developments in the USA seem to affect interest rates and term premiums in other countries, including Sweden.

The Debt Office has made some preliminary estimates of the size of the term premium in the Swedish market and has used both questionnaires and various models to estimate expectations about future interest rates.[4] The analysis so far largely confirms the picture presented above. Swedish term premiums also seem to have fallen over time and appear to be close to zero at present. The Debt Office's analysis also confirms that it is difficult to make

[2] *This presentation is based on a large number of empirical studies, see, for example, Magnus Dahlquist and Henrik Hasseltoft (2015), "International Bond Risk Premia" that is included in Handbook of Fixed-Income Securities (ed. Pietro Veronesi), Wiley (in publication).*

[3] *Tobias Adrian, Richard K. Crump and Emanuel Moench, "Pricing the Term Structure with Linear Regressions", Journal of Financial Economics 110 (1), October 2013, pp 110-138. The estimates are updated regularly and can be downloaded from http://www.newyorkfed.org/research/data_indicators/term_premia.html.*

[4] *The questionnaires have been conducted by Prospera on behalf of the Debt Office. Some sixty market players have replied giving their expectations about the interest rate on a five year government bond in 3, 12, 24 and 60 months' time. The Debt Office has used two interest rate models: One developed at the Federal Reserve Bank of New York (see foot note 2) and one based on Francis X. Diebold and Canlin Li, "Forecasting the term structure of government bond yields", Journal of Econometrics 130 (2), February 2006, pp 337-364.*

precise estimates of term premiums. In the future the Debt Office will deepen its empirical studies on Swedish data.

Why is the term premium so low?

As already discussed, low inflation has led to falls in interest rates in Sweden and large parts of the world. The fact that it has become easier to predict inflation has probably helped to reduce the term premium.

Another cause of the low interest rates and term premiums may be financial and geopolitical unrest. At times of unrest there is usually a rise in demand for safe investments, such as government securities from countries with a high credit rating.

Moreover, in recent years several central banks have bought large quantities of government bonds with the explicit objective of bringing long-term rates down. Studies of the interventions in the UK and the US show that these measures led to falls in term premiums.

Other factors that may have affected the term premium are new sets of regulations introduced. Insurance companies must now match their long-term commitments by investing more in assets with long maturities. This ought to force down long rates since the insurance companies are the largest investors in the Swedish bond market.[5] New sets of regulations entering into force in coming years may mean that the insurance companies are already demanding more long-term bonds. However, it should be pointed out that the sets of regulations introduced in Sweden have been designed in a way that does not necessarily strengthen the incentives for insurance companies to hold long-term government bonds. So it may be the case that this argument is not as strong for Sweden as it is internationally.

Some borrowers have also changed their behaviour in a way that may, hypothetically, have affected the term premium. One such group of borrowers is households with mortgages. In the mid-1990s around 8 per cent of outstanding mortgages had an interest rate refixing period that was three months or shorter. At present the corresponding share is 60 per cent and for new mortgages the share is in excess of 75 per cent.[6]

So there is reason to assume that in terms of exposure the banks are, in turn, demanding more short term financing, which may affect the size of the term premium.

Conclusions

Summing up, the weight of the arguments indicates that term premiums on both the Swedish and international bond markets are low at present. The Debt Office makes the assessment that the arguments for it being cheaper to borrow in instruments with short rather than long maturity have become weaker.

There is no doubt that term premiums vary sharply over time and it is not possible to rule out rising premiums in the coming years. However, the assessment of the Debt Office is that there are restraining factors, such as changes in the behaviour of market players, that are working in the direction of relatively low term premiums in the foreseeable future. One example of such changes can be greater matching of assets and liabilities on the part of insurance companies.

The Debt Office has not found sufficient evidence that the expected cost saving from borrowing at short maturities is sufficiently large in relation to the increased risk that short-term borrowing entails. The Debt Office therefore considers that there is reason to extend the maturity of the central government debt. Continued analysis will show whether a further extension of the maturity is justified over and above the proposal made here. In any case, the extension should be made in small steps. A sharp extension of the central government debt might disturb the balance between supply and demand in the market in a way that would make long rates rise. There is also uncertainty about how long-lasting the decrease in the risk premium will be.

The Debt Office proposes extending the maturity of the nominal krona debt and the foreign currency debt by three to six months. The design of the maturity intervals is presented below.

As already mentioned, the Debt Office uses interest rate swaps to shorten the maturity of the central government debt. One simple way of extending the maturity of the debt would therefore be to reduce the use of interest rate swaps. The Debt Office's outstanding interest rate swaps correspond to a nominal value of SEK 140 billion in SEK interest rate swaps and SEK 125 billion in interest rate swaps between the krona and foreign currencies. Historically the Debt Office

[5] *The Swedish Financial Market 2014, The Riksbank.*

[6] *Holmberg et al., "An analysis of the fixation period for Swedish mortgages", Economic Commentaries no 7, June 2015, The Riksbank.*

has carried out new swaps for some SEK 30–40 billion per year. This means that only approaching half of the bond borrowing has been swapped to short exposure, in part because the market has been judged to be too small to eliminate all long exposure.

The average daily turnover in the market for long interest rate swaps in kronor was SEK 34 billion in 2013.[7] In 2014 turnover fell to just under SEK 20 billion per day. The Debt Office has not received any indications that transactions carried out, or not carried out, by the Debt Office would be of crucial importance for swap interest rates or the liquidity of swap market. There is, of course, a close interplay between rates in the swap market and in the market for government bonds. Even if the Debt Office makes the assessment that less use of interest rate swaps will not have a major effect on the swap market, this interplay is yet another reason not to make excessive changes in the maturity of the krona debt.

In international markets the Debt Office is a small player, so there is no problem at all in extending the maturity of the foreign currency debt.

2 Broader maturity intervals

The maturity of the central government debt appears to be of less importance for the Government's borrowing costs than it used to be, making it less appropriate to steer the debt within a narrow interval. The Debt Office therefore proposes broadening the interval for the nominal krona debt and also introducing an interval for the maturity of the foreign currency debt.

Under this proposal, the following wording is proposed for the guidelines:

- The maturity of the nominal krona debt for instruments with maturities of up to twelve years is to be between 2.6 and 3.6 years.
- The maturity of the inflation-linked krona debt is to be between 6 and 9 years.
- The maturity of the foreign currency debt is to be between 0 and 1 year.

Since the proposal contains maturity intervals for all types of debt, the requirement in the current guidelines that the Debt Office has to set deviation intervals around the maturity benchmarks set by the Government for the various types of debt can be removed.

It can be worth noting that the intervals in the current guidelines are accommodated within the intervals proposed. So the changes do not require any transitional rules.

Background

The guidelines for 2011 were the first to contain a maturity interval, doing so for the inflation-linked krona debt. The interval was set at two years. The guidelines for 2012 broadened this interval to three years. At the same time a maturity interval of six months was also introduced for the nominal krona debt.

The previous system had been that the guidelines stipulated exact benchmarks (with one decimal point) towards which the maturity of the different types of debt was to be steered. The justification given for the changes was the difficulties associated with steering the maturity of the debt towards exact values. For example, it was difficult to parry unexpected deviations from the forecast of the borrowing requirement without needing to alter the guidelines.

In last year's proposed guidelines the Debt Office recommended the maturity measure of duration in preference to the previously used measure of average interest rate refixing period. Duration, as a measure, has the disadvantage that it is influenced by interest rate fluctuations, but the Debt Office made the assessment that the variation would not be greater than could be handled with a maturity interval of six months. If interest rates were to rise or fall sharply, the Debt Office also had the possibility of getting back to the Government with a proposal to adjust the interval.

At the start of 2015 interest rates fell sharply, and in February the Debt Office submitted a proposal to the Government to change the maturity interval of the nominal krona debt. The Government made a decision in line with the Debt Office's proposal and increased the interval from 2.3–2.8 years to 2.6–3.1 years.

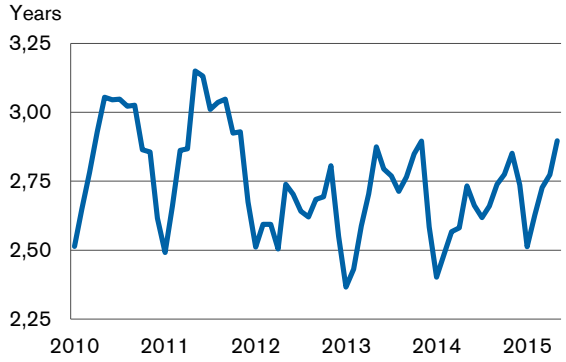
The purpose of having maturity intervals instead of exact benchmarks for the various types of debt is to create conditions for appropriate issue planning. An interval provides more scope to adjust borrowing if the borrowing requirement turns out to deviate from the forecast or if conditions on the swap market, for instance,

[7] *The Swedish Financial Market 2014, The Riksbank.*

change. This approach also avoids unnecessary transaction costs that might otherwise be incurred if derivative transactions are used to repeatedly extend or shorten maturity.

The size of the central government debt varies over the year. This is addressed through liquidity management and short-term borrowing, so maturity also varies over the year, see figure 3. However, the intervals set by the Government in the guidelines are to be seen as intervals for issue planning rather than as deviations intervals for actual outcomes. For that reason the present guidelines also state that there may be temporary deviations in the maturity of the various types of debt.

Figure 3 Maturity of nominal krona debt for maturities shorter than 12 years



Note: Maturity expressed as duration.

Discussion

The maturity of the central government debt is only one of many factors that affect the expected cost and risk in the debt. The Debt Office makes the assessment that the cost advantage of short-term borrowing is probably smaller than has been the case in the past. This makes aspects other than the choice of maturity more important for achieving the objective of cost minimisation taking account of risk. This applies, for example, to the possibility of meeting the demand for bonds of different maturities and promoting liquidity. If the maturity of the debt is no longer deemed to be as strongly linked to its cost, there are no strong reasons for steering maturity within as narrow an interval as before.

As mentioned, duration as a measure has the disadvantage of being affected by interest rate fluctuations. A broader interval provides greater scope in ongoing management to manage changes in duration on account of large interest rate fluctuations, resulting in more effective management of the debt.

The Debt Office intends to implement the proposed extension of the nominal krona debt in small steps. The pace will be affected by market conditions in both the bond market and the swap market. A narrow interval may mean that measures must be taken at an unfavourable point in time and will then risk being expensive. This also indicates that a broader interval may be appropriate.

The conditions for steering maturity are different for the different types of debt. By using swaps the Debt Office is able to steer the maturity of the foreign currency debt and, to some extent, also the nominal krona debt. That option is not available for the inflation-linked krona debt, whose maturity is determined solely by the distribution of outstanding loans. The control interval for the inflation-linked debt is therefore broader so as to provide scope for other considerations such as demand, liquidity and the desired term structure.

Since the choice of maturity is judged to be of less importance than in the past for the cost of the central government debt, it would therefore also be natural for the deliberations made concerning the steering of the maturity of the inflation-linked debt to also be applied to the other types of debt. The control interval should therefore be given by what borrowing in the types of debt should be like in order to promote a liquid and otherwise well-functioning market that attracts a broad investor base. This also means that the Debt Office will be less dependent on market conditions in the swap market, which may, in turn, contribute to the objective of cost minimisation.

The Debt Office therefore proposes broadening the interval for the nominal krona debt from the present six months to a full year.

The Debt Office also proposes steering the maturity of the foreign currency debt within an interval of one year. Once the use of interest rate swaps reduces, the maturity of the foreign currency debt will become more dependent on the maturity of individual bond issues compared with the present practice where each issue is routinely swapped to short rates. This justifies the maturity interval broadened.

As regards the inflation-linked krona debt no changes are proposed.

As before, the guidelines provide scope for temporary deviations in the maturities of the debt types from the intervals stated in the guidelines.

The overall assessment of the Debt Office is that it is appropriate for the maturity of the nominal krona debt for instruments with maturities of up to twelve years to be between 2.6 and 3.6 years. The maturity proposed for the foreign currency debt is between 0 and 1 year. As before, the maturity of the inflation-linked krona debt is to be between 6 and 9 years.

The Debt Office emphasises that the intention of the broader control intervals is not to adapt the maturity of the central government debt on the basis of assessments of present and future interest rates. That type of market positioning is always carried out outside regular debt management in accordance with the provisions laid down in the guidelines (points 30–32). Thus the reasons justifying the broader intervals are purely operational.

So the maturities proposed will not involve any change in the underlying borrowing or the policy for it. Instead the proposals capture the effects of less use of derivatives that are used to actively shorten the maturity.

3 Retail market borrowing

The Debt Office borrows not only in the institutional market but also from private individuals and other small investors who place money in lottery bonds and National Debt Savings.

Retail market borrowing has a long history and the reasons for conducting it have varied over time. In the 1980s retail market borrowing was subsidised in order to increase savings by Swedes, and this resulted in it making up almost 25 per cent of the central government debt at the end of the 1980s. Now all subsidies have been removed and the justification for borrowing in the retail market is to reduce the costs of the central government debt.

For several years the volumes borrowed in the retail market have been decreasing. At the end of 2010, 5.3 per cent of the central government debt was financed by the retail market while the share at the end of 2014 was 2.6 per cent. As a result of the lower volumes, the cost saving from borrowing in the retail market instead of the institutional market has decreased. In 2010 the saving was SEK 183 million, while it only reached SEK 71 million in 2014.

In 2015 interest rates fell sharply in the institutional market and for shorter maturities the Debt Office now gets paid to borrow money. Since interest rates in the retail market have not fallen to the same extent, the cost of borrowing in the retail market currently exceeds the cost of equivalent borrowing in the institutional market. According to the current guidelines, retail market borrowing is to contribute to reducing the costs of the central government debt.

This year's proposed guidelines do not contain any alterations that affect retail market borrowing. But if the borrowing cost in the retail market were to exceed the cost in the institutional market for a long period, it may eventually become necessary to review how the retail market borrowing is conducted. The Debt Office is following this development closely and will, if necessary, return to the matter in future proposed guidelines.

RIKSGÄLDEN
SWEDISH NATIONAL DEBT OFFICE

Besöksadress: Jakobsbergsgatan 13 • Postadress: SE-103 74 Stockholm • Telefon: 08 613 45 00
Fax: 08 21 21 63 • E-post: riksgalden@riksgalden.se • Internet: www.riksgalden.se