RIKSGÄLDEN
SWEDISH NATIONAL DEBT OFFICE

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Basis for evaluation

Central government debt management 2014

Basis for evaluation 2014

Objectives and evaluation

This introductory chapter describes the Debt Office's mandate and the framework for its management of the central government debt. It also discusses the conditions for evaluation. The overall objective for the management of the central government debt is to minimise the long-term cost while taking account of risk. The Debt Office has identified a number of intermediate objectives that support this overall objective but are easier to influence and measure.

1.1 Mandate

The Swedish National Debt Office (the Debt Office) borrows on behalf of the state principally by raising loans in the Swedish and international capital markets. The Debt Office finances deficits in the central government budget or amortises the central government debt when the central government budget shows a surplus.

In addition to handling surpluses and deficits in the central government budget, the Debt Office must also finance repayments of maturing loans. In practice this means refinancing previous deficits in the central government budget.

Buyers of bonds issued by the Debt Office are lending money to the Swedish State. Purchases are made through the Debt Office's primary dealers. The final investors may, for example, be pension funds, insurance companies, banks, investment funds and central banks. There are both Swedish and international investors. A small part of the debt is financed in the retail market, chiefly through lottery bonds.

1.2 Framework for management of central government debt

The Government chiefly directs the management of the central government debt through an annual *Decision on Guidelines for Central Government Debt Management*. This decision is based, in part, on the Debt Office's proposed guidelines, which are also presented each year. The Government's guidelines apply to the coming year and provide preliminary guidance for the subsequent three years.

These guidelines regulate the risks in the central government debt at a general level. They include targets for the interest rate refixing period of the debt and the distribution between nominal and inflation-linked krona debt and foreign-currency debt.

The guidelines also state, "The Debt Office has to establish internal guidelines based on the Government's guidelines. These decisions have to 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 benchmark and principles for market and debt maintenance." The Board of the Debt Office adopts these internal guidelines in the document *The Debt Office's Financial and Risk Policy*.

The overall objective for the management of the central government debt is to minimise the long-term costs while taking account of risk. The strategic trade-off between costs and risk is made in the guidelines decision and is stated with further precision in the Debt Office's Financial and Risk Policy. Put simply, the trade-off made is about choosing the risk level for the management of the debt. The costs of the debt are then determined by the prices prevailing in markets each time funds are borrowed.

The Debt Office's main contribution to reducing these costs is to establish an attractive market for Swedish government securities that is characterised by good liquidity and a broad investor base. This creates conditions for strong demand for Swedish government securities, leading to lower interest costs. At the same time the funding risk decreases since there are many lenders that are prepared to lend to the Swedish State.

At the margin the Debt Office can also influence costs by, for example, making use of favourable pricing in the market. In addition, the Debt Office monitors changes in risk arising from price movements in the market in order to avoid excessive risks.

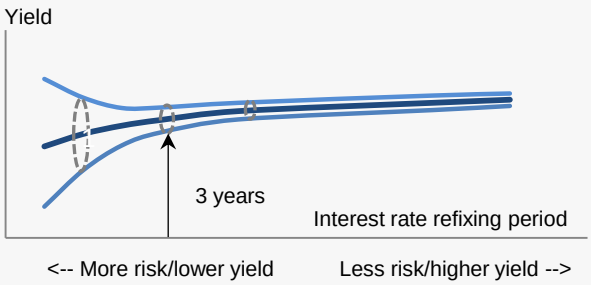
Background to the current guidelines

Interest rate refixing period

The choice of interest rate refixing period is primarily governed by the level of risk that is appropriate in the portfolio, but it must also be adapted to practical circumstances. One example is the need to maintain a sufficient volume of borrowing in government bonds to ensure good liquidity in these bonds. Another example is the possibility of using interest rate swaps in order to adjust the interest rate refixing period of different types of debt.

The analysis behind the choice of interest rate refixing period is based on the assumption that, over time, it is cheaper to borrow in instruments with short rather than long maturities. On the other hand, a short interest rate refixing period means higher risk, since interest costs are expected to vary more if the interest rate terms are altered frequently.

Previous calculations based on historical data have shown that an interest rate refixing period of around three years gives a reasonable trade-off between cost and risk. Up to about three years risk decreases distinctly with the interest rate refixing period. Thereafter the effect of reduced risk declines. Extending the interest rate refixing period beyond three years gives a limited effect on risk but increases the expected cost. See the outline illustration below.



The curve in the middle of the figure corresponds to the expected interest rate as a function of the interest rate refixing period. The upper and lower interest rate curves represent the highest and lowest interest rates that an issuer can expect to pay (with a certain level of probability). The difference between them gives a picture of the interest rate refixing risk for a given interest rate refixing period.

Shares in different types of debt

The purpose of spreading the central government debt across different types of debt is to reduce the risks.

Inflation-linked debt

Borrowing in inflation-linked bonds provides a broader investor base and can be used to reduce pressure on the market for (non inflation-linked) government bonds when the borrowing requirement is large. The starting point for the size of the inflation-linked debt has been that the stock must be sufficiently large to maintain good liquidity in inflation-linked bonds. However, the stock should not be so large that it crowds out borrowing in government bonds, thereby resulting in poorer liquidity in that market.

Foreign currency debt

Exposure in foreign currency has also been justified on grounds of diversification. The possibility of borrowing in foreign currency contributes to a low funding risk in the management of the central government debt. In the international capital market the Debt Office is able to borrow large sums in a short space of time. Even during periods when the borrowing requirement is small, there is reason to retain some borrowing in that market so as to be able to borrow there when needed.

However, the guidelines steer *exposure* in foreign currency and not the size of this borrowing. A large part of the present foreign currency debt consists of krona borrowing that has been changed into foreign currency exposure using swaps, see chapter 9.

In recent years the Debt Office has carried out a review of the size of the foreign currency share. This analysis has shown that foreign currency exposure increases the risk (cost variation) in the debt. However, the Debt Office has not been able to demonstrate that a particular share of foreign currency can reduce the expected long-term cost of the debt. In the guidelines for 2015 the Government has therefore decided on a gradual reduction of the share of foreign currency exposure.

Guidelines for 2014

According to the Guidelines for 2014 the following applies to the composition of the central government debt:[1]

- The foreign currency debt is to be 15 per cent.
- The inflation-linked krona debt is to be 25 per cent of the debt in the long term.
- The remaining share of 60 per cent is to consist of nominal krona debt.

The interest rate refixing period of the different types of debt is to be steered towards: [2]

- Foreign currency debt: 0.125 years
- Inflation-linked krona debt: 7–10 years
- Nominal krona debt:

  Maturities up to 12 years:
  2.7–3.2 years

  Maturities over 12 years:
  The long-term benchmark for the outstanding volume is SEK 70 billion.

The Debt Office is to take account of the refinancing risk in the management of the central government debt. The mandate for positions in the krona exchange rate is SEK 7.5 billion.

It should be emphasised that the Guidelines refer to exposure in the central government debt and not the maturities at which the Debt Office actually borrows. The Debt Office uses an 'overlay portfolio' of derivatives to adjust its exposure, see chapter 9.

Evaluation and intermediate objectives

It is difficult to evaluate to what extent the overall objective is being fulfilled. There is no quantitative objective for costs and there is no natural benchmark for comparisons either. It is not easy to make comparisons with other sovereign borrowers since the conditions for managing central government debt are not alike. There are, for example, organisational differences and differences in size and funding requirement as well as in whether states have their own central bank and currency.

The relevant starting point for evaluation should be whether the decisions taken were the best possible decisions in the light of the information available at the time of each decision.

To make the task of evaluation manageable, the strategy for managing central government debt can be described in terms of its overall objective and intermediate objectives. The term intermediate objectives refer to objectives that support this overall objective but are easier to influence and measure.

Intermediate objectives

The main intermediate objectives are:

- a liquid market in government securities with well-functioning infrastructure
- transparency and predictability
- clear and open communication with investors and primary dealers
- good counterparty and investor contacts
- a broad investor base
- derivative positions in foreign currency in order to achieve lower costs or risks.

The Debt Office follows a number of strategies intended to achieve the objectives set out above. Each year the Debt Office measures confidence in its debt management. This survey gives a picture of how well the intermediate objectives are being fulfilled. In general the Debt Offices is given a good grade and stands up well in comparison with other state borrowers.

The survey also shows how counterparties and investors rate the importance of the Debt Office's strategies and activities. The intermediate objectives are a good match with the factors assessed as most important by primary dealers and investors.

The Debt Office's management strategies are described in more detail in the next chapter. The results of the latest questionnaire are also presented there.

The result of positions in foreign currency is presented separately in chapter 10.

[1] *The shares of the debt are calculated using a debt measure expressed as aggregate cash flows, i.e. future coupon payments are included.*

[2] *The maturity benchmark does not discount cash flows.*

2 Strategies for debt management

The Debt Office's strategies for debt management are discussed below. The strategies are intended to achieve the intermediate objectives discussed in the previous chapter.

The Debt Office's management strategies can be divided up into two categories. The first covers strategies intended to improve the liquidity and infrastructure in the government securities market. The second concerns strategies intended to achieve the objectives of transparency, predictability and clear communication.

Since 2004 TNS Sifo Prospera (called Prospera below) conducts a confidence survey among the Debt Office's primary dealers and Swedish and international investors in Swedish government securities about how they view the Debt Office's borrowing activities. The purpose of the measurement is to provide a picture of how counterparties and investors rate the importance of the Debt Office's strategies. The results of the survey also show how well they think that the Debt Office has succeeded in fulfilling its strategies to minimise its costs in the long term.

2.1 High confidence in the Debt Office

The latest survey was conducted between 12 November and 22 December 2014. In total, all 8 primary dealers and 53 investors were interviewed. The response rate was 91 per cent.

Confidence in the Debt Office's borrowing activities remains high. The Swedish investors gave a higher grade than in the preceding year. As before, the Debt Office is given a high grade for transparency compared with other debt offices.

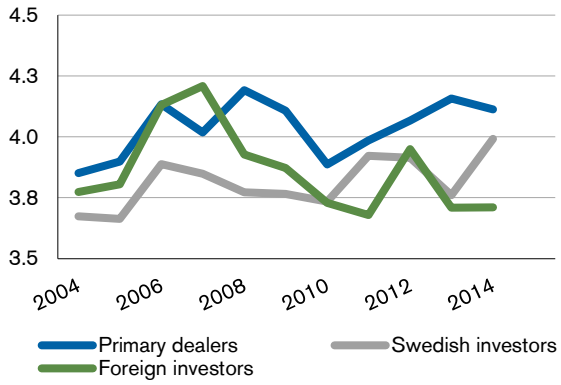
Prospera weighs together the grades for the various factors included in the measurement and the investors' rating of the importance of the factors. In principle the assessment made by international investors is unchanged from the preceding year and the grade given is still high.

Compared with 2013 the primary dealers overall impression of the Debt Office is slightly poorer than previously. Prospera summarises the result of the survey in the following way:

"The rating among primary dealers and Swedish investors can be characterised as very high, 4.1 and 4.0 respectively. Among international investors the rating is lower, but can still be described as good, 3.7."

The figure shows the development of the weighted assessment over time. A grade of 4 is characterised by Prospera as 'excellent' and a grade of 3.5 as 'quite good'.

Figure 1 Weighted assessment



The following table shows the main strengths of the Debt Office as regards its borrowing as such ranked by score. The grades used are the weighted grades from primary dealers and Swedish and international investors.

Table 1 The Debt Office's main strengths

Strengths	Grade
Communication on borrowing requirement and financing	4.3
Market maintenance through repos in government securities	4.2
Good information about volumes and other conditions for government bonds	4.2
Good information about volumes and other conditions for T-bills	4.1
Clear and consistent behaviour	4.0

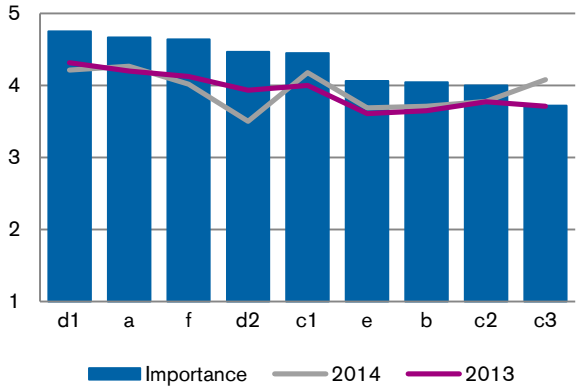
Table 1 shows the market's requirements ranked by grade. Here requirements mean the factors that primary dealers and investors think that it is important that the Debt Office is good at. Importance is graded on the scale 1–5.

Table 2 The market's most important requirements

Requirements	Grade
Good market maintenance through repos in government securities	4.8
Communication on central government borrowing requirement and financing	4.7
Clear and consistent behaviour	4.6
Good market maintenance through exchanges of inflation-linked bonds	4.5
Good information about volumes and other conditions for government securities	4.4

The same factors figure in both of the above tables, i.e. the factors that the market assesses as the most important are also the ones that the Debt Office is given a high score for, see figure 2.

Figure 2 Importance and grade



Communication
- **a** Borrowing requirement/ financing
- **b** Good contact

Borrowing
- **c1** Government bonds
- **c2** Inflation-linked bonds
- **c3** T-bills

Market maintenance
- **d1** Repos in government securities
- **d2** Byten av realobligationer

General
- **e** Market wishes
- **f** Clear and concequent behaviour

Apart from a slight fall in 2010 the grades are close to 4.0 over time. Since measurements began in 2004 the weighted grades have varied between 3.8 and 4.1. The variations depend in part on variations in the sample of international investors from year to year.

2.2 Strategies for liquidity and infrastructure

Normally the demand for government securities is based on their low credit risk and good liquidity. The low credit risk follows from the fact that they are securities issued by the state. In addition, Sweden has strong central government finances, its own currency and its own central bank. Their attractiveness is also due to a great extent to the liquidity that can be offered. This refers mainly to the possibility for investors to sell or buy large volumes without any appreciable effect on price.

The Debt Office works actively to promote the liquidity and infrastructure in the government bond market by:

- Conducting active market and debt maintenance, with exchanges and repo commitments
- concentrating borrowing to a limited number of benchmark bonds for improved liquidity
- maintaining many effective sales channels with the aid of a system of primary dealers
- distributing the central government debt across different types of instruments and maturities so as to limit the refinancing risk
- seeking a broad investor base

Market and debt maintenance

The Debt Office conducts active market and debt maintenance by exchanges and repo facilities to reduce the risks for counterparties and support liquidity. Market participants are given the possibility to repo government bonds from the Debt Office.[3] The Debt Office also offers exchanges of government securities with low liquidity for more liquid maturities. New bonds are primarily introduced using exchanges so that the new loans will quickly gain good liquidity.

As is seen in figure 2 the grades in the 2014 confidence survey are poorer for the factor *good market maintenance through exchanges of inflation-linked bonds* than in 2013. Chapter 6.3 discusses in more detail work during the year on market maintenance in the inflation-linked market.

This year, the participants in the confidence survey once again rate repos in government bonds as the single most important factor in their assessments. And here the Debt Office also receives an excellent grade of 4.2. Getting such a high grade for the factor rated as most important is satisfactory.

The Debt Office is given a higher rating by primary dealers than in the preceding year with respect to information about volumes and other conditions for

[3] *Repoing a government security means buying it temporarily while agreeing to sell the* same security back a short *time later.*

government bonds. The weighted rating is a grade of 4.2.

A small number of benchmark bonds

Borrowing in government bonds and inflation-linked bonds is concentrated to a small number of benchmark bonds. This is done so that the outstanding volume of each bond will be large enough to ensure good liquidity.

Government bonds are the Debt Office's most important instrument. When the borrowing requirement is small, issues of government bonds are given priority ahead of other borrowing so as to retain good liquidity in the government bond market.

The Debt Office tries to maintain a relatively even maturity profile. A range of bonds with both short and long maturities makes the Swedish market attractive to different types of investors. At the same this limits the refinancing risk since only a limited part of the central government debt needs to be refinanced each individual year.

Effective sales channels

The Debt Office endeavors to maintain many effective sales channels. A system of primary dealers is a guarantee for well-functioning infrastructure in the Swedish government bond market. This also contributes to good liquidity and good opportunities of borrowing large volumes in a possible crisis situation in the future.

Evaluation of liquidity

According to Prospera's measurement, the liquidity of government bonds continues to be good. Swedish investors regard liquidity and price transparency as good, giving a grade of 3.7. International investors give the grade of 3.5 and primary dealers the grade of 4.0. However, as pointed out previously the Debt Office can only influence liquidity indirectly.

Liquidity in the secondary market for T-bills has improved according to Swedish investors, but is still low with a grade of 2.4. The outstanding stock has decreased by more than half in five years, and investors are increasingly using other instruments to adjust their exposure. Since the Debt Office also has a limited undertaking for repos in T-bills, this grade is not surprising. The Debt Office follows the development of liquidity for T-bills and has an ongoing dialogue with market participants so as to be able, if possible, to support liquidity.

The liquidity of inflation-linked bonds is also regarded as poorer than liquidity in the market for government bonds. The grade given is about the same as for T-bills. Swedish investors give the grade of 2.6, which is slightly better than for T-bills.

Inflation-linked bonds are not an instrument with the same liquidity as government bonds. Basically this is because investors do not have the same interest in active trading in inflation-linked bonds and there is no developed derivative trading in this market either.

The Debt Office's assessment is that liquidity is better than in the market for T-bills and is relatively good from an international perspective. The Debt Office makes special efforts to support liquidity through its undertaking to make on tap exchanges between different maturities of inflation-linked bonds.

2.3 Predictability, openness and clear communication

To create an attractive market for government securities, these securities are managed with openness, transparency and predictability. This means that all communication with the market should be as consistent, predictable and open as possible.

Good awareness of coming borrowing and of what policy the Debt Office has for handling external changes reduces the risk for counterparties and investors. Lower risk contributes to increased interest in Swedish government securities.

The Debt Office is working to achieve the objectives of openness, clarity and predictability by:

- maintaining good investor relations
- planning borrowing for the next few years on the basis of forecasts of the net borrowing requirement
- handling borrowing in a consistent way in line with clear principles
- publishing regular forecasts of the net borrowing requirement and borrowing
- trying to maintain clear communication both in written documents and in contacts with investors and counterparties
- providing detailed information about borrowing and the central government debt on its website: riksgalden.se.

Investor relations

The Debt Office tries to maintain good counterparty and investor relations and a broad investor base. A broad investor base results in lower interest costs through strong demand for government securities and lower risk since there are many lenders who are prepared to lend to the Swedish State.

Good investor relations are part of the long-term sales strategy. The primary dealers have the most frequent and active role in sales and in communicating with investors. It is they who maintain the ongoing direct contact with investors and provide them with information about and analysis of the issuing activities of the Debt Office. However, this is not sufficient. The Debt Office and investors cannot rely solely on the information provided via the primary dealers.

It is important that investors have the possibility of a direct dialogue with the Debt Office. The Debt Office works continuously on its dialogue with Swedish and international counterparties.

Its communication with counterparties and investors takes place both direct from the Debt Office via its website and in meetings with investors and counterparties.

In 2014 trips were made to foreign investors in Europe. The Debt Office also regularly provides speakers at investor seminars in Sweden and abroad.

As previously mentioned, the Debt Office has a policy of predictability in its borrowing. At the same time, a certain degree of flexibility is needed to respond to changes in market conditions. This requires a balance between predictability and flexibility.

Evaluation

Contact with investors is given the grade of 3.6 and is still an area where there is a potential for improvement. This year's survey showed that investors are interested in more personal contact with representatives of the Debt Office. Personal meetings are the form preferred by investors. The frequency of contacts is given as once a year or more often. Among foreign investors about a quarter reply that at present they do not have direct contact with the Debt Office but that they wish to have such contact.

In contrast, interest in participating in large investor meetings, when the Debt Office invites several investors at one and the same time, deceased compared with the previous year. Among Swedish investors only 55 per cent have a great interest in investor meetings, compared with 94 per cent in the preceding year. The corresponding figure for foreign investors is 72 per cent and is largely in line with the preceding year.

To create conditions for well-functioning and cost-effective borrowing it is important to respond to the interest in information and contacts that investors consider needed. The Debt Office meets Swedish and international investors at both personal meetings and larger gatherings such as conferences or investor meetings when new forecasts are presented.

Swedish investors think that the Debt Office should be more responsive to the wishes of the market and would like more information about T-bills. Foreign investors would like more information about inflation-linked bonds.

By prioritising a continuous dialogue with primary dealers and investors, it ought to be possible to improve investor contacts and maintain reasonable flexibility with responsiveness to changes in market conditions.

Some temporary flexibility is both possible and important, but excessive compliance with fluctuations in market interest could result in deviations from the Debt Office's strategy in the long term.

Clear communication

The report *Central government borrowing – forecast and analysis* is an important communication channel in the strategy of communicating openly and transparently to all market participants at the same time. This report is published three times a year and describes in detail how the Debt Office intends to finance the central government debt in the coming two years.

The plan for financing is based, in part, on a forecast of the net central government borrowing requirement and data for the existing central government debt. On this basis the Debt Office adapts borrowing in the coming two years so that the conditions in the guidelines and the internal risk policy are fulfilled. The issue plan and the forecast for the net borrowing requirement normally remain in place until the next report is published.

Interactive service on riksgalden.se
During the year the Debt Office has continued work to increase the information about debt structure and borrowing on its website. It is now possible to gather data and information interactively on the Debt Office's website. Users can themselves choose the information they want as print-outs or via Excel.

According to the confidence survey, almost half, some 47 per cent, of primary dealers have used this service. And among investors the corresponding figure is just under 50 per cent, a distinct increase on the preceding year, when the share was 15 per cent.

The impression among users is that the service is quite good or very good. It is gratifying to see that the interactive service has been given such a positive reception. It has also emerged that there is interest in more real-time information. Such information (with daily updates) is now also available regarding the supply of securities issued.

Evaluation
The Debt Office's borrowing activities are also rated highly in this year's survey for their transparency compared with other debt offices. As in previous years, information about the central government borrowing requirement and financing is considered to be most important alongside the repo undertaking. The grade for communication about borrowing requirement and financing is about 4.3, i.e. a very good grade. Communication about borrowing and debt management is a central part of the strategy for creating conditions for borrowing at as low a cost as possible. So this grade is therefore a good indication of fulfilment of this objective.

The Debt Office's website is still the most important information channel for information about the central government borrowing requirement and financing, auction terms and auction outcomes. 100 per cent of the primary dealers use the Debt Office website. Among Swedish investors the corresponding figure is about 94 per cent, compared with 78 per cent in the preceding year, and among international investors it is 55 per cent. Almost 100 per cent of website visitors find that the information needed is available there.

3 Cost and risk

This chapter presents some of the measures used by the Debt Office to calculate the cost of the management of the central government debt. It also discusses a number of risks and how they are handled by the Debt Office.

The Government's guidelines for the management of central government debt make a strategic trade-off between cost and risk. These guidelines set out the overall strategy in terms of a distribution between different types of instruments and maturities. The Debt Office continuously evaluates the overall strategy in its annual guideline proposals.

The evaluation of cost and risk presented in this report is made in the context of the guidelines in place in 2014.

Since the Debt Office is the dominant state borrower in Swedish kronor, it is difficult to make a quantitative evaluation of whether the borrowing strategy implemented was better than other alternative strategies. The Debt Office's dominant position means that prices on these markets are affected by its choice of borrowing strategy. Therefore the costs can only be measured at an overall level. It is not possible to carry out a traditional evaluation against a benchmark or index. The same applies to financial risks in terms of cost variation. The Debt Office also takes account of other risks in the management of central government debt, and they are evaluated and measured in qualitative and quantitative terms, see section 3.2.

3.1 Costs

In this section the cost of the central government debt is presented using three different measures:

- interest payments
- average issue yield
- period cost

Interest payments show how much is paid in a single year. This measure only reflects cash flow and is influenced by temporary effects such as exchanges of bonds.

The average issue yield is calculated by weighting the issue yield for outstanding instruments by their nominal amount. This measure shows the average interest rate at which loans currently outstanding have been raised. The interest rates are reported separately for different kinds of debt since the interest rates are of different types and therefore not directly comparable. The issue yield for the inflation-linked debt is a real interest rate that does not include compensation for inflation. For the foreign currency debt the interest rate is in foreign currency. The effects of buybacks and exchanges are not included in the measure.

The period cost shows the cost in a uniform way for all types of debt. This measure takes account of the entire cost irrespective of when the payments are made. The cost is spread evenly over the term of the loan and includes inflation and exchange rate effects. This measure gives a better picture of the long-term cost of than the other two measures do.

It is worth noting that, irrespective of measure, the calculations cannot be used to determine whether one type of debt is cheaper than another since the maturities are different. For such a comparison to be fair, the analysis must be carried out for the same maturity. In this report, cost is reported given the actual composition of the debt.

Interest payments on the central government debt

The interest payments on the central government debt were SEK 3.2 billion in 2014. This is almost SEK 19 billion lower than the appropriation and a reduction of more than SEK 13 billion compared with 2013. In current prices interest expenditure has not been as low since the mid-1970s.

The main explanation of the low interest payments is temporary factors in the form of higher premiums on issues of nominal bonds. The premiums arise when the Debt Office issues bonds with coupons in excess of current market rates. In 2014 this applied to SGB 1047, for example, which has a coupon of 5 per cent. For this bond alone, issues

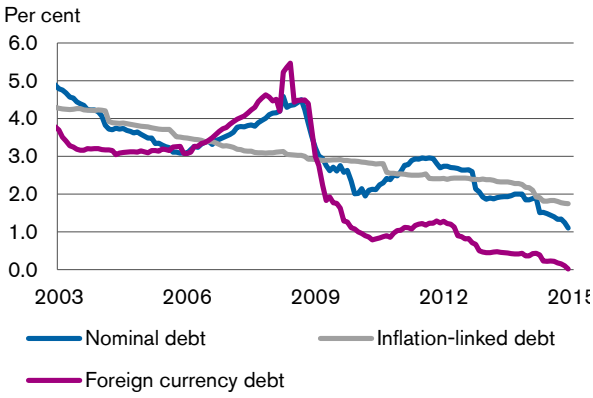
gave rise to premiums of more than SEK 9 billion. In addition the Debt Office has realised currency gains that have, in total, helped to reduce central government interest payments by more than SEK 5 billion in 2014.

Low market rates as a result of the protracted recession in the world economy have also gradually made their contribution to reducing central government interest expenditure. Firstly, the low interest rates result in lower payments on interest rate swaps. Secondly, previously issued bonds with higher coupon rates are gradually replaced by new low-coupon bonds.

Average issue yield

The average issue yield was 1.1 per cent on 31 December 2014 for the nominal krona debt. This was 0.8 percentage points lower than at the end of 2013.

Figure 3 Average issue yield



The average issue yield for the foreign currency debt was zero per cent on 31 December 2014. Compared with the same day a year previously this meant that the average yield had fallen by about 0.4 percentage points.

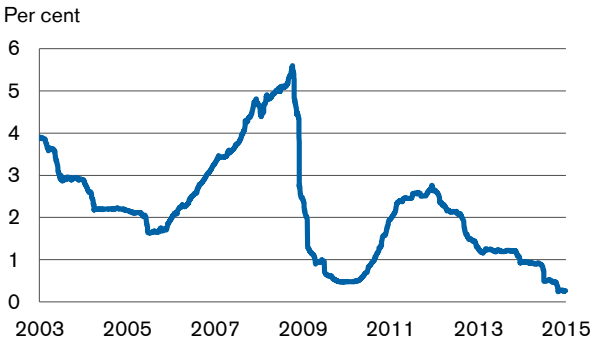
For the inflation-linked debt the average real issue yield was 1.75 per cent on 31 December 2014. This was 0.4 percentage points lower than on the same day a year previously.

The real yield does not contain any inflation compensation and therefore cannot be compared directly with the nominal yield in the figure. The fact that, despite this, the yield is higher than for the nominal krona debt is partly explained by the longer interest-rate refixing period.

The long interest rate refixing period means that the inflation-linked debt is turned over slowly. The average issue yield on the inflation-linked debt is influenced more than the corresponding yield on the nominal debt by loans raised in a situation with higher interest rates. The decline in market interest rates has therefore had a faster impact on the yield on the nominal krona debt. A further aspect is that over time long rates can be expected to be higher than short rates.

In addition to bonds, the nominal krona debt also includes T-bills and short instruments in liquidity management. Moreover, the Debt Office uses interest rate swaps to shorten the interest rate refixing period. A large part of the nominal krona debt is therefore exposed to short interest rates. The following figure shows the development of the three-month inter-bank rate Stibor. Stibor is the floating rate that the Debt Office pays in swaps.

Figure 4 Three-month Stibor



Low short-maturity interest rates have helped to keep the interest rate for the nominal krona debt down. In 2014 the Stibor was 0.66 per cent on average. In the past ten years the average has been clearly higher, 2.12 per cent.

The average issue yield for the foreign currency debt was lower than for other types of debt, partly because its maturity is much shorter. It should be noted that exchange rate changes, which can have a considerable effect on cost, are not included in the calculation. So the average issue yield for the foreign currency debt is not directly comparable with the average issue yield for the krona debt.

Figure 5 Average issue yield per instrument

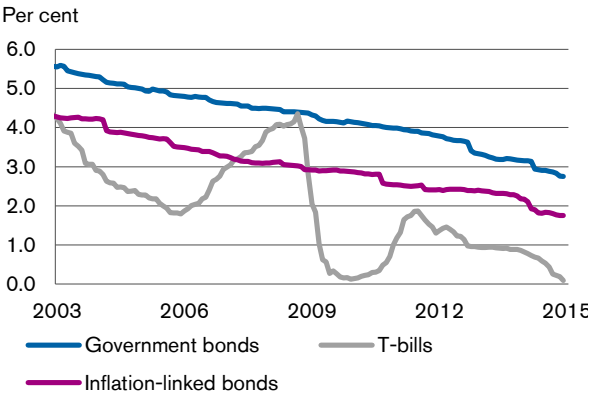


Figure 5 shows the development of the average issue yield for various government securities. Here it is seen that the issue yield on short T-bills are lower than bond yields. The yield on T-bills follows the development of the Stibor in figure 4. The real issue yield for inflation-linked bonds is lower than the issue yield on government bonds since inflation compensation is not included.**Period cost**

In last year's basis for evaluation of the central government debt, the Debt Office presented the result of a new cost measure for the first time. The new cost measure distributes the costs of different types of instrument over time in a consistent way, so that a better comparison can be made than using the average issue yield. Work is under way on incorporating all Debt Office instruments and refining the model. At present the cost can be calculated for bonds and bills in both Swedish kronor and foreign currencies, inflation-linked bonds, commercial paper, interest rate swaps in both Swedish kronor and foreign currencies and other types of swaps.

Certain difficulties are associated with measuring the period cost. A number of the instruments used by the Debt Office in the management of the central government debt, such as inflation-linked bonds and instruments included in the foreign currency debt, give rise to future cash flows that are unknown today.

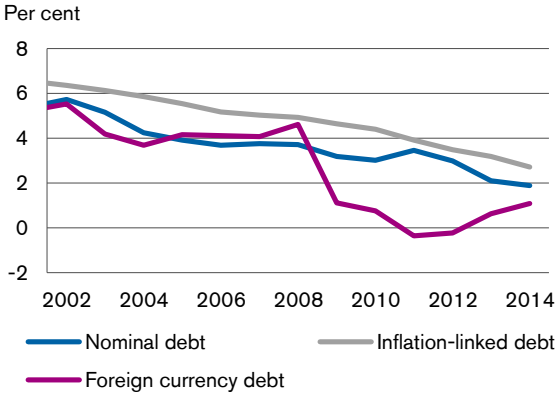
The method therefore means that assumptions must be made about future cash flows that are unknown. To calculate the cost, assumptions are needed about, for example, future inflation and exchange rates. Over time these assumptions are replaced with actual outcome, which means that the calculated cost needs to be revised. Buybacks and exchanges give rise to realised outcomes that replace previous assumptions that outstanding instruments will run to maturity.

The Debt Office does not make its own forecasts of the development of interest rates or exchange rates in Swedish kronor since this could risk harming the confidence of investors. The Debt Office is a major participant in the Swedish interest rate and currency market and, as such, its actions can affect pricing. Instead, the assumptions made by the Debt Office are mainly based on the expectations implied by current market prices. This is a way of obtaining consistent assumptions without building in cost differences between different types of instruments in advance.

Inflation, measured as the change in the CPI, is therefore assumed to follow the implicit inflation assumptions that can be identified from the pricing of inflation-linked bonds in relation to government bonds, known as 'break-even inflation'. For exchange rates, cut-off rates are used.

The following figure shows the annual cost of the nominal and inflation-linked krona debt since 2002 given these assumptions.

Figure 6 Period cost for nominal and inflation-linked krona debt and foreign currency debt[4]



The cost of the nominal krona debt was 1.9 per cent in 2014. This is a historically low figure that is because instruments issued at the low interest rates of recent years make up an increasing share of the total debt.

The cost of the inflation-linked debt is estimated at 2.7 per cent in 2014. This cost is higher, partly because the interest rate refixing period is longer than in the nominal krona debt and the turnover of instruments is therefore lower. The cost of the inflation-lined debt is also historically low.

[4] *Here the foreign currency debt includes foreign currency bonds and the legs of swaps that are denominated in foreign currency.*

For the foreign currency debt the cost is estimated at 1.1 per cent. Unlike the average issue yield, exchange rate effects are included here.

Figure 7 Period cost by type of instrument

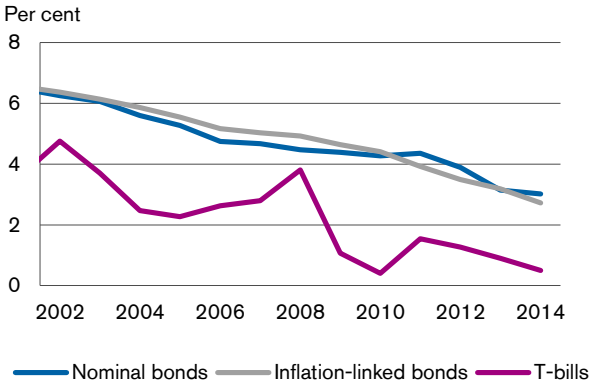


Figure 7 shows the period cost per type of government security. The cost measured in this way follows the development of the average issue yield well. The biggest difference is that the period cost of inflation-linked instruments includes compensation for inflation.

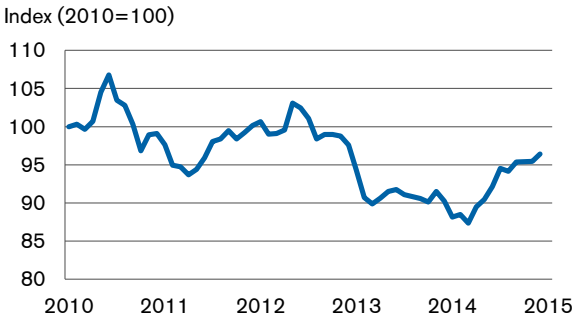
Exchange rates and inflation

The krona exchange rate is of great importance for the cost of the foreign currency debt. Inflation measured as the CPI affects the cost of the inflation-linked debt. The development of these factors in 2014 is shown below.

Exchange rates

In 2014 the krona weakened against the currencies included in the currency benchmark. This contributed to higher payments in Swedish kronor. However, viewed over recent years the krona has strengthened slightly.

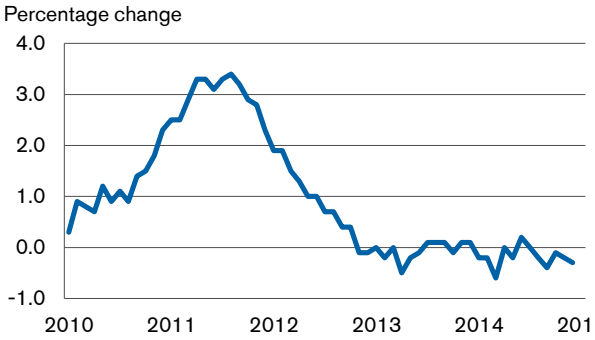
Figure 8 Development of the krona in relation to the benchmark



A large part of the foreign currency exposure in the debt is created by swapping krona borrowing for foreign currency, see chapter 9. Since the maturity of the swaps is relatively long, it is primarily the future krona exchange rate that decides what the final cost will be. For the part that comes from foreign currency borrowing the maturity is shorter and movements in the krona exchange rate have a faster impact on costs.

CPI

Figure 9 Change in CPI



Inflation measured as the annual change in the CPI was -0.3 per cent in December 2014. Inflation was low throughout the year, which meant that the inflation compensation the Debt Office had to pay to holders of inflation-linked bonds was lower.

3.2 Risks

Steering according to guidelines

According to the guidelines for the management of the central government debt in 2014, the interest rate refixing period for the nominal krona debt, consisting of instruments with a maturity up to and including 12 years, was to be between 2.7 and 3.2 years.

For nominal instruments with a maturity in excess of twelve years the Government decided that the long-term benchmark for the outstanding volume is to stay at SEK 70 billion.

The maturity of the inflation-linked krona debt was to be between seven and ten years, while the maturity of foreign currency debt was to be 0.125 years.

The interest rate refixing period of the nominal krona debt varies as a result of fluctuations in state payments. The interval in the guidelines does not refer to the outcome on a single day or month. Instead the interval steers the average level that the Debt Office aims at in its issue planning. On days with a large deficit, more is borrowed at short maturities in liquidity management and vice versa.

Seen over the year as a whole, the average interest rate refixing period was 2.8 years. This is slightly closer to the lower boundary, but the interest rate refixing period has remained within the interval during all the months of the year.

The average interest rate refixing period for the inflation-linked krona debt was 7.7 years, while the average interest rate refixing period for the foreign currency debt was 0.1 years.

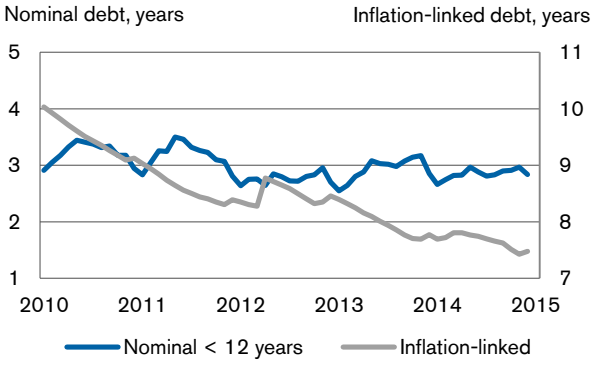
The conditions for steering the interest rate refixing period are different for the different types of debt. By using derivatives the Debt Office has considerable possibilities of steering the interest rate refixing period of the foreign currency debt. The interest rate refixing period of the foreign currency debt is therefore very close to the benchmark.

The interest rate refixing period of the nominal krona debt can be steered to some extent using derivatives by varying the volume of interest rate swaps.

However, in the case of the inflation-linked debt the Debt Office cannot use derivatives to adjust the interest rate refixing period. The interest rate refixing period is determined by the distribution between the outstanding bonds and is changed when loans mature, for example.

Figure 10 shows the interest rate refixing period for the inflation-linked debt and the nominal krona debt with maturities up to 12 years.

Figure 10 Interest rate refixing period

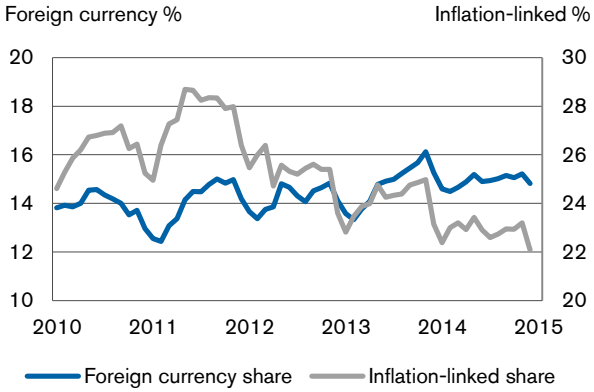


Debt shares

For 2014 the Government decided that foreign currency debt would account for 15 per cent of the central government debt. The share of inflation linked debt was to be 25 per cent in the long term, and the remaining 60 per cent was to be nominal krona debt.

During the year these three types of debt stayed relatively close to the shares set in the guidelines. On average, the inflation-linked krona debt was 22.9 per cent of the debt. The share of inflation-linked krona debt is hard to steer, partly because the share is affected by the size of the central government debt. For a more detailed description of the Debt Office's view of how the inflation-linked debt will reach the share set in the Debt Office's guidelines, see section 6.2. The foreign currency debt was 14.9 per cent of the debt on average and was kept within the control interval of ± 2 percentage points.

Figure 11 Debt shares



Refinancing risks

The refinancing risk means the risk that loans reaching maturity can only be replaced with new loans at very high costs or, in the extreme case, cannot be refinanced at all.

This risk should be distinguished from the liquidity risk (or financing risk) that a loan reaching maturity cannot be paid or can only be paid at a very high cost.

When a bond matures it is comparable with any other state payment whatsoever. A bond that matures does not need to be financed by issuing another bond. Moreover, the sum that is due for payment is the result of borrowing over a long period and is therefore much larger than can be raised in a single bond issue.

The net amount of daily state payments varies and can total to SEK 100 billion on some days. The liquidity risk relates to the possibility of handling payments and not to the conditions for issuing long-term instruments such as bonds.

In contrast, the refinancing risk relates to the possibility of issuing bonds in the longer term so that the maturity and the maturity profile can be

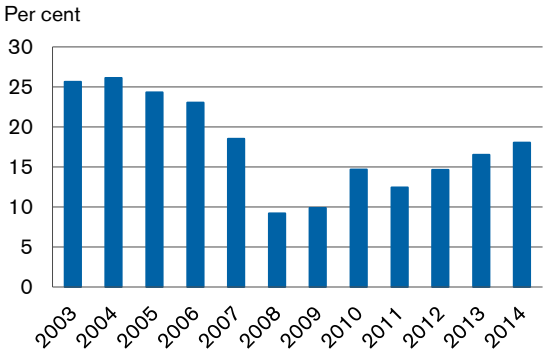
maintained. All else being equal, the debt becomes a year shorter each year. If the debt becomes too short in the longer term, the annual borrowing requirement rises.

The ways in which the Debt Office limits the risks include trying to maintain an even maturity profile for government and inflation-linked bonds and contributing to the establishment of a well-functioning market in government securities.

With long-term issue planning and small issue volumes at regular auctions, refinancing is spread over a long period of time and old loans have already been replaced to a great extent by new bond loans when they mature.

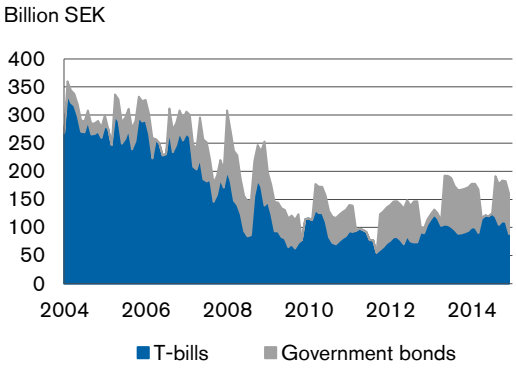
Unlike many other state borrowers the Debt Office was able to draw down the share of short-term financing when the borrowing requirement increased during the financial crisis in 2009. The following figure shows how large a part of the debt is financed in the money market. This share has decreased from about 25 per cent before the crisis to just less than 20 per cent.

Figure 12 Share of debt financed in the money market



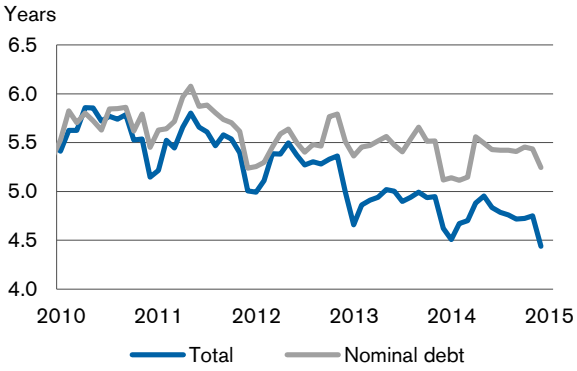
Compared with before the crisis, there has been a marked reduction in borrowing in T-bills. This has contributed to the poorer functioning of the market for T-bills today. The following figure shows how the supply of short government securities has decreased.

Figure 13 Stock of government securities with a maturity of up to one year



The average maturity of the debt until the loans become due for payment gives a picture of the refinancing risk. If the loans are spread over a long maturity, this reduces the share that must be refinanced every year. But the average maturity does not show how even the distribution is. Individual very long loans can make the average maturity longer without a reduction of the refinancing risk.

Figure 14 Maturity excluding derivatives

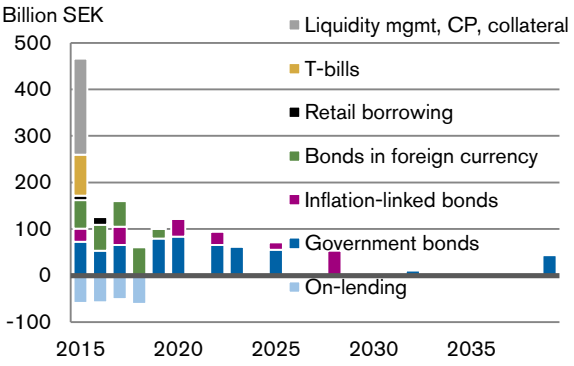


The average maturity was high in conjunction with the issue of a 30-year bond by the Debt Office in 2009. At the end of 2014 the average outstanding maturity was 4.4 years for the whole of the central government debt and 5.2 years for the nominal krona debt.

The maturity profile of the debt gives a better picture of the shape of the distribution between different outstanding maturities.

Figure 15 shows the size of the sums maturing in each individual year given the outstanding debt at the end of 2014. The figure also shows assets that mature in the form of claims on the Riksbank. These claims match the foreign currency loans to a great extent.

Figure 15 Maturity profile in December 2014

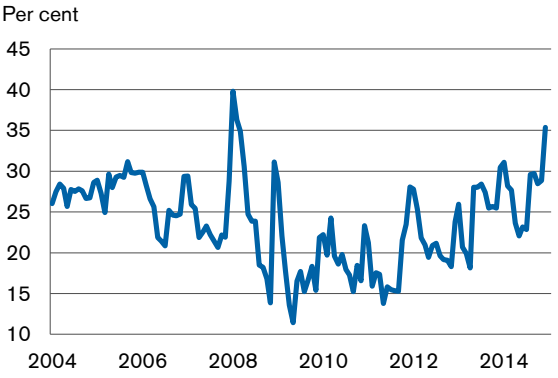


The short term borrowing in liquidity management tends to increase temporarily in December. This is because, historically, a large part of the state's annual payments are made specifically in December.

The central government borrowing requirement varies over the year on both a daily and a monthly basis. The Debt Office makes detailed forecasts so as to be able to manage loans and placements effectively in its liquidity management. See chapter 5 on forecasts and section 7.2 on liquidity management.

One way of illustrating liquidity risks is to study the share of the debt maturing within 12 months. Short debt mainly creates liquidity risks but also generates refinancing risks to the extent that it involves refinancing an outstanding stock of T-bills and commercial paper.

Figure 16 Share of debt maturing within one year



The share of the debt maturing within one year is slightly higher than before the financial crisis even though the Debt Office has increased its borrowing in the capital market to reduce risks. This is partly because old bond loans with a relatively large outstanding volume have matured.

Counterparty risks

Counterparty risk means the risk that the counterparty in a transaction cannot fulfil its payment obligations or obligations to deliver other collateral.

Counterparty risks arise both when placing temporary surpluses in liquidity management and when the Debt Office enters into OTC derivative transactions. OTC derivative transactions mean transactions 'over the counter' in contracts that are not standardised. Counterparty risks are handled in different ways in OTC derivative transactions and in placements. Minimum requirements regarding the counterparty's credit rating are common to both areas.

Through liquidity management the Debt Office borrows or places funds on a daily basis so as to guarantee that the state can make its payments at as low a cost as possible. To handle the counterparty risk for these placements there are limits based on the counterparty's credit rating that regulate the maximum exposure and maturity.

OTC derivative transactions are used to steer the maturity of the central government debt and to take positions. OTC derivative transactions can either be closed bilaterally or through central counterparty clearing.

For the Debt Office to be able to conduct OTC derivative transactions with a counterparty without central counterparty clearing, there must be an ISDA agreement with a downgrade clause and an agreement called a Credit Support Annex (CSA). The CSA agreement contains thresholds that govern the maximum permitted exposure to the counterparty. If the value of the OTC derivative exposure exceeds these thresholds, the counterparty pays that amount in collateral to the Debt Office. This collateral is protection in the event that the counterparty is unable to meet its commitments. The size of the threshold value depends on the counterparty's credit rating. The Debt Office's ISDA/CSAs are bilateral in the sense that the Debt Office not only accepts but also provides collateral if the counterparty has a positive exposure in relation to the Debt Office.

Regulations of this type are defined and updated continuously in the context of the Debt Office's Financial and Risk Policy.

4 Summary of borrowing in 2014

This chapter gives a summary overview of borrowing requirements and borrowing in 2014.

The net borrowing requirement, and also the deficit in the central government budget, was SEK 72 billion in 2014. This is a decrease of SEK 59 billion compared with 2013. In addition to covering the deficit in the central government budget, the Debt Office needs to borrow to finance loans reaching maturity and buy-backs in exchanges. The borrowing requirement increased in 2014 compared with 2013. The reason was an increase in redemptions in the capital market compared with 2013.

Interest rates fell to record low levels in 2014. The market rate on the ten-year government bond was noted at less than 1 per cent at the end of the year. Government bonds with a maturity of ten years were issued at an average interest rate of 1.77 per cent, which can be compared with 2.14 per cent in 2013.

Table 3 Gross borrowing requirement

SEK billion	2013	2014
Net funding requirement	131	72
Affärsdagsjustering mm[1]	0	-4
Retail borrowing & collateral, net[2]	18	3
Money market redemption[3]	206	180
T-bills	105	94
Commercial paper	77	39
Liquidity management	24	47
Bond redemptions, exchanges, buy-backs, net	46	182
Government bonds	10	89
Inflation-linked bonds	4	8
Foreign currency bonds	31	86
Total gross funding requirement[4]	402	433

[1] *Adjustment for the difference between settlement day and business day. The net borrowing requirement is cashflow-based (settlement day) as opposed to funding and outstanding debt.*

[2] *Net change in retail borrowing and collateral.*

[3] *Initial stock maturing within 12 months*

[4] *Refers to borrowing on the institutional market*

In 2014 total gross borrowing amounted to SEK 433 billion in 2014. Central government borrowing increased by SEK 31 billion in 2014 compared with 2013.

Table 4 Total gross borrowing

SEK billion	2013	2014
Money market funding[1]	180	256
T-bills	94	88
Commercial paper	39	124
of which on behalf of the state	20	117
of which on-lending to the Riksbank	19	6
Liquidity management	47	44
Bond funding	222	177
Government bonds	74	77
Inflation-linked bonds	12	17
Foreign currency bonds	137	84
of which on behalf of the state	6	25
of which on-lending to the Riksbank	131	59
Total gross funding[1]	402	433

[1] *Outstanding stock as of year-end.*

In February the planned issue volume of nominal bonds was increased from SEK 74 to 77 billion. This volume then remained constant for the rest of the year. The volume issued was SEK 76.8 billion. For inflation-linked bonds the planned issues were raised from SEK 15 billion at the beginning of the year to SEK 17 billion. The volume issued was SEK 16.8 billion.

The Debt Office issued SEK 59 billion in foreign currency bonds on behalf of the Riksbank in 2014. The Debt Office only issued foreign currency bonds corresponding to SEK 25 billion on behalf of the state.

In 2014 no new loans were raised on behalf of the Riksbank. The Debt Office only refinanced maturing loans in the existing stock.

On-lending to the Riksbank is financed by the Debt Office raising foreign currency loans that are, in principle, earmarked for the purpose. Therefore other central government borrowing is not affected by the on-lending, even though it is in itself a substantial operation for the Debt Office. The Riksbank reimburses the Debt Office for the cost of the loans including its administrative costs. See chapter 8 for more information.

The Debt Office has been instructed by the Government to increase the volume of bonds with maturities of more than twelve years to SEK 70 billion. This is a benchmark that is to be achieved in the long term. The Debt Office issued into the longest outstanding bond on three occasions during the year. A total of SEK 1.5 billion was issued in 2014.

5 Forecasts of net borrowing requirement

This chapter evaluates the Debt Office's forecasts of the net borrowing requirement on a yearly, monthly and daily basis in relation to outcomes. A comparison is also made with forecasts of the annual borrowing requirement made by other government agencies.

The net central government borrowing requirement is the single most important factor for the development of the central government debt. The Debt Office therefore makes detailed forecasts of the net borrowing requirement, both in the short and the long term. The purpose of these forecasts is to create conditions for stable issue plans and effective liquidity management.

In general it can be said that the annual forecasts steer bond borrowing and the monthly forecasts steer borrowing in commercial paper and T-bills, while the daily forecasts affect day-to-day liquidity management.

Annual forecasts for 2014

In 2014 the net borrowing requirement was SEK 72 billion. This can be compared with a net borrowing requirement of SEK 131 billion in 2013. The main reason for the reduction is that on-lending to the Riksbank, Ireland and Iceland increased by SEK 107 billion in 2013, but only increased by SEK 3 billion in 2014. In addition, unusually low interest payments on the central government debt contributed to the reduction of the net borrowing requirement.

Interest payments only amounted to SEK 3 billion, which is the lowest level since 1974. On the other hand, the net borrowing requirement was influenced in the opposite direction by the fact that the state did not have any income from the sale of assets in 2014, to be compared with income of SEK 42 billion from assets sales in 2013.

The table shown below presents the annual forecasts for 2014 published by the Debt Office since autumn 2013. The first forecast was published in autumn 2013 and was SEK 56 billion.

Table 5 Annual forecasts for 2014

SEK billion	13:3	14:1	14:2	14:3	Out-come
Primary borrowing req.	**44**	**57**	**57**	**57**	**69**
of which on-lending	0	1	2	3	3
of which sales of state assets	0	0	0	0	0
Interest payments	**17**	**10**	**4**	**3**	**3**
Net borrowing requirement	**61**	**67**	**61**	**60**	**72**
Net borrowing requirement excl. on- lending and sales of state assets	**61**	**66**	**59**	**57**	**70**

The forecasts for 2014 have been very stable. The difference between the highest and the lowest forecast is only SEK 11 billion. Interest payments on the central government debt have been gradually scaled down, but this has largely been offset by an increase in the forecast of the primary borrowing requirement. The net borrowing requirement has been underestimated in all the forecasts. The deviations since the first forecast vary between SEK 5 and 16 billion. In a two-year horizon this is to be viewed as small deviations. The final forecast was published less than a month before the end of the year yet still had a deviation of SEK 12 billion. The net borrowing requirement varies a great deal from month to month so it is not wholly out of the ordinary to have deviations of that magnitude.

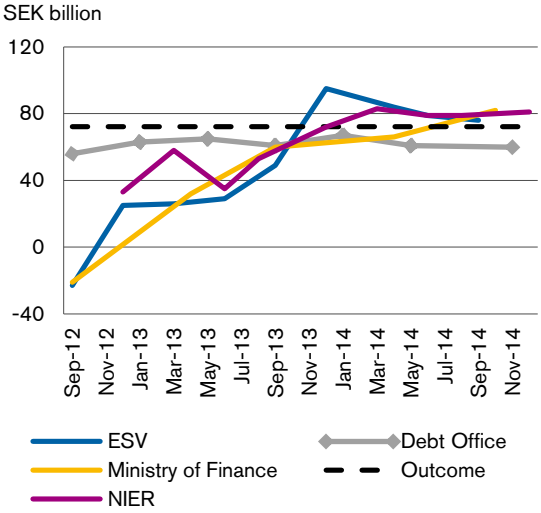
Comparison with forecasts by other government agencies

In addition to the Debt Office, two government agencies and the Government itself make forecasts of the central government's net borrowing requirement: the National Institute of Economic Research (NIER), the National Financial Management Authority (ESV) and the Ministry of Finance.

The agencies and the Ministry of Finance have different principles for dealing with sales income in forecasting contexts. To simplify comparisons the

sales income has been excluded from the graph shown below.

Figure 17 Comparison with other government agencies



From autumn 2012 and some way into 2013 the Debt Office had a considerably higher forecast of the net borrowing requirement than the other agencies. The deviation between the outcome for 2014 and the Debt Office's forecast from autumn 2012 is only SEK 16 billion. The corresponding deviations for the ESV and the Ministry of Finance are SEK 95 and 93 billon respectively. From autumn 2013 the agencies' forecasts have been more similar.

The Debt Office has consistently underestimated the net borrowing requirement while forecasts made by the other agencies have shown greater variation. In their final forecast all the other agencies overestimated the net borrowing requirement.

Monthly forecasts

At present the Debt Office is the only government agency to publish monthly forecasts of the net borrowing requirement. This means that comparisons cannot be made with other forecasters. The measure that the Debt Office uses to monitor the precision of its monthly forecasts is the Root Mean Square Error (RMSE).[5]

[5] *The Debt Office has chosen to define Root Mean Square Error (RMSE) as:*

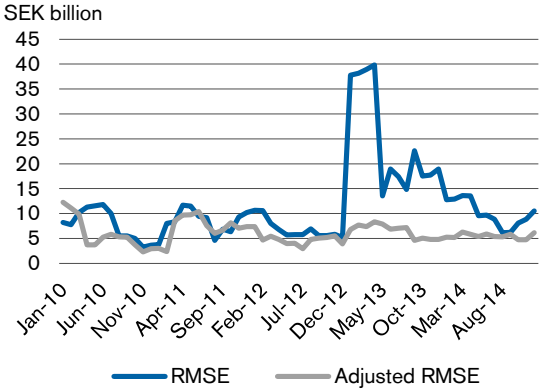
$$rmse = \sqrt{(e_1^2 + e_2^2 + e_3^2 + e_4^2)/4}$$

Where e = (outcome of net borrowing requirement for a month – last published forecast for the month).

Where t goes from month 1 to 4. The reason for choosing to use four periods is that the Debt Office updates its forecast every fourth month (three times a year).

Put simply, this measure can be interpreted as the average value of the absolute error, which means that the values are always positive. The difference compared with an ordinary absolute error is that the RMSE is slightly higher since it also captures the variation in the size of the errors. The time period evaluated is the rolling four-month period.

Figure 18 Deviations in monthly forecasts according to RMSE 2010-2014



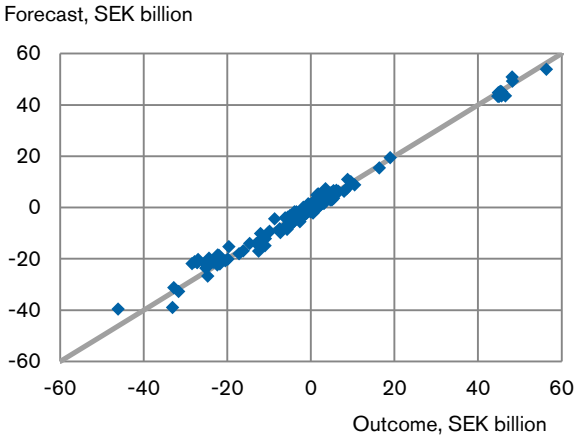
The above graph shows the development of the RMSE since 2010. It shows that the RMSE decreased in 2014 compared with 2013. However, this is because the forecast deviations in 2013 were affected strongly by on-lending and sales income. If the measure is adjusted for the Debt Office's net lending and for sales income, the precision of the forecasts was at the same level as before.

Daily forecasts

The Debt Office also makes daily forecasts so as to plan its liquidity management. This means that the monthly forecasts are spread over all business days. The forecasts are spread over business days at least six months into the future. Unlike the annual and monthly forecasts, the daily forecasts are updated continually when new information becomes available.

In 2014 the average deviation per day was SEK 50 million. The figure given below shows the outcome and forecast for the central government's primary net borrowing requirement excluding the Debt Office's net lending per day in 2014. The distance to the 45 degree line is the deviation in the forecast for each day. If there was no information value in the forecasts, these points would have been randomly distributed.

Figure 19 Forecasts and outcomes on a daily basis



6 Capital market borrowing

This chapter reports borrowing in government bonds, inflation-linked bonds and foreign currency bonds. It also describes the Debt Office's policy for borrowing in each of these instruments.

6.1 Government bonds

Government bonds are the Debt Office's largest and therefore most important funding source. As a result, government bonds have higher priority than other instruments in borrowing by the Debt Office. The total volume that the Debt Office expects to borrow at auctions is of key importance for the liquidity and pricing of government bonds in the secondary market.

The Debt Office offers many regular issues according to a pre-determined issue plan. Selling small volumes on many occasions avoids exposure to unfavourable market situations and reduces the refinancing risk. At the same time investors are offered continuous access to the primary market. The size of the issues is chiefly influenced by the net borrowing requirement in the long term.

Policy

- The Debt Office gives priority to borrowing in government bonds so as to maintain a liquid bond market.
- Fluctuations in the borrowing requirement are primarily handled using other instruments.
- The Debt Offices seeks to maintain an even maturity profile up to ten years. New ten-year government bonds are introduced regularly at intervals of 12–18 months. When the loan requirement is small, the Debt Office chooses to have a greater interval so as to be able to build up a large enough volume of bonds, thereby ensuing good liquidity.
- The Debt Office primarily issues in ten-year and five-year maturities.
- Issues in two-year maturities are made to support liquidity in the futures market or to spread borrowing when the borrowing requirement is great. Issues are also made of loans between 2, 5 and 10 years, chiefly to support liquidity in situations of shortages.
- When the market situation so permits, the Debt Office can also issue bonds that are longer than 12 years.

Deliberations during the year

Issue volumes

The issue rate was revised slightly from SEK 74 billion to SEK 77 billion on an annual basis in the first forecast in 2014 (2014:1). Thereafter the planned issue volume was the same for the whole of 2014.

However the forecast for the total borrowing requirement (net borrowing requirement plus redemptions) has varied. The borrowing requirement for 2014 turned out to be greater than had been assumed at the start of the year. However, this was addressed by increasing borrowing in other instruments. Table 6 shows planned issue volumes of government bonds and the change in the funding requirement.

Table 6 Planned borrowing in government bonds

	Planned issue volume			Change in the gross funding requirement	
	2014	2015	2016	2014	2015
2013:3	74	74		0	
2014:1	77	77		0	0
2014:2	77	77		0	0
2014:3	77	77	77	0	0
Realised	**77**				

When the planned borrowing in government bonds was increased to SEK 77 billion at the start of 2014, the Debt Office added an extra auction to the issue plan for 2014.

Insufficient demand for a new 30-year bond

During the year the Debt Office discussed the possible introduction of a new 30-year government bond in the report *Central Government Borrowing 2014:1*. The Debt Office gathered wishes and views from primary dealers and investors on the question of a new 30-year bond. The replies showed that the demand for a new 30-year bond was very limited. This meant that sufficient conditions were not in place to introduce such a bond.

New ten-year government bond in 2014
A new government bond, *SGB 1058 2.5% 12 May 25*, was introduced as planned on 29 January 2014. The bond became the ten-year reference bond in June 2014. As with previous introductions, exchanges to the new government bond were offered in connection with the introduction. Further exchanges were offered before the bond became the reference bond.

Other exchanges during the year
SGB 1047 became the five-year reference loan in the electronic interbank market in December 2014. In November the Debt Office therefore offered exchanges to SGB 1047. The purpose was to increase the outstanding stock of SGB 1047.

Two settlement days in the Swedish bond market
As of 6 October 2014 the delivery and payment of all Swedish government securities takes place two business days after completion of the transaction. The changeover from three to two settlement days for bonds is based on the CSD Regulation, an initiative of the European Commission which harmonises the standard for the settlement of government securities in the secondary market. As of 6 October 2014 transactions in government securities in the EU have a settlement date two banking days after the transaction took place. In Sweden the change was made at the same time in both the primary and the secondary market.

Long bonds
In November 2012 the Government decided to increase the benchmark for the outstanding stock of loans with maturities of more than 12 years from SEK 60 billion to SEK 70 billion. The benchmark is to be achieved in the long term. This means that the stock is to increase gradually at a rate determined by demand.

The Debt Office continually assesses the demand for long bonds. In 2014 there was, at times, sufficient interest for the Debt Office to make issues in the long segment. A total volume of SEK 1.5 billion was issued in the longest outstanding bond on three occasions during 2014. As a result, the outstanding stock increased from SEK 53.3 billion at the end of 2013 to SEK 54.8 billion at the end of 2014.

Result of borrowing activities
All sales of bonds were held as auctions. There were 22 auctions, each with a volume of SEK 3.5 billion. On 9 of these occasions the Debt Office conducted split auctions, where it issued two loans on the same auction date. In terms of maturities there were 10 auctions for bonds with a maturity of ten years, 14 auctions for bonds with a maturity of five years and two auctions for bonds with a maturity of two years.

The Debt Office issued a larger share in the five-year segment than in previous years. Since the borrowing requirement was relatively large, there was not the same need as before to concentrate borrowing in the ten-year segment in order to build up the volume in new loans.

Table 7 Volume issued and average yield

Government bond [1]	Antal auktioner	Emitterad volym	GER [2]
SGB 1047 5% 1 Dec 20	10	28 750	1.11
SGB 1050 3% 12 Jul 16	1	1 750	0.75
SGB 1051 3.75% 12 Aug 17	1	3 500	0.02
SGB 1052 4.25% 12 Mar 19	4	13 500	1.50
SGB 1053 3.5% 30 Mar 39	3	1 500	2.66
SGB 1054 3.5% 1 Jun 22	2	3 500	1.00
SGB 1057 1.5% 13 Nov 23	1	3 500	2.21
SGB 1058 2.5% 12 May 25	9	20810	1.69
		76 810	

[1] 2-year maturity: SGB 1050 (2016) and SGB 1051 (2017)
5-year maturity: SGB 1052 (2019) and SGB 1047 (2020)
10-year maturity: SGB 1057 (2023) and SGB 1058 (2025)
[2] Average issue yield at auctions

Table 8 Cover ratio and average issue yield

Per cent	2010	2011	2012	2013	2014
Cover ratio[1]	2.33	2.43	2.12	2.38	3.03
Average rate [2]	2.63	2.42	1.57	1.87	1.35

[1] Volume of bids received in relation to offered issue volume
[2] Outright auctions only; exchange auctions and syndication are not included.

The result of issues during the year is shown in Table 7 above.

Table 8 shows how average issue yields and cover ratios have developed. The cover ratio was the highest seen in the space of five years. At the same time, the average yield was the lowest.

Table 9 Exchanges of government bonds

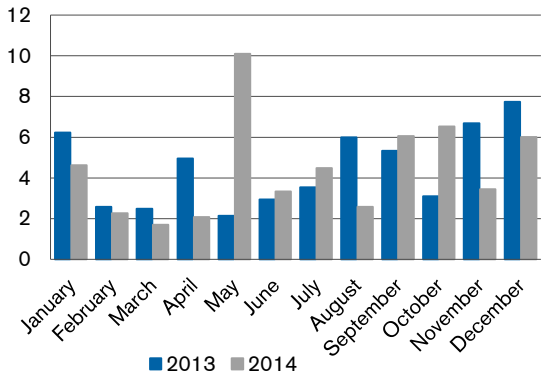
Auction date	Loan sell	Loan buy	Average yield	Buy-back yield
2014-11-14	SGB 1047	SGB 1052	0.57	0.24
2014-11-13	SGB 1047	SGB 1052	0.58	0.25
2014-05-12	SGB 1058	SGB 1057	2.05	1.92
2014-05-09	SGB 1058	SGB 1057	2.03	1.91
2014-05-08	SGB 1058	SGB 1057	2.07	1.94
2014-02-04	SGB 1058	SGB 1057	2.31	2.21
2014-02-03	SGB 1058	SGB 1057	2.32	2.22
2014-01-31	SGB 1058	SGB 1057	2.32	2.22
2014-01-30	SGB 1058	SGB 1057	2.34	2.24

In January, February and May exchanges were offered to the new ten-year bond *SGB 1058 2.5% 12 May 25*. The bond became the ten-year reference loan in the interbank market in June 2014. In these exchange the Debt Office bought back parts of the nearby loan *SGB 1057 1.5% 13 Nov 23*. In November exchanges were offered to the new five-year bond *SGB 1047 5% 1 Dec 20*. It became the five-year reference loan in the interbank market in December 2014. At the same time a part of the nearby loan *SGB 1052 4.25% 12 Mar 19* was bought back.

Market conditions

Demand for government bonds was good during the year. The average cover ratio for Debt Office issues increased to 3.03 in 2014 from 2.38 in 2013. However, in an auction in April less than the volume offered was sold. Many investors consider the auctions to be good opportunities to buy large sums at current market prices. One illustration of this is that on five occasions during the year one participant alone took the whole issue.

Figure 20 Market-maintaining repos[6]



[6] *Monthly average.*

Market maintenance

Market-maintaining repos in government bonds were, on average, at roughly the same level during the year as in the preceding year, see figure above.

6.2 Inflation-linked bonds

Borrowing in inflation-linked bonds supplements borrowing in government bonds. With inflation-linked borrowing the Debt Office reaches a larger part of investors' asset portfolios and the burden on government bonds is reduced. This is mainly an advantage when the debt is large or growing.

Policy

- The Debt Office seeks an even maturity profile for its inflation-linked debt.
- The long-term ambition is to spread the inflation-linked debt across more maturities with a smaller outstanding volume of each bond.
- New inflation-linked bonds are matched with government bonds in terms of maturities as far as possible.
- Auctions are held regularly and the volumes are small. This enables the Debt Office to avoid exposure to unfavourable market conditions while offering investors access to the primary market.

Deliberations during the year

Action to counter the decrease of the inflation-linked share

The Government's guidelines for 2014 state that, in the long term, inflation-linked debt is to make up 25 per cent of the total central government debt. The forecast for the inflation-linked share in the next few years has tended to be below the benchmark. As a measure to counter the decrease of this share, the Debt Office increased the supply of inflation-linked bonds in stages in 2013. The purpose was to gradually increase the supply of inflation-linked bonds at a rate that the market can cope with. This process continued with a further stage in 2014. This happened in the February forecast, when the Debt Office increased the volume for 2014 from SEK 15 to 17 billion as an annual rate.

After the February forecast the Debt Office made no further change in the planned issue volume of inflation-linked bonds. The reason was that the

Debt Office made the assessment that the current annual rate was what the market could handle given the prevailing market situation with low levels of interest rates.

In all forecasts made in 2014 for the coming year, 2015, the planned issue volume of inflation-linked bonds remained at an annual rate of SEK 18 billion. The first forecast for 2016 was published in December 2014. In it the planned annual rate of this borrowing was again SEK 18 billion.

However, increasing the supply of inflation-linked bonds only has a limited effect on the share of inflation-linked debt. The explanation is that the inflation-linked share mostly depends on the development of the net borrowing requirement and central government debt. Large increases or decreases in the net borrowing requirement cannot be addressed with the issue volume of inflation-linked bonds. The Debt Office is unable to use derivatives to adapt the share of inflation-linked debt in the same way as it does with the foreign currency debt. Carrying out exchanges between inflation-linked and nominal government bonds would entail excessive costs.

This is why the benchmark for the share of inflation-linked debt is a long-term benchmark and the Debt Office does not have to take immediate action to achieve the target. The surplus target for public sector finances means that the central government debt is expected to fall in the long term, as a result of which the inflation-linked share is expected to rise.

Measures to contribute to a more even maturity profile

The Debt Office announced in its June forecast that two new inflation-linked bonds might be introduced in 2015. First, a four-year bond intended to contribute to a more even maturity profile in the short part of the real yield curve. Second, a bond with a longer maturity than the longest outstanding inflation-linked bond. A new long bond would even out the maturity profile in the long segment and reduce pressure on the longest loan, which has a large outstanding volume and makes up a large part of the outstanding inflation-linked debt.

To examine the interest in the market the Debt Office conducted soundings in autumn 2014, when primary dealers and investors had the opportunity to give their views on the possible new loans. The response was largely positive and the Debt Office announced it its December report that both a four-year and a 17-year inflation-linked bond would be issued in the first half of 2015.

Table 10 Change in inflation-linked debt in 2014

Outstanding stock 2013-12-30, SEK billion	**197.8**
Auctions	16.76
Net of Exchanges	-0.1
Redemptions	-3.2
Net of market supporting exchanges	-4.3
National Debt Savings, Inflations-linked	-0.2
Bonds taken over	0.0
Inflation adjustment	-3.6
Outstanding stock 2014-12-28, SEK billion	**203.2**

Result of borrowing activities

Sales of inflation-linked bonds take place in several ways. The Debt Office conducts both regular auctions and market-maintaining exchanges. Both these sale channels affect the outstanding stock.

The main channel is auctions, 17 of which were held during the year. These auctions were divided between four inflation-linked bonds, with maturities of three to eleven years.

Table 11 Issue volume and average yield per loan

Bond	Volume sold, SEK billion	Average yield, per cent
SGB IL 3107 (2017)	4	-0.35
SGB IL 3102 (2020)	2.5	-0.18
SGB IL 3108 (2022)	2	0.34
SGB IL 3109 (2025)	8.26	0.21

In 2014 exchange auctions were carried out in three periods. In February exchanges were carried out in connection with the introduction of a new ten-year bond.

In March and May exchanges were made as part of the Debt Office's exchange facility for the winding-down of short inflation-linked bonds with a volume in excess of SEK 25 billion. The aggregate volume of the short bond bought back was SEK 7.6 billion. On 1 December 2014 the bond had one year left to maturity. The outstanding nominal amount at that time was SEK 23.3 billion.

Table 12 Cover ratio and average yield per year

SEK billion	2010	2011	2012	2013	2014
Issue volume[1]	11.9	0.6	7.18	11.1	16.7
Volume sold[2]	7.7	6	6.5	11.5	16.8
Cover ratio[3]	5.34	5.24	5.83	3.88	2.98
Average yield[4]	0.51	0.55	-0.01	0.23	0.03

[1] *Total volume issued in auctions during the year, net after outright auctions, exchanges and buybacks.*

[2] *Total volume sold in auctions, excluding exchanges and buybacks.*

[3] *Bid volume received as a proportion of issue volume offered, pure auctions.*

[4] *Weighted average issue yield over the year in outright auctions.*

The market conditions for the sale of inflation-linked bonds deteriorated slightly in 2014 on account of ever lower inflation expectations in combination with a continuing fall of interest rates. Demand varied strongly. On two occasions in the last quarter the issues were slightly under-subscribed. The cover ratio in the auctions fell from an average of 3.88 in 2013 to 2.98 in 2014.

Despite this, the Debt Office was able to increase the annual volume offered by SEK 5.5 billion compared with the preceding year. At the same time, the total volume of bids received rose from SEK 44.7 billion in 2013 to SEK 54.1 billion in 2014. So the increase in supply from the Debt Office has been met by relatively good demand. As mentioned previously, the Debt Office plans to maintain the volume of lending in the coming years.

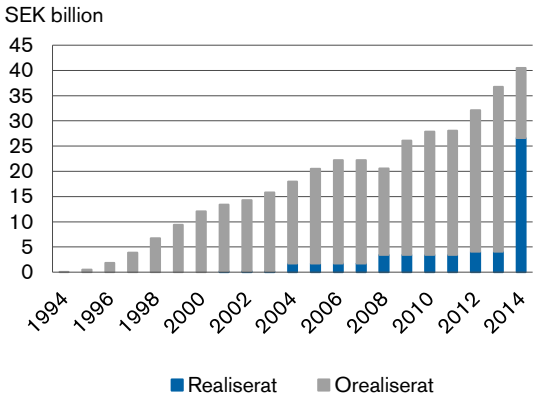
Cost evaluation of inflation-linked borrowing

Since inflation-linked bonds were introduced in 1994, inflation has been lower than the average break-even inflation in the issues. The cost of inflation-linked borrowing has therefore been lower than for hypothetical borrowing in government bonds with the same maturity.

The total calculated result since 1994 is SEK 40.5 billion, of which SEK 26.6 billion has been realised. The result increased by SEK 3.8 billion in 2014 since the inflation indexation for the inflation-linked bonds was -0.1 per cent measured as the development of the CPI.[7]

[7] *Inflation-linked bonds are indexed to the CPI with a lag of three months. This figure therefore refers to inflation in the period October 2013 to October 2014.*

Figure 21 Result of inflation-linked borrowing



A large part of the result comes from when the inflation-linked stock was built up in the initial years. Then break-even inflation was at a considerably higher level than it has been since. This is seen from the fact that over half of the positive result comes from the first bond to be issued – inflation-linked bond 3001 – which matured in April 2014.

Market maintenance

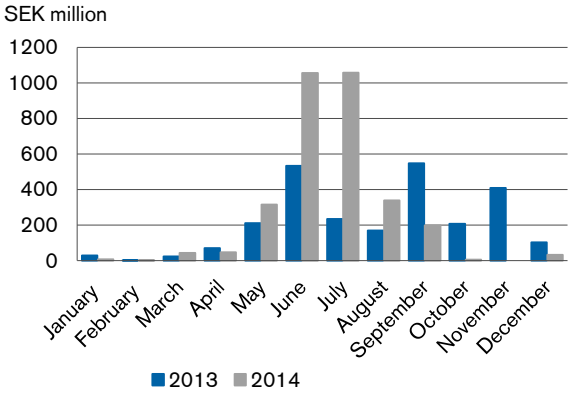
The Debt Office offers primary dealers on tap exchanges of inflation-linked bonds in order to improve liquidity in the inflation-linked bond market. That offer remains in place until one year before the loan matures.

From the date when an inflation-linked bond has one year left to maturity, primary dealers are instead offered a limited buyback facility with an ample premium. Moreover, in good time before these inflation-linked bonds become shorter than one year, several exchange issues are offered. The aim is that, at maturity, inflation-linked bonds will not have an outstanding volume of more than SEK 25 billion. Excessive volumes can put a strain on the market and be a reinvestment risk for investors.

The Debt Office's long-term strategy of spreading the inflation-linked debt over several maturities will eventually mean that exchanges and repurchases of short inflation-linked bonds will no longer be needed. Then the outstanding stocks will probably be of a size that will make it possible for inflation-linked bonds to mature without, for example, causing excessive reinvestment problems.

When borrowing has increased, the Debt Office has sought to increase the number of auctions rather than increasing the volume per auction. The purpose has been to provide continuity in the primary market, thus contributing to better liquidity in inflation-linked bonds.

Figure 22 Market-maintaining repos per month.



6.3 Foreign currency bonds

Foreign currency bonds are a way of financing the central government debt and broadening the investor base as well as of creating exposure in foreign currency. Under the guidelines that applied to 2014 the share of foreign currency exposure is to correspond to 15 per cent of the central government debt. The Debt Office can also create exposure in foreign currency by using swaps. Bonds in foreign currencies and Swedish kronor are therefore substitutable when seeking to achieve a certain amount of exposure. This section only discusses borrowing in bonds and commercial paper denominated in foreign currencies.

Policy

- Bonds in foreign currencies are primarily a supplement to bonds in Swedish kronor. The volume of foreign currency bonds sold depends mainly on the size of the net borrowing requirement.
- The Debt Office issues small amounts in foreign currency even when the net borrowing requirement is small in order to ensure a market presence and thereby a broad investor base.
- The Debt Office also finances on-lending to the Riksbank through bonds and commercial paper in foreign currency.

The Debt Office gives priority to borrowing in government bonds. A small net funding requirement normally means that foreign currency loans are refinanced through borrowing in SEK which is swapped to foreign currency. If the loan requirement is larger, the Debt Office can supplement borrowing in government bonds with foreign currency bonds.

Borrowing using foreign currency bonds spreads the underlying financing across more markets and broadens the investor base. This creates conditions for a low cost in the long term for the whole central government debt. If the government bond stock increases too quickly, the stresses on the market will be greater, resulting in higher interest rates.

Borrowing in foreign-currency bonds also provides established funding channels that are valuable as preparedness for crisis periods when the Debt Office may have to borrow very large amounts.

The choice of the timing of an issue and the choice of a price (interest rate) at the issue date can be crucial for a successful result. For the Debt Office the aim is to succeed in borrowing the volume planned and doing so as cheaply as possible from a longer-term perspective. This makes it important to choose both the point in time and the interest offered at the sale in a well-considered way. Borrowing is a repeat activity. If investors are to be interested in participating on the next occasion, it is an advantage if investors feel that the issuer is not the only one who made a good deal. So there is reason to set a price that means that not all investors receive an allocation. This means that there still exists demand after the issue and that the market yield may, at least, not rise in the secondary market.

Deliberations during the year

In the Debt Office's February forecast the net borrowing requirement for 2014 was expected to increase by SEK 7 billion while the outcome for 2013 had been poorer than expected. Part of the increase in the borrowing requirement was handled by increasing the volume of foreign currency bonds on behalf of the state from SEK 17 billion to SEK 26 billion, see also section 6.1. Thereafter the planned volume remained constant during the rest of the year.

Result of borrowing activities including on-lending

In 2014 the Debt Office borrowed considerably smaller amounts via the international capital market than in the previous year. The main explanation is that no new borrowing was carried out on behalf of the Riksbank in 2014, and there was only refinancing of previous loans that matured during the year. In all, borrowing totalled SEK 84 billion in 2014. with SEK 59 billion relating to on-lending to the Riksbank.

On behalf of the central government the Debt Office raised a five-year bond in euros corresponding to SEK 20 billion and a euro private placement corresponding to SK 4.5 billion. See the fact box about private placement on page 29. The SEK 59 billion on behalf of the Riksbank was covered by four loans totalling USD 8.5 billion. The maturities of these loans varied between two and five years. The maturities of the loans raised to finance the on-lending to the Riksbank were governed by the wish of the Riksbank not to borrow at longer maturities than 5 years.

During years with smaller needs of borrowing in foreign currency bonds, usually only public bonds are used in order to help to maintain a broad international investor base.

The Debt Office was also able this year to raise new loans on favourable terms. The low borrowing interest rates were due both to a continued low level of interest rates globally and to the great interest shown by investors in government bonds with high creditworthiness. In most cases the interest rate was, in fact, lower than for other large state borrowers, excluding the Germany and the US. These countries can be said to be benchmarks for issues by other countries in EUR and USD. There was a limited supply of bonds with high creditworthiness in the international markets in 2014. As a result, the value of the bonds rose in the secondary market after issue, despite low issue interest rates.

One example is the pricing of the Debt Office's euro bond from April that was priced at 16 basis points under the swap curve[8] . A comparison with the levels in the secondary market for corresponding maturities on the issue date shows that the Debt Office's interest rate was 19 basis points above Germany and 2.5 and 3.5 basis points below Finland and the Netherlands. Note also that the interest rate on the issue is often higher than the listings in the secondary market. This must be regarded as a very low interest rate since the Debt Office, unlike countries in the euro zone, cannot offer large liquid issues in euros. This means that the Debt Office must pay a liquidity premium. The conclusion is that the Debt Office is able to borrow on very good terms.

The USD bonds were issued at a cost of 7 basis points on average under the three-month USD Libor. The euro bonds were issued at 15 basis points under six-month Euribor. USD Libor and Euribor are standardised bank interest rates that are used here to give historical comparability.

The good terms for borrowing in 2014 show that the Debt Office has a very broad investor base spread across different categories and geographical areas. Overall, central banks represented the largest single category of investors. The majority of investors were Asian.

Table 13 Relative funding cost of foreign currency bonds

Basis points	2010	2011	2012	2013	2014
USD Libor[1]	0	-9	-15	-5	-7
Euribor[2]	-	-55	-51	-11	-15

[1] Three-month floating bank interest rate
[2] Six-month floating bank interest rate

Public bonds and private placements

The Debt Office sells foreign currency bonds through syndication. This means that the Debt Office hires a group of banks, a syndicate, to organize the sale. At syndication the bond is marketed publicly by the syndicate and investors are offered to subscribe to buy the bond. Such a bond is called a "public bond" for the reason that it is sold openly to many investors.

A "Private Placement" is when a bond is not marketed but directly targeted to one or a few investors who have shown interest. In the normal case only one bank is hired. why it is not called syndicate. But even in this case the bank is responsible for the bond sale.

Both public bonds and private placements sold with a record under English law and is therefore not a government bond without a Eurobond. The term eurobond refers only to the not sold to US law, but in this case English and can be denominated in dollars, euros or another currency.

[8] The practice for pricing in the bond market is to use the swap curve (swap rates for different maturities) in each currency as a reference. The price is expressed as a spread between the bond and the swap rate for the corresponding maturity.

Swaps between Swedish kronor and foreign currency

The Debt Office can borrow in foreign currency in two ways:

1. By issuing foreign currency bonds or
2. By swapping bonds in Swedish kronor into foreign currency. The swap is an 'interest rate swap' between Swedish kronor and foreign currency (cross-currency swap).

Borrowing combined with swaps takes place in the following stages:

1. The Debt Office issues a government bond denominated in Swedish kronor.

   Then the interest rate swap is made between Swedish kronor and foreign currency and it contains three stages:

2. The fixed interest payment on the government bond is swapped to a floating rate in Swedish kronor via an interest rate swap.
3. The floating rate in Swedish kronor is swapped to a floating rate in foreign currency through a basis swap.
4. Within the basis swap transaction. Swedish kronor are exchanged into foreign currency in a spot transaction (initial exchange) at the same time. At the same time the Debt Office undertakes to make a reverse exchange when the swap matures at a predetermined exchange rate (final exchange). This undertaking is a forward exchange of the foreign currency bought in the spot exchange into Swedish kronor.

In principle, the exchange is carried out with the funds lent when the government bond was issued. In practice the Debt Office has then 'borrowed' in foreign currency with interest payments in foreign currency. At the same time a debt is incurred in foreign currency since, when the swap matures, the Debt Office has to pay back in foreign currency, i.e. execute the forward exchange.

7 Money market borrowing

This chapter presents the Debt Office's borrowing in T-bills and commercial paper as well as loans and placements in the Debt Office's liquidity management.

7.1 T-bills

The primary purpose of T-bills is to handle seasonal fluctuations in the net borrowing requirement and forecasting deviations. T-bills are issued regularly at auctions.

Policy

- The Debt Office sells T-bills with maturities of up to six months.
- Every three months the Debt Office issues a six-month bill. In the other months a new three-month bill is introduced.
- The two T-bills with the shortest maturity are issued on tap when required, as are liquidity T-bills (T-bills with customised maturities).

Deliberations during the year

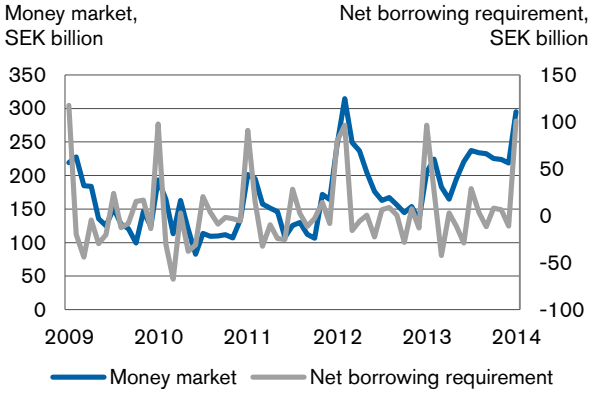
At the beginning of the year the T-bill stock was expected to increase compared with the previous year due to an increased borrowing requirement in 2014. Instead the outstanding stock of T-bills decreased slightly.

To some extent the Debt Office adapts borrowing in T-bills to the variation between months in the central government borrowing requirement. In general the borrowing requirement is greatest in December. The decrease in 2014 is because the Debt Office evened out borrowing compared with the forecast at the start of the year. The reason was to facilitate the market in T-bills. This meant that the issues at the end of the year were lower than planned.

The Debt Office also supplements T-bill borrowing by raising funds in commercial paper, short loans in foreign currency. These loans are hedged against SEK and are, in practice, a replacement for T-bill funding. The Debt Office can also top up existing one- and two-month T-bills via on tap sales outside auctions.

The volume of the outstanding stock in the money market varies over the months of the year since the state's borrowing requirement varies. As a rule, the state has large borrowing requirements at the end of the year. As seen in Figure 23 the outstanding stock in the money market rises at the end of the year.

Figure 23 Outstanding stock in the money market and net borrowing requirement



Result of borrowing activities

The average interest rate in the auctions was slightly lower than in the previous year. In part this reflects the fact that the repo rate was lower in 2014 than in 2013. The cover ratio shows that demand in the auctions was slightly higher than in the preceding year.

Table 14 Cover ratio and average yield

Per cent	2010	2011	2012	2013	2014
Market interest rate buy	0.54	1.68	1.21	0.94	0.45
Market interest rate sell	0.44	1.57	1.03	0.78	0.33
Cover ratio[1]	1.91	1.80	2.15	2.14	2.21
Average yield[2]	0.47	1.60	1.14	0.90	0.41

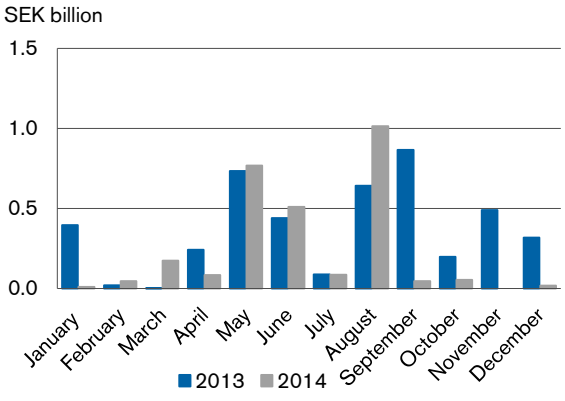
[1]Bid volume received as a proportion of issue volume offered.

[2]Only outright auctions, i.e. exchange auctions not included.

Market maintenance

The volumes of market-maintaining repos in 2014 were at about the same levels as in the previous year.

Figure 24 Market-maintaining repos per month



7.2 Liquidity management

In liquidity management money is borrowed or placed so that the state will always meet its payment commitments on a daily basis through the Debt Office.

The Debt Office handles both long-term and medium-term borrowing for central government, *regular borrowing,* and central government's short-term financing and placement needs, *liquidity management*. There is no sharp dividing line between regular borrowing and liquidity management. One example of this is that borrowing in T-bills is used both to finance the underlying central government debt and to cope with fluctuations in cash flow between the months of the year. Variations in borrowing in T-bills are thus part of liquidity management. Short-term forecasting deviations in the net borrowing requirement can also be handled using T-bills.

The instruments that are used in liquidity management over and above these are bank loans and bank deposits. Repos, on tap sales and repurchase of T-bills, liquidity bills (T-bills with customised maturities), three-party repos (repos against a basket of collateral with a third party handling the collateral) and commercial paper. The Debt Office mainly conducts transactions in SEK, but also conducts transactions in foreign currency.

Policy

- The Debt Office will handle the state's day-to-day borrowing requirement and placement requirement in a safe and cost-effective way in both Swedish kronor and foreign currency.
- The state's incoming and outgoing cash flows are matched as much as possible.
- Currency exchanges between Swedish kronor and other currencies are spread evenly over the year.

Market conditions and deliberations during the year

The market has continued to be characterised by low inflation expectations and falling interest rates. The Riksbank's repo rate was 0.75 per cent at the start of the year. In June the Riksbank reduced its repo rate to 0.25 per cent followed by a further reduction in October to 0 per cent. When the latest reduction was made, the Riksbank also decided that their daily fine-tuned transactions will be made at 0 per cent. These had previously been at the repo rate±10 basis points. This change does not seem to have altered the incentive structure in the market.

The structural surplus in the payment system has continued to increase. As a result, it is still somewhat easier for the Debt Office to borrow than it is to place funds.

The Debt Office's strategy is to plan liquidity management so that there is a certain borrowing requirement at the end of the day and to then avoid coming into the situation where it needs to place funds overnight.

The Debt Office's forecasts of central government's net borrowing requirement on a daily basis are of great importance for the potential for good forward planning in liquidity management. This leads both to reduced risks and lower costs. However, sometimes there are large payments that are hard to foresee.

During periods with large borrowing requirements, borrowing in foreign currency is sometime justified. The Debt Office does this through commercial paper. When the Debt Office has sold a commercial paper, the sum is exchanged into Swedish kronor. At the same time the Debt Office hedges the foreign currency exposure using an FX forward contract. Since the currency risk is eliminated, the borrowing is equivalent to selling T-bills in Swedish kronor. The procedure of selling foreign currency spot and buying the currency back forward is called an FX swap.

The major difference between commercial paper and short bills is that commercial paper provides a possibility of making use of the international demand for short government securities. This means that the Debt Office is able to borrow large

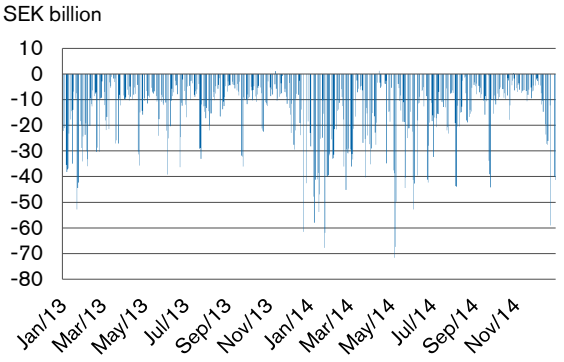
sums in foreign currency at short notice in order to, for example, cope with variations in the state's cash flow.

Commercial paper has become an increasingly important instrument for the Debt Office. One reason for this is that the market for T-bills is not deep enough to be able to increase to a sufficient extent in a cost-effective way when the borrowing requirement is greater. In contrast, the commercial paper market has functioned very well.

Result of borrowing activities

As regards the result of liquidity management, it is worth noting that the cost chiefly depends on the volumes of central government payments and the overnight interest rate at which the Debt Office borrows in the deposit market. There the Debt Office does the bulk of its borrowing at the repo rate. which became lower and lower during the year and is now 0 per cent.

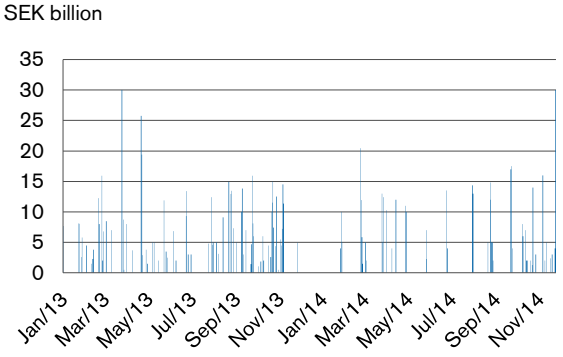
Figure 25 Overnight volume on a daily basis



Good forward planning enables the Debt Office to borrow and place on better terms. One example is the possibility of placing surpluses in three-party repos. which give higher interest rates than placements in the deposit market. In addition, the risk is less since placements in repos are made in return for collateral.

In 2014 the Debt Office issued commercial paper for the equivalent of SEK 296 billion. Unlike the previous year, the greater part of this amount, SEK 241 billion, was on behalf of central government. The bulk, SEK 278 billion, was issued in US dollars. The remaining amount, corresponding to SEK 18 billion, was issued in euros.

Figure 26 Volume in reverse repos and three-party repos 2013-2014



Commercial paper in liquidity management had a maturity of from two week to six months. The average maturity during the year was about three months. which was a clear extension compared with the preceding year. The explanation of this is that the Debt Office has made more regular use of commercial paper in 2014. The average pricing of the Debt Office's borrowing in dollars with a maturity of three months was 0.12 per cent. which corresponds to 11 basis points under USD Libor with the same maturity. The commercial paper issued at the start of the year had a borrowing cost corresponding to or just under the repo rate. After the fall of the repo rate to zero the cost is a couple of basis points above the repo rate. The repo rate is the opportunity cost that the Debt Office pays to finance the outstanding borrowing requirement at the end of the day in the deposit market.

Flows in foreign currency/currency conversions

New and maturing loans, basis swaps, interest payments, EU payments and accounts with collateral (CSA flows) generate current flows in foreign currency. The Debt Office exchanges the net of all flows over a year in the direction required to maintain the planned currency exposure. The Debt Office endeavours to make the exchanges evenly over time. To deal with the fact that the objective is exchanges spread evenly over the year at the same time as a large part of the flows comes on a couple of specific occasions, the Debt Office makes use of FX swaps (which are a spot exchange combined with an FX Forward)

The Board of the Debt Office decides on the maximum deviation from such an even conversion path. In 2014 the deviations were below this limit for all months. In the day-to-day management of currency conversions, occasions with good liquidity are used to reduce costs.

The Riksbank's operational framework and the structural liquidity position of the banking system

The Riksbank influences growth and inflation in the economy by affecting interest rates at different maturities. This is mostly done by steering the overnight rate - that is, the rate on loans from today until the next business day. This rate serves as an anchor for the interest rate formation at longer maturities.

The Riksbank steers the overnight rate by ensuring that the banks participating in the RIX system can meet their liquidity requirements by turning to the Riksbank's standing facilities and fine-tuning transactions overnight. Through the standing facilities, the Riksbank sets the cost of lending and borrowing vis-à-vis the central bank. This cost is usually higher than the cost agreed between banks themselves and, thus, steers the overnight rate to set between the rates of the standing facilities. Currently, the standing facilities lending/borrowing rates are at the policy rate +/- 0.75 percentage points, respectively.

The Debt Office is a participant of the RIX with special conditions. As other participating institutions, the Debt Office may deposit funds in the standing facilities, but only at an interest rate of 0 percent. However, the Debt Office does not have the right to borrow from the Riksbank, as this could be considered to be monetary financing of the government debt.

In addition to the standing facilities, the central bank conducts so-called open market operations, in the form of fine-tuning transactions and issuance of Riksbank certificates. Open market operations also help guide the overnight rate closer to the policy rate while ensuring appropriate liquidity in the banking system.

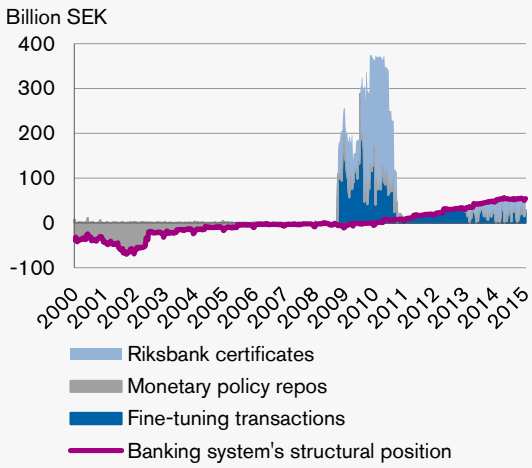
Through the fine-tuning operations, the banks' balance liquidity towards the Riksbank at the end of the day at a rate close to the policy rate. Since October 2014, due to the exceptionally low policy rate and in order to avoid negative interest rates, the transactions are conducted at the policy rate.

Despite the exceptional circumstances, there is some evidence that the intraday market has continued to function well. Each week, in order to absorb the liquidity surplus in the short term interest rate market, the Riksbank issues weekly certificates at the repo rate. The banks are allowed to buy and sell the certificates within the week against a fee, but not on the Bid Submission Date.

The banking system has not always had a liquidity surplus towards the Riksbank. Until mid-2008 the banking system had a liquidity deficit. The Riksbank used weekly monetary policy repos to supply liquidity to the banking system. Since 2010, the banking system instead has a structural liquidity surplus.

This surplus is partly due to the steady decrease of the public's demand for banknotes. In addition, every year in the past decade the Riksbank has transferred on average SEK 5.5 billion in profit distributions to the central government. These distributions increased the liquidity available to the institutions in the RIX and contributed to the overall liquidity position of the banking system towards the Riksbank. which currently stands at about 54 billion kronor.[1]

Sturctural liquidity and open market operations, SEK Billion



[1] *The Riksbank operational framework for the implementation of monetary policy - a review, Riksbank Studies, March 2014*

8 On-lending in foreign currency

This chapter describes the Debt Office's on-lending in foreign currency to the Riksbank and to other states.

On-lending to the Riksbank amounts to somewhat more than SEK 200 billion. This borrowing is concentrated in large benchmark loans in the capital market with maturities of up to five years. The choice of currency and maturity depends on market conditions. The loans to the Riksbank normally have the same amounts, maturities, currencies and interest rates as the bonds issued by the Debt Office.

Bond borrowing amounted to SEK 59 billion, spread over four USD loans corresponding to USD 8.5 billion.

In addition the Debt Office refinanced continuously an outstanding stock of about SEK 50 billion in commercial paper for the Riksbank.

On instructions from the Government, the Debt Office has also provided credit facilities for Ireland as decided by the Riksdag. The Debt Office does not conduct any earmarked borrowing for on-lending to other states. The payments made by the Debt Office in connection with lending to states, government agencies and state-owned companies are handled like any other payments within central government. On-lending to Ireland amounted to EUR 600 billion on 31 December 2014.

9 Swaps

This chapter presents how the Debt Office uses swaps and forward exchange agreements in order to achieve the desired exposure in the central government debt. The derivative instruments used to handle currency conversions are discussed in more detail in section 7.2 on liquidity management.

The Debt Office uses an 'overlay portfolio' of derivative instruments to achieve the exposure in currencies and maturities established in the Government's guidelines and the Debt Office's *Financial and Risk Policy*. Derivatives in the management of the central government debt enable the Debt Office to be more flexible in its underlying financing.

9.1 Interest rate swaps

Interest rate swaps are used to shorten the interest rate refixing period of the debt. By entering into interest rate swaps the Debt Office is able to issue more in bonds and borrow less at short maturities thus reducing the refinancing risk.

Interest rate swaps are also used along with basis swaps in Swedish kronor and foreign currencies in order to create currency exposure and maintain the foreign currency share of 15 per cent of the debt.

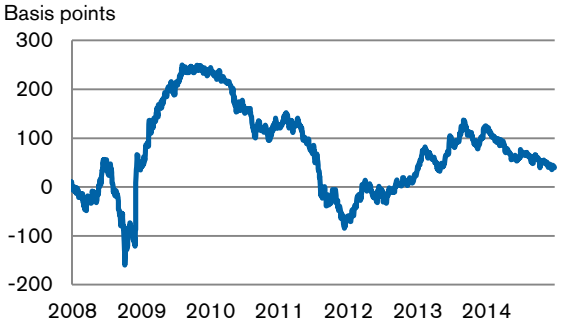
Policy

- The maturity of the swaps is adapted to the maturity of the government bonds issued during the year.
- The swap transactions are spread evenly over the year.

The swaps help to reduce the expected cost of the debt by making it possible to shorten the interest rate refixing period. At the same time, the Debt Office can maintain good liquidity in the market for government bonds. which also contributes to lower costs.

Over time, short interest rates are expected to be lower than interest rates with long maturities, i.e. the yield curve tends to have an upward slope. The figure below shows the slope of the swap curve. which has been positive on average.

Figure 27 Slope of the swap curve between three months and five years



It would probably be difficult to achieve the same interest rate refixing period without swaps by replacing long borrowing with short borrowing. The market for T-bills is not as deep as the market for government bonds and the refinancing risk would be too great.

Interest rate swaps

An interest rate swap is an agreement to swap a fixed interest against a floating interest with a counterparty. The Debt Office uses interest rate swaps to shorten debt duration. This is done in the following way:

1. The Debt Office issues a government bond with, for example, a ten-year maturity and a fixed coupon rate.

2. The Debt Office receives a fixed interest rate and pays a floating three-month interest rate (3M Stibor) in an interest rate swap for ten years.

As a result of the swap transaction, the Debt Office pays a floating rate on the government bond instead of a fixed rate for ten years.[1]

[1] *The fixed swap rate is higher than the fixed interest rate on the government bond. Therefore, Debt Office pays 3M Stibor with a deduction that corresponds to the difference between the swap and the bond rate.*

Deliberations during the year

In 2014 the Debt Office swapped a total of SEK 20 billion of bond borrowing to short interest rate exposure in Swedish kronor. The volume is slightly larger than was planned at the start of the year. The reason for the increase is that the borrowing requirement was less than expected at the same time as borrowing in government bonds was unchanged. The share of long borrowing was therefore greater than estimated, and this made the interest rate refixing period longer. The swap volume was adapted to bring the interest rate refixing period to the middle of the interval of 2.7-3.2 years.

Result of activities

The average swap spread in the SEK 20 billion of interest rate swaps entered into during the year was 36 basis points. The swap spread gives the difference between the interest rate on a swap and the interest rate on a government bond with the same maturity.

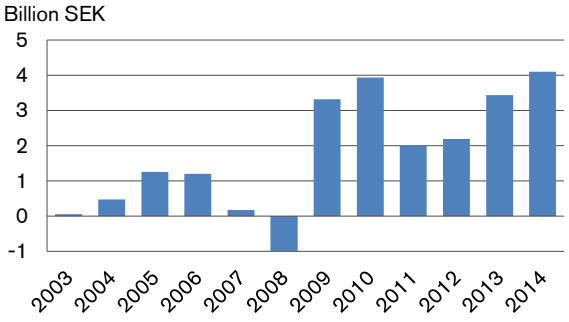
The Debt Office also entered into more than SEK 9 billion of interest rate swaps together with basis swaps where the floating interest rate in Swedish kronor was exchanged for a floating interest rate in the foreign currency, see section 9.2 below. For these swaps the swap spread was 35 basis points.

The result of the swaps depends on the difference between the fixed interest rate that the Debt Office receives and the floating Stibor interest rate that the Debt Office pays until the swap matures. If the Stibor interest rate is lower on average than the fixed interest rate the swap gives a saving. The swaps made in 2014 had an average maturity of just less than seven years. It will therefore be some time before the final result of these swaps can be calculated.

The figure below shows the calculated result since the introduction of swaps in Swedish krona borrowing in 2003. The result corresponds to the difference between the floating interest payments made by the Debt Office and the fixed interest payments received by the Debt Office so far in the swaps.

Since it started in 2003, the use of swaps has reduced the cost of central government debt by SEK 21 billion if the borrowing in government bonds is taken for granted. It should be noted here that only part of this result has been realised. The final result of the outstanding swaps cannot be calculated until they mature in a number of years.

Figure 28 Net cash flow in interest rate swaps



In 2014 the calculated result increased by SEK 4.1 billion. This is because the three-month Stibor was much lower during the year than the average fixed interest rate that the Debt Office receives in the swaps.

9.2 Basis swaps

By using cross currency basis swaps from Swedish kronor to foreign currencies and a currency exchange, the Debt Office can translate loans in Swedish kronor into exposure in foreign currencies; see the fact box on page 29. This is done to achieve the benchmark for the foreign currency debt share of 15 per cent.

Policy

- The maturity of the swaps is adapted to the maturity of the government bonds issued during the year.
- The swap transactions are spread evenly over the year.

Deliberations during the year

In 2014 interest rate swaps of more than SEK 9 billion were entered into along with a basis swap in which the floating rate in Swedish kronor was exchanged for a floating rate in foreign currency. The volume of swaps in foreign currency borrowing decreased slightly during the year compared with the assumption at the start of the year. The main reason was a smaller net borrowing requirement and therefore a smaller central government debt than expected. The volume of swaps and foreign currency loans is adapted to keep the share of the foreign currency debt at the benchmark of 15 per cent.

In 2014 pricing continued to be favourable in Japanese yen and Swiss franc compared with euro. During the year the Debt Office entered into swaps

for more than SEK 8 billion in Japanese yen and SEK 1 billion in Swiss francs.

The spread to the Stibor interest rate in a basis swap from Swedish kronor to euro also continued to decrease in 2014. This means that it became less favourable to swap SEK borrowing to EUR and, as a result, no swaps to euro were entered into during the year.

Result of activities

In an evaluation of basis swaps between Swedish kronor and various currencies, pricing was most favourable in JPY and CHF. During the year the Debt Office has therefore entered into basis swaps between Swedish kronor and both these currencies in order to maintain the currency exposure. As a result, it has been possible to obtain a higher spread to Stibor than if the Debt Office had entered into basis swaps from Swedish kronor to euro.

A comparison of basis swaps in Japanese yen and in Swiss francs with basis swaps in euro shows that the Debt Office has obtained a spread of about 10 basis points.

Table 15 Currency exposure via swaps

Basis points	2010	2011	2012	2013	2014
SEK/EUR	-73	-97	-100	-66	-
SEK/JPY				-123	-54
				-	
SEK/CHF				93	-34
Of which interest rate swaps	**-29**	**-65**	**-67**	**-46**	**-36**

The table shows the cost of currency exposure via swapped bonds expressed as basis points compared with Libor interest rates in the various currencies. The difference in relation to Libor is explained both by the swap spread in Swedish kronor and by the spreads in the basis swaps.

9.3 FX Forwards

FX Forwards are used to achieve a particular distribution between different currencies in the foreign currency debt. The Board of the Debt Office establishes the distribution of the foreign currency debt between currencies in its *Financial and Risk Policy*.

Foreign currency debt arises when the Debt Office issues loans in foreign currencies, mainly US dollars and euro, and then exchanges the amount borrowed into Swedish kronor. As described in the previous section, a large part of the foreign currency debt also comes from basis swaps.

This means that the underlying currency exposure mainly consists of US dollars and euro. The Debt Office then uses FX Forwards to adjust exposure in different currencies in line with the benchmark laid down. The figure below shows the currency composition of the underlying currency debt and the benchmark.

Figure 29 Currencies in the underlying foreign currency debt

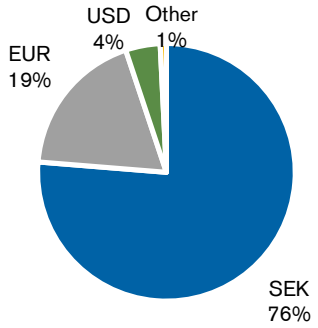
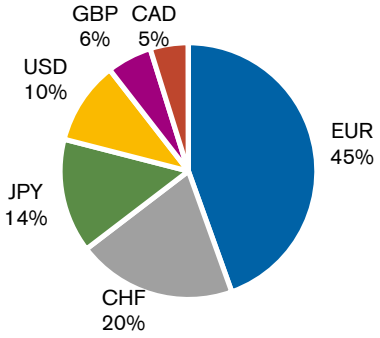


Figure 30 Currency composition according to the benchmark



Policy

- In the first place. FX Forwards are used to adjust and maintain exposure in foreign currencies in accordance with the currency benchmark. Basis swaps in combination with a currency exchange can also be used depending on market conditions.
- The Debt Office's running FX Forwards with an average maturity of 3 months are included to maintain the maturity of 0.125 years decided by the Government and they are replaced with new FX Forwards when they mature in order to maintain the mix of currencies.

Market conditions and deliberations during the year

The market for FX Forwards has functioned well during the year. The markets where the Debt Office has exposure are generally very deep, so large volumes can be handled without any impact on price.

10 Positions

This chapter describes the conditions for and the result of the Debt Office's position-taking in foreign currency in 2014

Policy

The Debt Office continuously changes the interest and currency exposure of the foreign currency debt in order to try to reduce costs and risks in this way. By offsetting changes in the exposure of the central government debt that arise as a result of changes in financial markets, risks can be limited and costs reduced.

These activities are conducted both internally and with the assistance of external managers. Diversification in risk-taking helps to limit the risks in position-taking.

Current position-taking

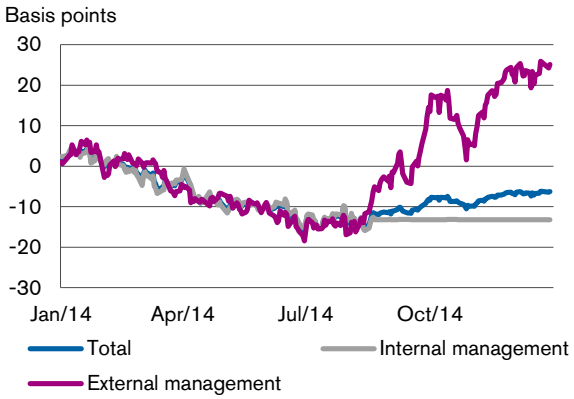
Current position taking refers to the internal and external management. In addition, the Debt Office can also decide on special positions and these decisions are taken by its Board.

The overall result of current position-taking in 2014 was SEK -125 million. This loss means that the interest costs on the central government debt increased by about one basis point (0.01 per cent). The negative result is mainly explained by positions for rising interest rates. Currency positions made a positive contribution to the result.

At the end of August the Debt Office decided to put a ceiling on aggregate losses in the current administration. In conjunction with this a decision was also taken to conduct an in-depth evaluation of the positions and the mandate for position-taking. Since the aggregate losses were close to the ceiling and it was not certain how the future mandate would be formulated, it was decided to wind down all positions so as to be able to conduct the evaluation in an orderly fashion.

In the autumn a new structure was adopted containing an automatic limit on losses that limits losses for a rolling 12-month period to SEK 250 million. The mandate begins to be narrowed as soon as half of that level has been reached. The new system came into operation in January 2015.

Figure 31 Result of position-taking



Internal current position-taking

Internal position-taking focused during the year on the difference in growth rate between the US and Europe. A higher growth rate in the US economy, and therefore a stronger recovery than in Europe, indicated that monetary policy in the US would be made tighter than in the euro zone. This ought, in turn, to have led to rising interest rates in the US and stronger dollar in relation to the euro.

The Debt Office did, indeed, take positions for higher interest rates against the background of the strong development of the US labour market. Even though developments throughout the year were consistently stronger than expected, interest rates fell, leading in turn to losses in the interest rate positions. The US ten-year interest rate fell during the year from 3 per cent to 2.15 per cent. In contrast, positions for a stronger dollar gave a positive result during the period up until the autumn. However, the strong reinforcement of the dollar in the autumn took place after the Debt Office had closed its positions.

External managers

The performance of the Debt Office's external managers was good during the year. Their aggregate gains were SEK 85 million. After a negative start to the year the second half was positive. Positions for a reinforcement of the dollar also gave gains for the external managers. while positions for high interest rates entailed losses.

During the second half of the year their interest rate positioning swung to a more neutral position.

The individual results show an unusually high spread.

Special position

In the closing weeks of 2014 a special position was initiated that locked in negative interest rates on maturities of up to three years in Swiss francs. This position was taken in order to reduce the risks in debt management. At the turn of the year about two-thirds of the debt in Swiss francs had been hedged. The remainder of the debt was hedged in the initial weeks of 2015. As a result the average interest rate paid by the Debt Office has been hedged at -0.16 per cent in the next few years. A negative interest rate means income.

In technical terms, the lock consists in the Debt Office paying a fixed interest rate in an interest rate swap and receiving a floating interest rate. The floating rate received corresponds to the floating rate that the Debt Office pays for the debt in Swiss francs. This measure has been taken as part of position-taking but with an explicit insurance purpose. This position itself may show a negative market value. However, this is matched in full by the fact that the costs of the underlying debt will be reduced by just as much throughout its term.

Evaluation of the activities in the long term

The result of the Debt Office's position-taking varies from year to year and is therefore evaluated in five-year periods. In 2009–2013 the average profit was SEK 1 billion per year on average. The strategic position taken for a stronger Swedish krona in 2008–2011 accounts for by far the largest contribution.

The external management contributed a surplus of SEK 59 million per year. The ongoing internal management gave a deficit of SEK 181 million per year. See the table below.

Table 16 Result of position-taking

Sek million	2010	2011	2012	2013	2014	Total	Average
Own	5 475	88	-176	235	-271	5 350	1 070
of which board decisions	6 061	250	0	0	-55	6 256	1 251
of which running	-586	-163	-176	235	-216	-905	-181
External	264	-1	-24	-35	90	294	59
Total	**5 739**	**86**	**-200**	**200**	**-181**	**5 644**	**1 129**

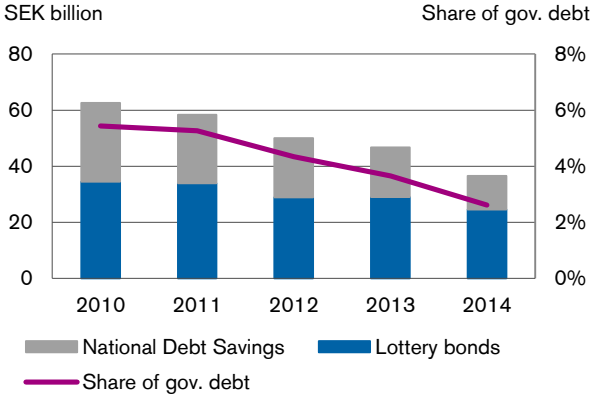
11 Retail borrowing

The result of borrowing in the retail market is presented here. The objective is to borrow at a lower cost than in the institutional market.

11.1 Smaller surplus from the retail market

The Debt Office borrows not only in the institutional market but also from private individuals and other small investors who have placed money in lottery bonds and National Debt Savings. At the end of 2014 the retail market financed 2.6 per cent of the central government debt. which is a decrease of 1.0 percentage point during the year.

Figure 32 Retail market share of central government debt



Retail market borrowing reduced the cost of the central government debt by SEK 71.0 million in 2014. This can be compared with SEK 97.3 million in the previous year. The reasons for the smaller surplus are that lower interest rates reduced revenue margins and that the outstanding volume shrank. For the five-year period 2010–2014 the overall cost saving was SEK 622.4 million.

Table 17 Cost saving, retail borrowing

SEK million	2010	2011	2012	2013	2014
Lottery Bonds	171.0	130.5	125.7	80.5	70.8
National Debt Savings	12.0	11.3	3.7	16.7	0.2
Total savings	**183.0**	**141.8**	**129.4**	**97.3**	**71.0**

New lottery bonds despite record-low interest rate

The result for lottery bonds decreased by SEK 9.7 million to SEK 70.8 million. The main reason for the deterioration is that the bonds issued during the year were sold with a lower revenue margin that those that matured.

Lottery bond 14:1, which was sold in April, had a term of five years. The lottery interest rate was 0.80 per cent after tax. which gave a margin of 0.37 percentage points to the underlying government security interest rate. When sales of lottery bond 14:2 were to begin at the end of October, the interest rate had fallen further and the bond term had to be set at seven years to make it possible to draw up a prize plan and go ahead with the sale. The lottery interest rate was 0.60 per cent before tax and the margin 0.02 percentage points.

Lottery bond 14:1 will give a total cost saving of about SEK 20 million during its five-year term. while 14.2 was sold at a loss of about SEK 16 million.

Outflow from National Debt Savings after closure decision

The result for National Debt Savings decreased by SEK 16.6 million to a profit of SEK 0.2 million. The reason is a combination of lower revenue margins and strong outflows.

Since the Riksbank reduced the repo rate to zero at the end of October, the interest rate on National Debt Savings accounts with a floating rate has been 0.01 per cent. This gives an additional cost of one hundredth of a percentage point instead of the normal cost saving of 0.25–0.35 percentage points compared to alternative borrowing. The other factor is that deposits have decreased. In May 2013 the Debt Office decided to close down National Debt Savings with a floating rate on account of declining interest among customers. The money still on deposit at the end of 2015 will be repaid. After this decision the outflows have accelerated and in 2014 the outstanding volume decreased by SEK 5.8 billion. Fixed-interest accounts were already closed for new deposits in 2012, but existing fixed-

interest accounts continue to run to their original due dates.

Smaller market share

At the end of the year lottery bonds and National Debt Savings accounted for 2.3 per cent of the interest savings market in Sweden (bank deposits, fixed income funds and private bonds). This is a reduction of 0.7 percentage points during the year. Lower deposits with the Debt Office are the main explanation.