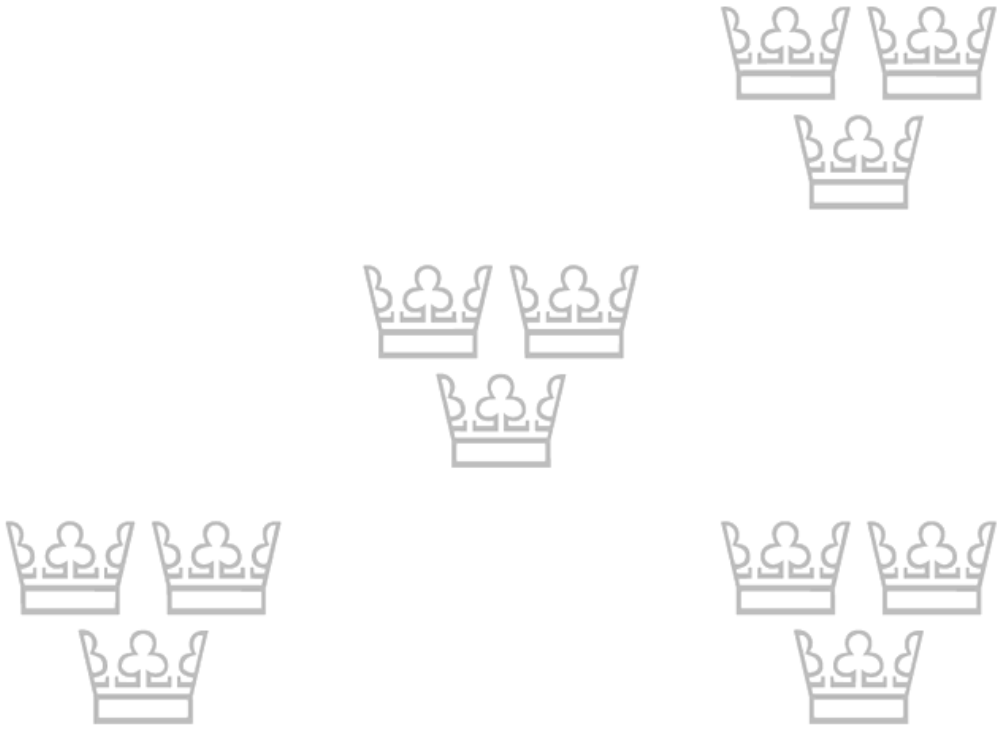
RIKSGÄLDEN
SWEDISH NATIONAL DEBT OFFICE

Ref 2012/579
22 February 2012

Basis for evaluation of central government debt management



Contents

1 Objectives of central government debt management

The Debt Office is responsible for managing the central government debt and raising new loans for the state, mainly by issuing government bonds and T-bills. These are purchased primarily by funds, insurance companies and financial institutions. A minor part of the central government debt is funded through savings products targeted on private individuals and other small investors. The Debt Office participates in both the Swedish and foreign fixed income markets.

The overarching goal for central government debt management is to minimise the long-term cost of the central government debt without taking too great risks. Furthermore, this management shall take place within the framework of the requirements set by the monetary policy. The Debt Office shall also contribute to improving the function of the market for government securities. The better the market works, the more investors will be prepared to pay for the securities we sell, and the lower the state's borrowing costs will be. Market and debt maintenance are therefore part of the Debt Office's task. The Debt Office also engages in active management of foreign currency with a view to reducing the costs of central government debt.

Central government debt management takes place in accordance with the annual guidelines adopted by the government according to proposals from the Debt Office. These guidelines specify the benchmarks for the composition and maturity of the central government debt.

The largest part of the central government debt consists of nominal loans in SEK. Otherwise, the central government debt consists of inflation-linked krona debt and foreign currency debt. Distributing the central government debt over several types of debt is one way of reducing the risk of the central government debt.

The maturity of the central government debt is stated in terms of average interest rate refixing period. The benchmark for the maturity of the debt acts as a restriction for borrowing. Since the yield curve generally has a positive slope, it is more expensive to borrow in long maturities. On the other hand, greater risk is associated with short-term borrowing, since new loans must be raised every year on terms that are not known in advance. The asset managers who lend to the central government mainly seek investments with long maturities. It is therefore not reasonable to borrow too much for short maturities.

The benchmark set by the Government for the average interest rate refixing period is therefore based on an assessment of the required balance between cost and risk.

Within the framework of the government's guidelines, the Debt Office makes difference strategic decisions relating to management and borrowing. This concerns, for example, how to achieve the debt's overall interest rate refixing period, the size of the interval that should be around the set benchmarks, as well as the currencies to be included in the foreign currency debt and their respective shares. The Debt Office is also able to make decisions on interest rate and foreign currency positions.

Guidelines for 2011

According to the guidelines for 2011, the composition of the central government debt shall be steered towards:

- 15% foreign currency debt (±2 percentage points)
- 25% inflation-linked krona debt (long-term)
- 60% nominal krona debt (residual)

The maturities for the different types of debt shall be steered towards:

- Foreign currency debt: 0.125 years
- Inflation-linked krona debt: 8-10 years
- Nominal krona debt:
  Maturities up to 12 years: 3.1 years
  Maturities over 12 years: maximum SEK 65 billion

The limit for active management was SEK 450 million measured as daily Value-at-Risk at 95% probability. The risk limitation applies to all positions except those relating to the SEK exchange rate. The Debt Office may take positions in SEK in relation to other currencies of no more than SEK 50 billion.

According to the guidelines, we shall contribute to reducing the costs of the central government debt by retail market borrowing. The goal is to achieve the greatest possible savings in relation to borrowing in the institutional market.

2 Costs and risks of central government debt management

2.1 Interest payments

Interest payments on central government debt in 2011

Interest payments on the central government debt amounted to SEK 34.1 billion in 2011. This is SEK 1.9 billion less than the appropriation, which was SEK 36 billion. Compared to 2010, interest payments increased by SEK 10.8 billion.

Primarily, interest payments on loans in SEK are higher. This is mainly due to the fact that short-term interest rates were higher than in 2010. Also, lower premiums in issues contributed to the total interest payments increasing compared to 2010. This is primarily attributable to the Debt Office's introduction of a new ten-year reference loan in 2011. The coupon rate of the new loan was closer to the market rate than that of the equivalent reference loan in 2010.

The effect of higher interest payments on loans in SEK and lower premiums in issues was partly counteracted by the fact that currency losses decreased compared to 2010. In addition, the central government debt decreased in 2011 which also contributed to lower interest payments.

2.2 Average running yield

The cost of the central government debt is defined as accrued interest payments and is measured in terms of running yields. The running yield is normally referred to as the "yield to maturity", i.e. the rate used to calculate the price of a bond. Coupons and premiums/discounts are thus accrued evenly over maturity. The average running yield is therefore an appropriate measure of the cost of the central government debt, in particular when we comply with the principle of retaining the instrument to maturity.

FIGURE 1. AVERAGE RUNNING YIELDS

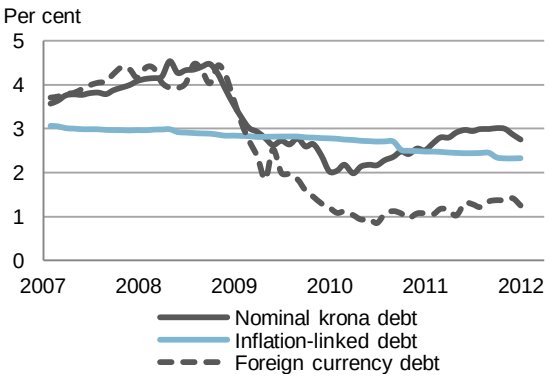


Figure 1 shows the average running yields for different types of debt. Please note that the running yields are not comparable. The average running yield for the inflation-linked debt is based on real running yields. In order to compare with the cost of the nominal debt, the real interest rates must be adjusted for inflation. The cost of loans in foreign currencies is not determined solely by running yields. In order to compare with the cost of debt in SEK we must take into consideration how the exchange rate in relation to SEK developed during the term of the loans.

Nominal debt in SEK

The nominal debt in SEK consists mainly of government bonds, T-bills and interest rate swaps. Interest swaps shorten maturity with the expectation of reducing the cost of the central government debt at the expense of increased interest rate refixing risk.

At the end of 2011 the average running yield for the outstanding nominal krona debt was 2.7%. This represents an increase of 0.2 percentage points compared to the previous year. The increase is due to higher short-term interest rates. In the first half of the year the average yield increased as a result of the increased key policy interest rate. In the latter part of 2011 interest rates decreased again, among other things, as a result of the Riksbank's view of the economy and interest rate path. The average yield for T-bills reached 1.9% as a maximum in 2011 and was 1.3% at year end.

The long-term interest rates, however, were on average somewhat lower than the previous year. As of September the ten-year interest rate was steadily below 2% and as low as approximately 1.6% at year end. This was the lowest level ever, as far back as we have statistics. During the year, we have sold nominal government bonds for the equivalent of SEK 41 billion at an average yield of 2.42%.

The running yield for government bonds and the floating rate for interest rate swaps is continuously reset according to the market rate/yield. In bonds we lock in the running yield over a significantly longer term. Any change in short-term interest rates therefore has a faster impact on the total cost of the central government debt than a change in the long-term interest rates.

Inflation-linked debt in SEK

The average running yield for the outstanding stock of inflation-linked bonds decreased by 0.15 percentage points to 2.3%. During the year, we sold inflation-linked bonds for SEK 6 billion at an average yield of 0.55%.

The cost of the bonds also depends on the rate of inflation. The adjustment to inflation of the inflation-linked bonds follows the consumer price index which can be expected to follow the inflation targets of the Riksbank in the long term.

The difference between nominal and real running rate is the so-called break-even inflation. Break-even inflation represents the average annual inflation rate which yields the same cost for a real and a nominal loan with the same term until maturity. The difference reflects the market's inflation expectations but it is also affected by inflation-linked bonds being less liquid than nominal government bonds

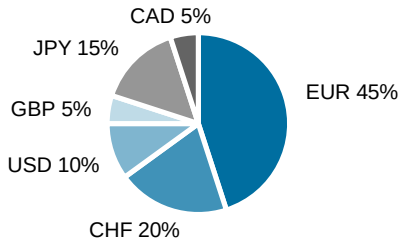
Inflation adjustment for real bonds was 2.6% during 2011 measured as the development of the consumer price index.[1]. This represents a cost of approximately SEK 5 billion. The actual increase in the accrued inflation compensation in the inflation-linked debt, however, was only SEK 3.4 billion during the year. This is attributable to exchanges we made where we bought back old loans with high accrued inflation compensation. The net effect of the exchanges was therefore that we amortised the inflation-linked debt.

Foreign currency debt

The maturity of the foreign currency debt is on average 1.5 months, which means the average yield is quickly adjusted to actual market rates. At year end the running yield was approximately 1.5%, which is 0.5 percentage points higher than the previous year.

Interest payments for the foreign currency debt increase if the Swedish krona is weakened. This means foreign currency losses arise on maturing loans while coupon payments are higher in SEK. If the Swedish krona is strengthened, the actual cost is instead lower than indicated by the average running yield.

FIGURE 2. DISTRIBUTION OF FOREIGN CURRENCY DEBT



[1]*Inflation was 2.6% on average for the period October 2010 up to and including September 2011. Inflation-linked loans are linked to CPI with a three-month lag.*

The distribution of the foreign currency debt is based on a benchmark which the government allows the Debt Office to set. The current benchmark has been in place since 2009, see figure 2.

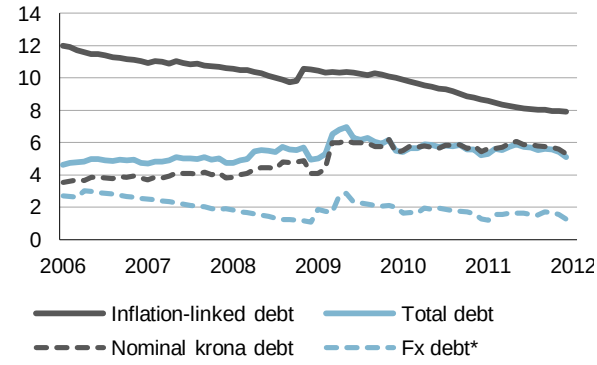
The Swedish krona weakened in relation to our benchmark for foreign currency debt distribution by over 1.2% during 2011. The share of Japanese yen, which is 15% of the foreign currency debt, has strengthened in relation to the Swedish krona by approximately 8%. The Swiss franc rose by a little over 2%. This strengthening was caused by the financial turmoil which created a capital inflow in Japan and Switzerland. Including unrealised exchange rate changes, the foreign currency debt increased by approximately SEK 2 billion.[2] Since 2009, however, the Swedish krona has strengthened by nearly 11% in relation to the foreign currency benchmark.

2.3 Risks in central government debt management

The risk in costs cannot be summarised simply as one single measurement. Instead, different measurements describe different types of risks, such as the interest rate refixing risk and refinancing risk. Interest rate refixing risk means the risk that the interest on the debt will rise as a result of higher market rates. Short-term loans and loans with variable rates of interest are refixed continuously according to the current market rate. The higher the share of short-term and variable loans, the higher the interest rate refixing risk in the debt. Refinancing risk means the risk that it will be difficult or costly to replace maturing loans with new ones.

FIGURE 3 . REMAINING MATURITY OF THE CENTRAL GOVERNMENT DEBT

Years



** Bonds and commercial paper*

Refinancing risk

Recent years have shown that countries with large budget deficits and borrowing requirements may be subject to substantial refinancing risks. For Sweden the refinancing risk

[2] *The net debt, i.e. including receivables in on-lending.*

is very low. This is partly because we do not have the same central government financial problems, but also because we can limit the refinancing risk in management. We finance future maturities continuously over a long period, as opposed to many other central government debt offices who replace maturing loans on one single occasion. We do this by distributing the loans evenly over time in our regular auctions and liquidity management.

We also strive to achieve an even maturity profile in the debt. In this way we are able to limit the volume of maturing loans in individual years. Since we have regularly maturing loans we can efficiently handle changes in the debt size as a consequence of a budget surplus. If the debt is reduced, we can match the budget surplus against the maturity. Without maturing loans we would be forced to buy back outstanding loans, which would be an expensive alternative that we prefer to avoid.

Another important reason why the refinancing risk is small is that the debt is distributed over different types of debt. By issuing inflation-linked bonds and foreign currency loans as a complement to nominal borrowing in SEK, we can reach a broader investor base. This entails a reduced vulnerability in borrowing. Our primary focus is the domestic bond and money market, but with a presence also in the intentional capital market we can avoid a one-sided concentration on the Swedish market. Market and maturity diversification contribute jointly to reducing the risk in the central government debt.

The refinancing risk of the debt is usually described with a maturity measure, see figure 3, or with a maturity profile.

Interest rate refixing risk

We use variations in the running yield as a measure of the interest rate refixing risk. Since the debt is held until maturity, variations in the running yield is a better measurement than e. g. duration, which measures how the debt's market value is affected by interest rate changes.

Volatility in the average running yield was below 0.5 percentage points from 2003 up until the beginning of 2008. During the second half of 2008 and until 2010, variations increased due to the financial crisis. Volatility, measured as a 12-month moving average of monthly changes, reached a maximum of approximately 0.15 percentage points, which represents 0.50 percentage points in annual variation.

FIGURE 4 . STANDARD DEVIATION IN AVERAGE RUNNING YIELD (MONTHLY CHANGES)

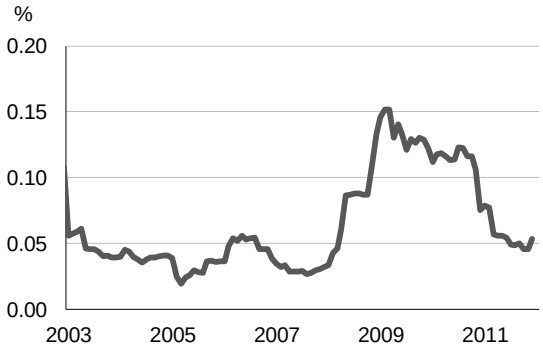


TABLE 1. AVERAGE RUNNING YIELDS (ARY)[1]

	Nominal bonds			T-bills[4]			Inflation-linked bonds[5]		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
Total debt[2] (SEK billion)	505	557	547	115	92	72	200	212	216
Borrowing[3](SEK billion)	110	58	41	303	307	229	3	8	6
ARY total debt (%)	4.15	3.99	3.83	0.13	1.03	1.30	2.77	2.47	2.31
ARY borrowing (%)	3.17	2.63	2.42	0.43	0.47	1.60	1.46	0.51	0.55

[1] In order to compare the running yield for nominal and inflation-linked instruments, the running yield for inflation-linked bonds must be adjusted for inflation.

[2] Assumed loans are not included.

[3] Volume issued in auctions

[4] Including liquidity bills.

[5] Total debt for nominal bonds includes accrued inflation.

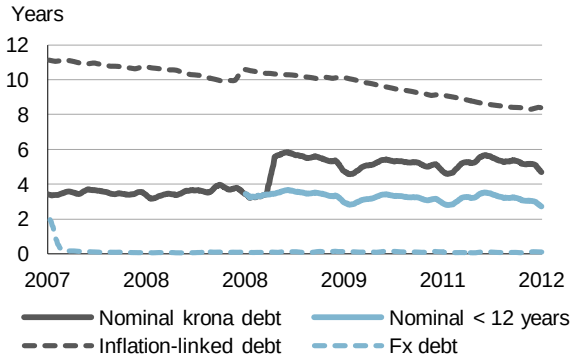
3 Maturity and debt composition

3.1 The maturity of the debt

The government decided in the 2011 Guidelines for Central Government Debt Management that the maturity benchmark for the nominal krona debt was 3.1 years for maturities up to and including twelve years. This benchmark represents a marginal decrease from 3.2 years in 2010. The decrease was attributable to operative reasons in regard to the prevailing conditions in the swap market.

For the outstanding loan instruments with maturities longer than twelve years, the government decided that the ceiling should be SEK 65 billion, the same level as in last year's preliminary guidelines for 2011. The interest rate refixing period for the entire nominal krona debt is around 5 years.

FIGURE 5. THE INTEREST RATE REFIXING PERIODS OF TYPES OF DEBT, 30 DAYS MOVING AVERAGE



The division of the steering system is due to us granting a 30-year loan in 2009. Such a long-term bond has great impact on the average maturity of the debt even though this issue is small in relation to the rest of the debt. A maturity measure which includes the 30-year bond could therefore give a misleading picture of the interest rate refixing risk.

Long-term loans also do not form part of our continuous financing. Normally we only issue loans with maturities up to twelve years. Loan instruments with longer maturities may be issued occasionally where there is a strong demand for long-term maturities. Against this background we decided that it would not be meaningful to include maturities exceeding twelve years in the maturity benchmark.

The maturity benchmark for the inflation-linked debt was replaced with an interval of between 8 and 10 years. The intention was not to steer the maturity in any particular direction but to increase the funding flexibility. It is difficult to steer the maturity in the inflation-linked debt. This is due to, for instance, the fact that we have few outstanding loans. The issue volumes are also small in relation to the size of the stock, so that new borrowing has little effect on the average maturity. We cannot adjust the interest rate fixing period via derivatives like in the nominal debt.

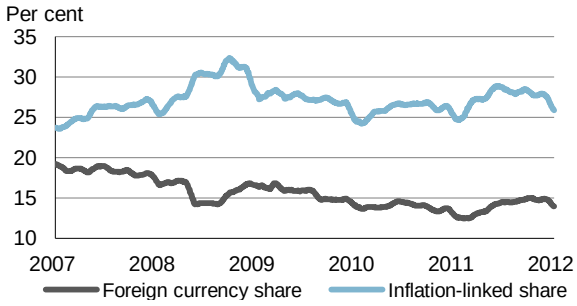
For the foreign currency debt the government decided that the interest rate fixing period would be 0.125 years.

3.2 Share steering

For 2011, the Government decided that the central government debt should consist of 25% of inflation-linked debt in the long-term. The share of foreign currency debt was to be 15%, and the remaining part of the central government debt would consist of nominal krona debt. The decision was made in accordance with the Debt Office's proposal and entails no change compared to 2010.

The share of foreign currency debt amounted to 14% on average during 2011. The most important cause of the share being below the benchmark was that we had substantial foreign currency assets at the beginning of the year. The assets were due to the fact that a claim against the Riksbank had matured and there was no equivalent debt with a matching maturity date.

FIGURE 6. DEBT SHARES 2007–2011, 30-DAY MOVING AVERAGE



The share of inflation-linked debt was greater than the benchmark; on average 27% during 2011. It is difficult to steer the share of the inflation-linked debt as there is no developed derivative market available. The annual change in the stock is small since the period between maturing loans is relatively long, and new borrowing is very limited. This means that the share of inflation-linked debt is primarily affected by how the size of the central government debt develops. Any measures to reduce the share would probably be expensive. The share also decreases automatically when an inflation-linked loan matures. The benchmark of 25% is therefore made in the long-term and we can allow the share to exceed the benchmark without having to take short-term measures.

The debt crisis deepens in Europe

In Europe, 2011 was characterised by debt problems. The central government debt interest rates increased markedly in some countries. Primarily, Greece, Ireland and Portugal experienced problems. They were dependent on EU and IMF loans. Gradually, Spain was also affected by growing mistrust and was forced to borrow at high interest rates.

The ECB had to deal with Europe splitting in two during the spring. Even though the economies in southern Europe experienced increasing difficulties, the economies in especially Germany, France and the Netherlands remained strong. At the same time inflation began to rise because of increasing prices of food and raw materials. This induced the ECB to increase interest rates on two occasions to a maximum of 1.50%.

In the second half of the year, the debt crisis accelerated and Italy was also drawn into the negative speculations. Several consecutive top-level meetings were held in order to find a solution to the deepening crisis. In October the ECB introduced a number of measures to improve the liquidity for banks. At the same time, the growth engine of Europe, Germany, showed signs of slow-down and the German GNP for the second quarter was distinctly lower than expected. There was increased unease and the ECB lowered the interest rate during the last two meetings of the year.

Slow recovery despite political deadlock in the US

In the US the year started on a positive note with reduced concern for a so-called double dip. At the end of the spring and over the summer, the US experienced problems as a result of ambiguity as to the political will to deal with the budget deficit and risked hitting the debt ceiling. It resulted in S&P lowering the US's rating from AAA to AA+ with negative prospects for the first time ever.

Growth slowed down in the US also during the autumn, and in order to stimulate the economy the FED announced that the key policy interest rate would stay at the low level of 0.25% until mid-2013. The year ended with improved economic data and the risk for a recession in the US fell. Instead, the focus moved to the political deadlock after the Democrats and the Republicans failed to achieve unanimity concerning the budget.

Concerns about slow-down in China, natural disasters and the Arab Spring

China reported strong data during spring, and in autumn the expectation was that the Asian markets would contribute to the global growth with continued high economic activities. At the end of the year the expectations concerning Chinese growth were however dampened due to internal imbalances, accelerating credit expansion and high asset prices. The earthquake, tsunami and nuclear disaster which affected Japan in the spring had an impact on the economy for the remainder of the year and recovery would take time.

The Arab Spring caused vast changes in the Middle East. The oil price rose which increased concern for a deeper recession in the oil-dependent West.

Swedish economy held up well

The Swedish economy held up well despite the turbulence in Europe. Recovery continued and the Riksbank increased the interest rate on two occasions to a maximum of 2%. The Swedish krona became stronger and was listed below SEK 9 against the Euro. Thanks to sound central government finances, Sweden has been able to avoid the austerity measures that several other countries have been forced to implement, and has become a secure investment for many foreign investors who cannot find other good alternatives. Strong demand drove down the interest rate on government bonds to historically low levels at the end of the year. The risk of the debt crisis having effects in Sweden induced the Riksbank to end the year by lowering the repo rate to 1.75%.

4 Funding

The largest part of central government borrowing takes place by the Debt Office issuing nominal government bonds and T-bills. Part of the borrowing is covered by inflation-linked bonds that provide investors with protection against inflation. The Debt Office also borrows in foreign currency, and from private individuals as well as other small investors.

In 2011 the economic recovery continued and the central government budget showed a surplus of SEK 68 billion. This is a big improvement compared to 2010 when the budget was practically balanced. Thanks to the budget surplus, borrowing decreased. At the same time we replaced a larger volume of maturing loans than the previous year. The change in central government borrowing was therefore less than the budget surplus.

The long-term borrowing requirement could be covered at low interest rates, both in relation to historical levels and compared to most other central government borrowers. Thanks to strong central government finances, Swedish government securities have become attractive to investors, not least against the background of the surrounding debt crisis. The low long-term interest rates reflect primarily gloomy global growth prospects, but also the fact that countries such as Sweden, the US and the UK, as opposed to the Eurozone countries, have their own currency and central banks.

As in previous periods with low borrowing requirements, we concentrated on nominal government bonds. Even so, the borrowing in government bonds reduced. The limited borrowing entailed that there was a concern for deteriorating liquidity in the market for government bonds. In order to contribute to improved liquidity in the market, we therefore offered exchanges to the ten-year bond as a complement to the issues.

Other funding remained at low levels. Borrowing in T-bills as well as inflation-linked bonds reduced somewhat. We did not issue any loans in foreign currency other than to refinance matured loans for the Riksbank.

In November the Government decided that the share of long-term bonds should gradually increase. In the 2012 benchmarks the SEK 65 billion ceiling for maturities exceeding 12 years was replaced with a benchmark of SEK 60 billion. In December 2011 we carried out a survey in the market to assess how we can best increase the volume of long-term loans. The dialogue with investors and primary dealers showed a marked interest for a new government bond with a 20-year maturity. We also drew the conclusion that it was desirable to quickly achieve a large outstanding volume in order to achieve sufficient liquidity in the new maturity. At the end of the year we announced that we intended to introduce a new 20-year bond via syndication in 2012.

TABLE 2. CENTRAL GOVERNMENT BORROWING

SEK billion	2007	2008	2009	2010	2011
Net borrowing requirements [1]	**-103**	**-135**	**176**	**1**	**-68**
Maturities, exchanges and buybacks etc.	**399**	**312**	**310**	**280**	**301**
Bonds in Swedish krona	91	67	122	3	56
Foreign currency bonds	17	28	59	36	70
Money market [2]	287	245	128	244	184
Private market & securities[3]	5	-27	1	-2	-9
Total	**296**	**178**	**486**	**281**	**233**
Borrowing money market	**245**	**128**	**244**	**184**	**154**
T-bills	171	139	115	85	72
Commercial paper, etc.	74	-11	129	99	82
Borrowing in bonds	**51**	**50**	**243**	**97**	**79**
Government bonds [4]	41	47	110	58	41
Inflation-linked government bonds [5]	5	3	3	8	6
Foreign currency bonds	5	0	130	31	31
Total borrowing	**296**	**178**	**486**	**281**	**233**

[1] A negative borrowing requirement means that the central government budget shows a surplus
[2] Initial stock maturing within 12 months
[3] Changes in private market loans and securities, net
[4] Avg. issue volume per auction 1.9 2.2 3.3 2.8 2.0
[5] Avg. issue volume per auction 0.5 0.4 0.5 0.7 0.8

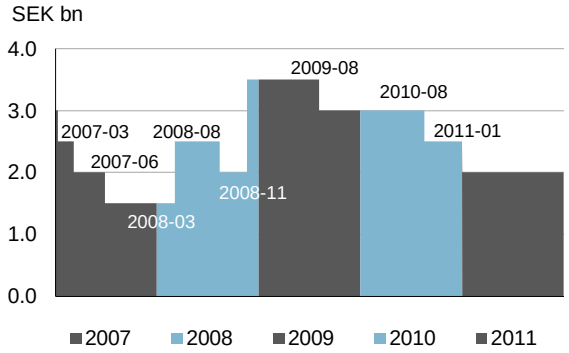
4.1 Nominal borrowing in SEK

Nominal government bonds

Most of the borrowing in 2011 was in nominal government bonds. Nevertheless, the issue volume decreased to SEK 41 billion from SEK 58 billion in 2010 due to the budget surplus. The adjustment to the lower borrowing requirement was achieved by reducing the issue volume to SEK 2 billion per auction, and by reducing the number of auctions to 16 from 21 in the previous year.

The demand for bonds was good. All auctions were over-subscribed and we had bids for an average of SEK 2.43 per offered Swedish krona, which is a little higher than the previous year.

FIGURE 7. AUCTION VOLUMES OF NOMINAL GOVERNMENT BONDS OFFERED



The Debt Office has a policy of primarily issuing in certain standard maturities, two-year, five-year and ten-year nominal bonds. This is maintained by our regularly issuing new ten-year bonds which subsequently roll down to become five-year and then two-year bonds.

In February we introduced a new ten-year bond, loan 1054 (2022). We also issued a short-term loan in August for the Riksbank, loan 1055 (2013). The loan was swapped to EUR.

TABLE 3. VOLUME ISSUED IN SEK MILLION AND RUNNING YIELD PER LOAN IN 2011

Loan	Due date	Coupon	Number of auctions	Volume issued	ARY [1]
1055	2013-08-30	1.50	1	9 500	1.52
1041	2014-05-05	6.75	1	2 000	2.39
1050	2016-07-12	3.00	2	4 000	2.08
1047	2020-12-01	5.00	2	4 000	3.29
1054	2022-06-01	3.50	11	20 999	2.74
1053	2039-03-30	3.50	1	1 000	2.17
Total				41 499	

[1] *Average running yield*

Our ambition is to quickly build up the outstanding volume in new loans to create liquidity in the market. The issues were dominated by the new ten-year bond which represented half of the borrowing in nominal bonds.

When the borrowing requirement is small it can take time to achieve the required volume in new loans. In addition to exchanges on the introduction of the new ten-year bond, we therefore decided to offer complementing exchanges during the year. We exchanged primarily from the old ten-year bond loan 1047 (2020) but also from loan 1052 (2019).' Table 4 shows that the average running yield in 2011 was a little lower compared to the previous year. However, there was a lot of variation during the year. At the beginning of the year issue interest rates were higher than average for 2010, but in the second half of the year interest rates fell because of the debt crisis in Europe and the deteriorating economic forecasts.

TABLE 4. COVER RATIO AND RUNNING YIELD FOR NOMINAL GOVERNMENT BONDS

%	2007	2008	2009	2010	2011
Cover ratio[1]	3.28	2.54	2.35	2.33	2.43
Average yield[2]	4.07	3.82	2.86	2.63	2.42

[1] *Volume of bids received in relation to volume offered; syndication 2009 not included.*

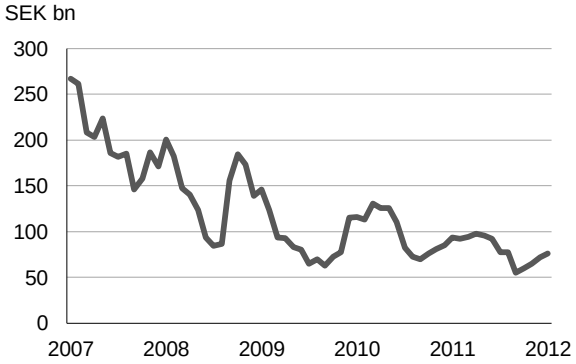
[2] *Only outright auctions; exchange auctions and syndication are not included.*

Short-term borrowing

T-bills

The average stock of T-bills was a little over SEK 80 billion in 2011, a little lower than during 2010.

FIGURE 8. DEVELOPMENT OF T-BILL STOCK 2007-2011



The demand for T-bills was sometimes limited. In two of the 23 auctions during 2011 we reduced the issue volume. This meant that a little over SEK 2 billion of the offered T-bills were not sold. However, this did not entail any problems for our funding since the short-term T-bill borrowing was replaced by borrowing in liquidity management.

We generally have large borrowing requirements at the end of the year. We therefore decided to complement borrowing in T-bills by issuing commercial paper. The currency exposure was hedged in the forward market, thus creating a replacement for T-bill borrowing. In addition, we issued a limited volume of January and February T-bills in so-called on-tap sales.

TABLE 5. COVER RATIO AND RUNNING YIELD FOR T-BILLS

%	2007	2008	2009	2010	2011
Cover ratio[1]	2.50	2.35	2.32	1.91	1.80
Average yield[2]	3.60	3.58	0.43	0.47	1.60

[1] *Volume of bids received in relation to issue volume offered.*

[2] *Only outright auctions; exchange auctions not included.*

The average running yield in the auctions was 1.6% below that of 2011 which was higher than in 2010. The increased running yields reflect the fact that the Riksbank increased the repo rate from 1.25% at the beginning of the year to 2%.

TABLE 6. CHANGE IN OUTSTANDING T-BILLS, NET INCLUDING SWAPS

SEK billion	2007	2008	2009	2010	2011
Funding in T-bills, net[1]	-110	-32	-24	-30	-13
Exchanges of government bonds for T-bills	27	0	0	0	0
Change of T-bill stock	-84	-32	-24	-30	-13
Interest rate swaps, net[2]	14	22	-13	5	11
Change of T-bill stock including swaps in SEK, net	-70	-10	-37	-25	-1

[1)] *Net of issues (excluding exchanges) and maturities during the calendar year*

[2)] *Net of swaps entered into and maturing swaps*

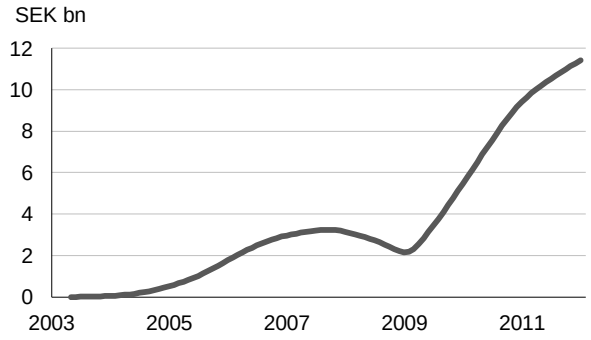
Interest rate swaps

During 2011 we swapped SEK 21 billion of the borrowing in bonds for short interest rate exposure in SEK, and SEK 13 billion for short interest rate exposure in foreign currencies. We swapped an additional SEK 9 billion to Euribor on behalf of the Riksbank. The average maturity of the swaps was the same as in bond borrowing during 2011.

When we borrow via the swap market we first issue a nominal government bond. In the next step we exchange the fixed bond yield for a variable bank interest rate in SEK (Stibor) to shorten the interest rate refixing period.

Interest rate swaps enable us to maintain a shorter maturity in the debt than would otherwise be possible. Our proposed guidelines for the maturity are based on our making extensive swaps to obtain a relatively short maturity and thus reduce the expected interest costs.

FIGURE 9. INTEREST RATE SWAPS, ACCUMULATED RESULTS



The effect on the cost depends on the difference between the fixed interest that we receive when we make a swap and the floating Stibor rate that we then pay until the swap matures. The swaps normally have a maturity of between five and ten years. Only when they have matured will we know the result. The swaps made during 2011 thus have a number of years left before the result can be calculated ex post.

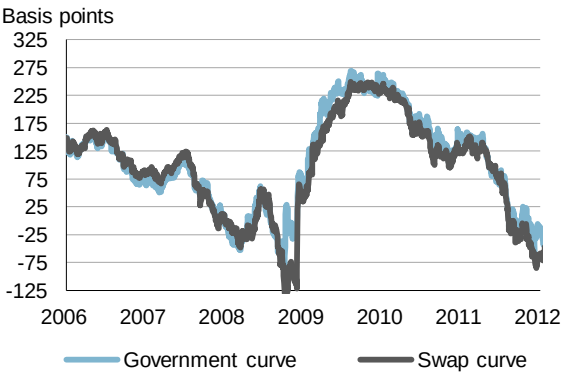
Figure 9 shows the computed outcome since we introduced swaps in krona borrowing in 2003. The outcome corresponds to the difference between the floating interest we pay and the fixed interest we have received to date in the swaps. Since the start in 2003, the use of swaps has reduced the costs of the central government debt by SEK 11 billion given the actual borrowing in government bonds.[1] In the past five years, the average cost saving has been SEK 1.69 billion per year, see table 7.

TABLE 7. SAVING PER YEAR ON OUTSTANDING SWAPS

SEK billion	2007	2008	2009	2010	2011	Average
Saving	0.17	-1.00	3.32	3.94	2.01	1.69

The cost benefit of shortening the maturity through swaps can be illustrated by the slope of the swap curve, i.e. the difference between the fixed interest we receive and the floating interest we pay. The alternative to short interest rate exposure through swaps is to replace borrowing in government bonds by T-bills. The saving we then obtain depends on the corresponding slope of the government curve. Figure 10 shows the difference between the 5-year swap rate and the 3-month Stibor together with the difference between the 5-year bond yield and the 3-month T-bill interest rate.

FIGURE 10. CURVE SLOPE BETWEEN 3 MONTHS AND 5 YEARS



In general, if the government curve is steeper over time than the swap curve, then T-bill borrowing is a cheaper alternative to borrowing through bonds and swaps. Prior to 2008, short-term borrowing though swapped bonds was generally cheaper than borrowing in T-bills. In recent years, T-bills

[1] *This amount includes the outcome of SEK 21 billion swaps which matured in the period 2003 to 2010.*

would instead have generated a greater saving than swapped bonds.

In practice, however, it is not reasonable to replace swapped government bonds with T-bills. The market for T-bills is not deep enough and it would create too great a refinancing risk. Another important reason for using swaps is also that we must protect the infrastructure and liquidity in the government bonds market.

Result of nominal krona funding

The Debt Office makes a qualitative evaluation of funding in the nominal instruments.

In our assessment, funding has worked well. This is confirmed by the surveys addressed to primary dealers and investors, see section 7.3. The interest rate that we obtained in auctions was mainly between the rates corresponding to the market's bid rate and ask rate, which may be regarded as a very good result, both with respect to borrowing costs and as an indication of a well-functioning market.

4.2 Inflation-linked funding

During 2011 the Debt Office issued SEK 6 billion in inflation-linked bonds. The outstanding inflation-linked debt increased by a little over SEK 3 billion. At the same time we bought back more than we issued in exchanges. This meant that the outstanding inflation-linked debt increased only by SEK 5 billion to SEK 216 billion.

In the light of the shortest inflation-linked bond approaching maturity, we introduced a new inflation-linked loan during 2011. Loan 3108, with the same maturity date as the nominal loan 1054 (2022), was issued for the first time on 15 September. The introduction may be considered as having been successful as we issued a total of over SEK 15 billion of the loan in the initial issue and the subsequent exchange auctions. In the exchange auctions we bought back other inflation-linked bonds which is why the net effect on the stock was small.

The share of inflation-linked debt of the total debt amounted to 27% on average during 2011. According to the government's guidelines, the share of the debt should be steered towards 25% in the long-term.

Borrowing in inflation-linked bonds was SEK 6 billion during 2011. This is a decrease compared to last year's SEK 8 billion. Even though the share is larger than the target for the inflation-linked debt, it is difficult to reduce borrowing further. A further reduction would only provide marginal space for other borrowing and risk deteriorating liquidity in the inflation-linked bonds market. The share of inflation-linked debt is also decreasing somewhat since loan 3106 matures in April 2012.

TABLE 8. CHANGE IN THE INFLATION-LINKED DEBT DURING 2011

Outstanding stock, 31 December 2010, SEK billion	211,6
Auctions	6.0
Maturing loans and net of exchanges	-5.4
National Debt Savings. inflation-linked	0.0
Assumed inflation-linked loans	0.0
Inflation adjustment	3.4
Outstanding stock, 31 December 2011, SEK billion	211.6

Real interest rates remained low during 2011. The average running yield was 0.55%. This is a little higher than in 2010, when it was 0.51%. On one occasion, we issued at a negative real interest rate. A negative real interest rate indicates that inflation is expected to exceed the nominal rate for the corresponding maturity.

TABLE 9. AUCTIONS OF INFLATION-LINKED BONDS

SEK billion	2007	2008	2009	2010	2011
Issue volume[1], SEK billion	-6.8	-1.4	-1.8	11.9	0.6
Volume sold[2], SEK billion	5	2.6	3	7.7	6.0
Cover ratio[3]	5.16	3.18	4.96	5.34	5.24
Average auction yield[4], %	1.87	1.79	1.46	0.51	0.55
BEI[5], %	2.21	2.11	1.67	1.73	1.89

[1)] The total volume issued in auction activity during the year, net after outright auctions, switch auctions and buybacks.

[2)] Total sold volume in the outright auctions excluding switch auctions and buybacks.

[3)] Bid volume submitted in relation to offered issue volume outright auctions.

[4)] Weighted average interest rate over the year in outright auctions.

[5)] Average break-even inflation in the outright auctions.

In order to compare the cost of inflation-linked and nominal borrowing with corresponding maturity, the break-even inflation is calculated (BEI). This states how high inflation must be on average during the maturity of the bond for the cost of inflation-linked and nominal borrowing to be the same. If inflation is below the break-even level, inflation-linked borrowing will have been more favourable than borrowing in nominal bonds with the corresponding maturity.

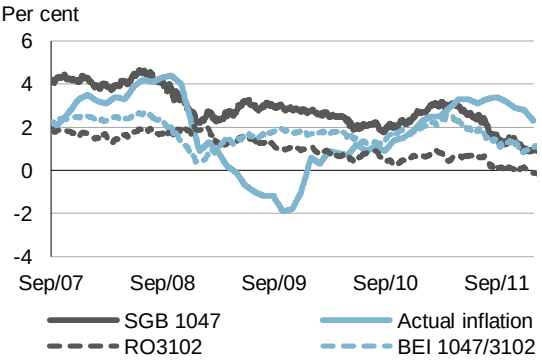
The figure below shows the development of market rates for the nominal loan 1047 (2020) and the inflation-linked loan 3102 (2020). The break-even inflation fell from around 2% to 1% in 2011. The reduction reflects deteriorating economic forecasts and thereby lower inflation expectations. A contributing factor to the fall in break-even inflation in the year might also be that the offer of nominal bonds decreased.

The actual inflation, however, increased a little over the year. Inflation adjustment for real bonds was 2.6% in 2011 measured as the development of the consumer price index.[1] Break-even inflation was 1.89% in our auctions in 2011.

[1]Inflation was 2.6% on average for the period October 2010 up to and including September 2011. Inflation-linked loans are linked to CPI with a three-month lag.

Whether the inflation-linked borrowing in 2011 is successful from a cost-perspective will be established only when the respective bonds mature and we know what the realised inflation was.

FIGURE 11. INTEREST RATES, BREAK-EVEN INFLATION AND ACTUAL INFLATION 2007–2011

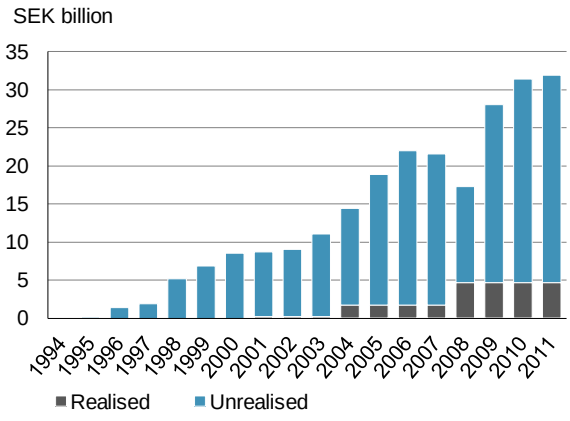


A large part of the accumulated unrealised result derives from low inflation rates in previous years. The average inflation since the beginning of 1994 until the end of 2011 has been around 1.4%, which is clearly lower than the average break-even level at which we have issued.

Result of inflation-linked borrowing

Although the rate of inflation increased in 2011, it was still lower than the average break-even level of the debt. The indicative result, measured as the cost difference between borrowing in inflation-linked and nominal bonds, increased by around SEK 0.6 billion during the year.

FIGURE 12. INFLATION-LINKED BONDS, INDICATIVE RESULTS



In Prospera's survey (see section 7) the inflation-linked market receives a low rating regarding liquidity and price information. Our assessment is that this is mainly due to small issue volumes and that many investors have a buy-and-hold strategy, which reduces liquidity in the market.

Since a few years back we have a long-term strategy of distributing inflation-linked debt over several maturities. Provided that individual issues are not too small, we hope that we will be able to contribute to improving liquidity in the market. Several outstanding loans provide increased flexibility for the Debt Office as well as for investors and primary dealers.

4.3 Foreign currency funding

When the borrowing requirement decreased, we focus on borrowing nominal government bonds. This is why we reduced borrowing in foreign currency bonds to zero. Borrowing normally takes place by our issuing bonds in foreign currency (direct foreign currency borrowing in the capital market) or by exchanging krona borrowing for exposure in foreign currency (krona/swap borrowing). In brief, krona/swap borrowing means that the interest rate on government bonds in SEK is replaced by a short interest exposure in foreign currency and that the amount borrowed is exchanged to foreign currency. See the facts on krona/swap borrowing for a more detailed description. The Debt Office may also borrow in foreign currency by issue of commercial paper with a maturity of up to one year.

Bond borrowing in foreign currency during the year has only related to refinancing of loans for the Riksbank. Overall, this amounted to SEK 31 billion. This was done by issue of two US dollar loans and one Euro loan. The two US dollar loans were raised in the first half of the year: USD 2 billion in a 2.5-year bond and USD 1.5 billion in a three-year bond. A novelty in the second loan was that the bonds in the primary market could also be sold to investors registered in the US. This was a way for the Riksbank to broaden the investor base.

A two-year EUR 1 billion loan was issued in August. We lent more foreign currency to the Riksbank shortly thereafter by selling a two-year SEK 9.5 billion government bond and swapping to Euro. In addition, we continuously refinanced outstanding stock of around SEK 19 billion in commercial paper on behalf of the Riksbank. Commercial paper was also issued as part of the liquidity management; see section 4.4.

During 2011 we also lent the equivalent of SEK 2.2 billion to Iceland. Since the loan amount was relatively small, no separate foreign currency loan was raised for this purpose.

TABLE 10. BOND FUNDING IN FOREIGN CURRENCY

SEK billion	2007	2008	2009	2010	2011
Foreign currency bonds, funding	5	0	130	31	31
Of which					
On-lending	0	0	81	26	31
Excluding on-lending	5	0	49	6	0
Maturities, bonds	-17	-28	-59	-36	-70
Change in fx bond stock	-11	-28	71	-4	-39

During 2011, the krona/swap borrowing was equivalent to SEK 13 billion, not including on-lending to the Riksbank. When we raise a krona/swap loan, we must take into consideration that we then reduce the scope for using swaps instead of T-bills in the krona borrowing. In other words, an alternative cost arises if borrowing through interest rate swaps is cheaper than borrowing in T-bills. The borrowing costs of bond borrowing and krona/swap borrowing in Table 11 are therefore not directly comparable.

Krona/swap funding

In a krona/swap transaction, we first borrow in the Swedish bond market. We then make a cross currency swap where we receive a fixed SEK amount and pay a variable interest rate in foreign currency. The exposure in the issued bond rate is consequently eliminated. Within the framework of the swap, we exchange the SEK we have received into foreign currency with our counterpart.

When the swap matures, we exchange the amount borrowed with our swap counterpart. By agreement, this is to be done at the same rate as in the initial currency exchange. We can then pay the maturing bond with the SEK amount. To be able to exchange the amount back to SEK, we must first purchase the foreign currency. This creates a currency exposure since we do not know the future exchange rate when we make the swap. Borrowing through currency swaps accordingly provides the same currency exposure as if we had issued a bond directly in foreign currency.

Result of foreign currency borrowing

The low offering of bonds in combination with a good credit rating has led to our loans strengthening their high value in the secondary market. A stable value in the secondary market is important for the investors to regard them as attractive for issues. In practice, however, there is little trading in our loans as most investors prefer to hold bonds to maturity.

Both in US dollars and Euros, borrowing was cheaper than ever. Compared to states and large international borrowers we borrowed at the lowest cost for syndicated loans at the time of borrowing. The low cost compared to 2010 is due partly to lower interest rates on a global scale, and partly due to investors' increasing demand for secure paper, as well as our limited borrowing requirements. The large demand for Swedish government bonds should be regarded as a good rating of our competitiveness in the capital market.

TABLE 11. COSTS FOR FOREING CURRENCY BONDS AND KRONA/SWAP FUNDING

Basis points vs USD Libor	2007	2008	2009	2010	2011
Bonds[1]	-33	-	3	0	-9
Basis points vs Euribor	**2007**	**2008**	**2009**	**2010**	**2011**
Bonds[2]	-	-	20	-	-55
Krona/currency swaps[3]	-54	-73	-46	-73	-97

[1)] Three-month floating bank rate
[2)] Six-month floating bank rate
[3)] Three-month floating bank rate

US dollar loans were issued at a cost corresponding to 9 basis points in relation to the three-month USD Libor and the Euro loans at 55 basis points in relation to the six-month Euribor. After commissions, this corresponds to around 6 basis points in US dollars and 51 basis points in Euros.

Via basis swaps we can translate US dollar loans in terms of Euribor for purposes of comparing with the cost of the loans in Euros. Considering the basis swaps, the cost of the US dollar loans is lower than of the Euro loans. Since 2002, US dollar loans have been the primary and most favourable source of the Debt Office's direct borrowing in foreign currency. The favourable terms in the US dollar market entailed that we raised the main part in US dollar loans.

During 2011, the entire borrowing requirement in foreign currency for the central government was covered by borrowing in SEK swapped to foreign currency. The cost including swapped borrowing to the Riksbank amounted to 97 basis points below Euribor.

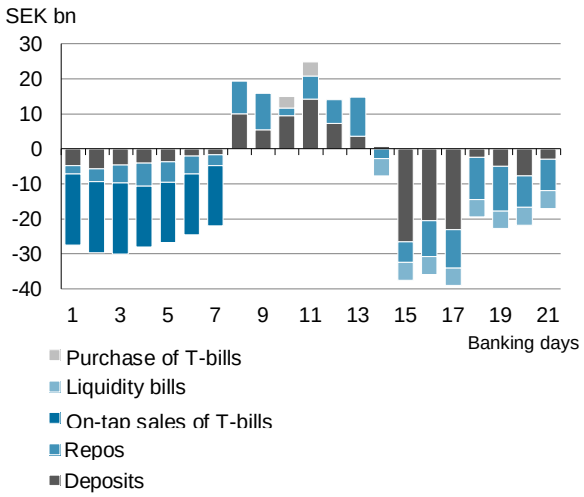
Favourable terms primarily in the first half of 2011 enabled an attractive fixing of the swap spread. Swap borrowing was thus cheaper, although presence in the bond market entails a lower borrowing cost in the longer term. As precaution against a potential increase of borrowing it is therefore valuable to uphold a certain interest among investors who are interested in buying our bonds also in foreign currency.

4.4 Liquidity management

The Debt Office does not only manage central government long-term and medium-term borrowing, but also the state's short-term funding and investment requirements. Liquidity management is taken care of by usage of money market instruments, commonly used in cash management by large institutions. There is no sharp distinction between longer borrowing and liquidity management. Borrowing in T-bills is used partly for long-term funding and partly to handle fluctuations in cash flows between the months of the year. Variations in T-bill borrowing thus become part of liquidity management. Changes in the forecast for the cash flow are countered primarily by adjustments in the issue plan for T-bills.

The additional instruments that are used are bank loans and deposits, repos, on-tap, sales and buybacks of liquidity bills (T-bills with tailor made maturities), tri-party repos (repos against a basket of securities with a third party that handles the securities), and commercial paper. We deal in both SEK and foreign currency.

FIGURE 13. LIQUIDITY MANAGEMENT DURING A TYPICAL MONTH (POSITIVE FIGURES CORRESPOND TO SURPLUSES)

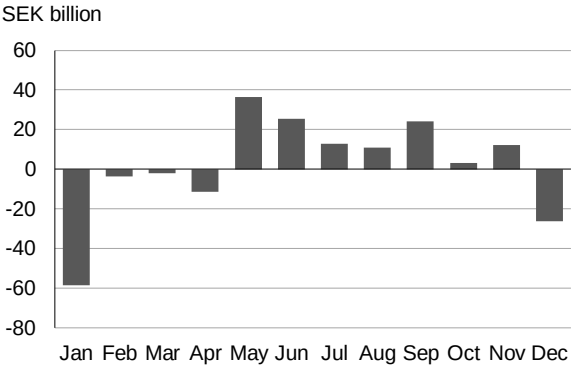


The liquidity during a typical month follows a pattern with surplus liquidity a couple of days in the middle of the month in connection with tax payments. This normally turns into a deficit the same day as the liquidity for the month's T-bill maturity is paid. Even though many deviations from this pattern are rather the rule than the exception, it may be worth bearing in mind the basic pattern. There is also a seasonal pattern where large tax payments in February mean the surpluses are large in spring and summer and successively decrease during autumn so that December and January are the months with the largest deficits.

As of 2008 liquidity management has become more complex, mainly due to a more extensive management of foreign currency. The process initiated resulted in a larger network of counterparties and the introduction of new instruments in liquidity management. The improvement and streamlining of liquidity management continued in 2011. We have mainly improved the handling of large deficits. We have introduced a new system for counterparty limits, simplifying day-to-day management. The economic crisis has forced us to seek new counterparties as many old ones have disappeared because their ratings have deteriorated.

The figure below shows the daily balance of debts and investments in liquidity management. This balance can be regarded as a measure of the daily cash management.

FIGURE 14. NET HOLDING ON AVERAGE PER DAY IN 2011[1]



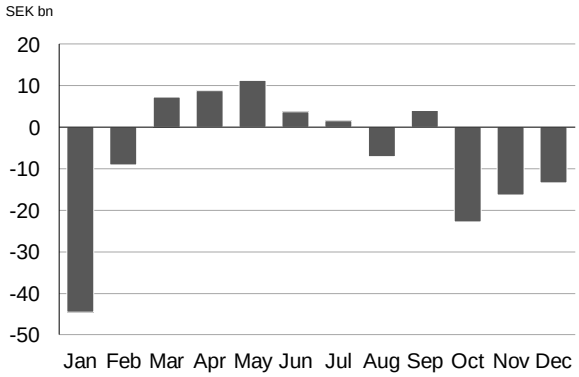
1) Positive figures represent surplus

A part of liquidity management relates to slightly longer maturities than overnight loans and investments. A narrower measure of our cash position is shown in figure 15. This is the daily position on the deposit market, i.e. bank loans and bank deposits.

For some periods it has been a matter of managing liquidity surpluses. We have also managed periods with large surpluses in foreign currency. An explanation as to why we managed assets in foreign currency in 2011 was that claim against the Riksbank matured and we did not have any corresponding loan maturity.

In liquidity management it is the underlying loan and investment requirement in SEK which steers the activities. In cases where we need to borrow SEK, all assets in foreign currency are converted into SEK using a currency swap, i.e. we sell currency and receive SEK over a certain term and on maturity we convert SEK back into currency at a predetermined rate of exchange.

FIGURE 15. NET INVESTENT IN THE DEPOSIT MARKET ON AVERAGE PER DAY IN 2011[1]



1) Positive figures represent surplus

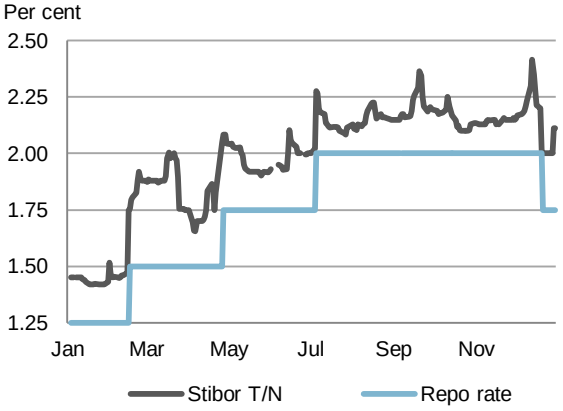
Turbulence in the overnight loans market

In October 2010, the last of the Riksbank's long fixed-interest loans matured. The purpose of the loans had been to create over-liquidity in the Swedish overnight loan market during the crisis in 2008 and 2009. Shortly afterwards the market was turbulent and it took a while before normal patterns returned. In spring 2011 the market functioned relatively well, but there were still periods of turbulence. However, it was possible for the Debt Office to borrow and invest at the Riksbank's repo rate without any major problems.

The effects of the 2008 crisis are still noticeable in the market. Several large market participants have a rule to, if possible, maintain a money surplus on maturities longer than or equal to one day. This means that many are willing to pay extra to borrow money from tomorrow until the next day, often significantly more than they can borrow in the overnight market. The difference is shown in figure 16, which shows the Riksbank's repo rate and Stibor-fixing for tomorrow until the next day.

Turbulence in the market increased in the summer in connection with the downgrading of the US. During the autumn the turbulence continued to increase as the crisis in the Eurozone worsened. The effect on the overnight market was that more market participants were willing to pay extra in order to have a surplus in liquidity. When the Debt Office also had large surpluses, caused by inflows of e.g. taxes, the turbulence increased in the market. For this reason we worked pro-actively to maintain a (small) borrowing requirement in the overnight market. We primarily used repo swaps in mortgage papers, where we could invest money at a better yield than the repo rate. In this way we contributed to the market functioning better without compromising our task to borrow as cheaply as possible with regard to the risk.

FIGURE 16. STIBOR-FIXING TOMORROW/NEXT AND THE RIKSBANK'S REPO RATE IN 2011



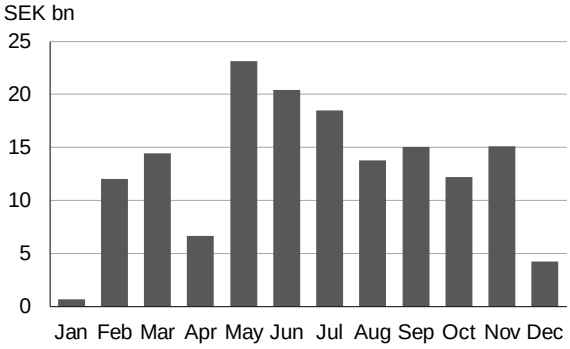
Foreign currency flows

Maturing loans, interest payments, EU flows and accounts with securities generate continuous flows in foreign currency which are converted into SEK. To comply with the government's requirement for an evenly distributed exchange rate pace, we use both the spot and forward market. In the event of large maturing loans in foreign currency, we buy currency forwards in advance of the final payment. The net of the flows is distributed in this way evenly over the months of the year.

The Debt Office endeavours in the daily management of currency exchanges to use occasions with good liquidity to reduce the costs. The terms of the maturities are determined partly by the underlying SEK requirements, and partly by pricing in the forward market. The turbulence in Europe in the latter part of 2011 caused strong variations in the forward market pricing.

The Debt Office kept within the cost-neutral path defined by the Board during the past year.

FIGURE 17. NET HOLDING IN LIQUIDITY MANAGEMENT IN FOREING CURRENCY DAILY AVERAGE IN 2011[1]



[1)] *Positive figures represent surplus*

5 Active management

To reduce the costs of the state, the Debt Office takes active positions in foreign currency. By taking positions in derivatives we can adjust the maturity of the debt and the currency distribution based on assessments of future interest rate and currency exchange rate movements. We are able to take currency positions and interest positions, but in the latter case only in foreign currency.

In our own continuous management, relatively small positions are usually taken. When we assess that the potential yield is large in relation to the risk, we make larger debt adjustments. Decisions concerning such large and more long-term, so-called strategic positions are submitted to the Board.

According to the 2011 guidelines, the total risk-taking could not exceed SEK 450 million, measured as daily Value-at-Risk (VaR). The Debt Office's Board has allocated SEK 220 million in daily VaR for active management in foreign currency. The remaining part is available for strategic positions.

The Debt Office uses external managers to diversify management and to obtain an idea of the efficiency of our own management.

5.1 Limited profit in 2011

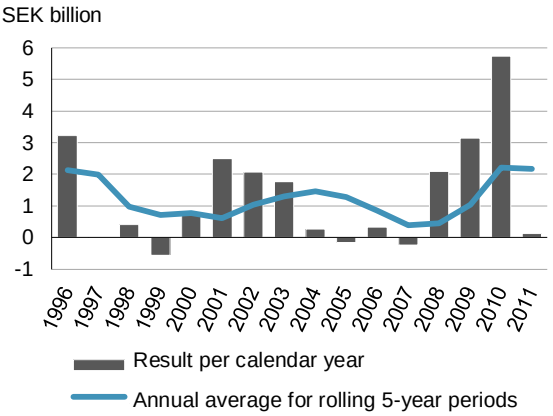
Active management is an activity where the results inevitably vary between each year. It is therefore evaluated over five-year periods. In 2007–2011 a positive management result of SEK 2.2 billion on average per year was produced. The largest contribution originates from the strategic position for a stronger Swedish krona which was built up during 2009. The result of external management was a surplus of SEK 101 million per year. The internal continuous management produced a deficit of SEK 42 million per year.

In 2011 the result was a profit of SEK 133 million, see table 12.

TABLE 12. RESULT OF ACTIVE MANAGEMENT

SEK million	2007	2008	2009	2010	2011	Average
Internal	-203	1 892	3 048	5 464	134	2 067
Strategic	*0*	*1 587*	*2 623*	*6 051*	*285*	*2 109*
Continuous	*-203*	*305*	*426*	*-587*	*-151*	*-42*
External	-35	187	90	263	-1	101
Total	**-238**	**2 079**	**3 138**	**5 727**	**133**	**2 168**

FIGURE 18. ANNUAL RESULT OF ACTIVE MANAGEMENT



Strategic positions

In the first half of 2011 we continued to gradually wind-up our strategic position for a stronger Swedish krona in relation to the Euro. This position was built up during 2009 based on our assessment that the Swedish krona, at an exchange rate of SEK 11 against the Euro, was significantly undervalued. We therefore increased the debt in Euros and reduced the debt in SEK. In June 2011 the position had been wound-up and the total realised gain was SEK 8.1 billion. The main part of the profit arose in 2010 when the Swedish krona was strengthened markedly. Of this total result, SEK 285 million originates from 2011.

Continuous active management

The year was marked by significant uncertainty in the financial markets. The unfavourable environment was reflected in the poor result for both internal and external active management. The external management produced a zero result while internal continuous active management produced a loss of SEK 151 million; see table 12.

The loss is attributable to the first half of the year. Statistics indicated, in our assessment, that the recovery of the global economy would continue, an expectation which was dashed in late summer. In the second half of the year, the result improved successively as we positioned ourselves for a more negative development.

Flatter curves and a stronger US dollar exchange rate in relation to the Euro has produced profits, while positions for higher interest rates, a weaker yen and a weaker Swiss franc have contributed adversely to the result.

Interest rate positions in internal continuous management

In the first half of the year interest rates were on an upward trend as the recovery of the word economy seemed stable. This quickly changed, however, over the summer to sharply falling interest rates when the recovery stopped, while concerns for the development in southern Europe escalated. The US was downgraded for the first time ever in connection with the political deadlock, which arose concerning raising the budget ceiling. The European crisis, which for a long time appeared to be limited to a small number of peripheral countries, spread during the autumn and threatened the entire currency union. The European financial markets showed clear signs of stress. The German ten-year bond was listed at around 2.3% and the American around 2%.

The Debt Office had taken a position for flatter interest rate curves in 2011 both in Europe and the US. This was a successful strategy since the curves flattened over the year as long interest rates fell to record-low levels.

From time to time we tried to take a position for higher interest rates, which has been a less successful strategy. During the last quarter of the year, we also took a position for lower German interest rates in relation to American rates. This position has not yielded any result as yet.

Foreign currency positions in internal management

The currency market has also been driven by the drastic change in risk perception. The Euro and the Australian dollar are examples of currencies that strengthened during the first half of the year and became significantly weaker in the second half of the year. The US dollar and especially the Japanese yen, on the other hand, became stronger in the last months of the year. The Swiss franc was one of the most volatile currencies in the year. In connection with the escalation of the European debt crisis, the Swiss franc became significantly stronger. The Swiss Central Bank was forced to introduce a floor against the Euro while promising to defend this with unlimited funds. Overall, however, the currency movements were relatively small even though they were under high volatility.

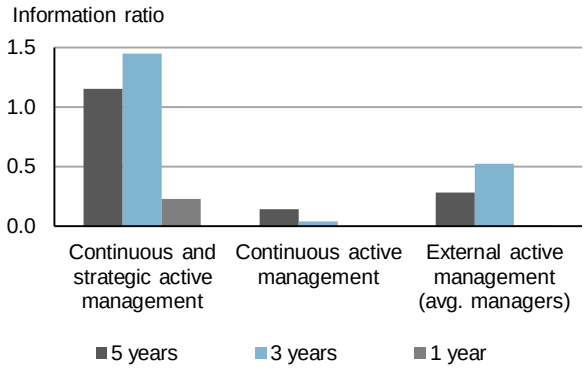
The Debt Office took a position for a stronger US dollar for most of the year. In the aftermath of the tsunami and the nuclear disaster in Japan the position was primarily against the Japanese yen, and in the second half of the year it was focused around a short position in Euro.

Result for external managers

To obtain a measure of goal fulfilment in the Debt Office's own active management, to spread the risks and to increase competence within the agency, the Debt Office has used external managers since 1992. The external managers also serve as an important source of information for the internal management. During 2011 four different external managers were used: PIMCO, IPM, Mellon and Amundi.

The managers' risk mandate is calculated on nominal reference portfolios which correspond to SEK 6 billion or SEK 8 billion per manager. The combined result for the external managers was SEK - 1 million in 2011.

FIGURE 19. RISK-ADJUSTED RESULTS



Risk-adjusted results

The so-called information ratio[1] is a generally used measure for reporting a risk-adjusted result. A high value means that the manager has taken a relatively small risk in relation to the result achieved. Figure 19 shows the risk-adjusted result for our strategic positions, our continuous active management, and the external management. The information ratio for the external management is measured as the average of the active managers' results to get a more relevant benchmark.[2] For the information ratio of the total management we show the combined active management, and thus take into consideration all positive diversification effects.

Transfer of information

In addition to functioning as a diversification of active management, the purpose of the external managers is also that they should contribute to the transfer of knowledge and information. This primarily takes place through our daily insight into the managers' individual and combined positions. The managers' positions reflected the unpredictable developments, since it has not been possible to follow any clear trend throughout the year and since there has not been any consensus view of the development.

We also met all managers during the year. We put extra focus on following the development and, to the extent possible, on understanding Amundi's process, which has produced poor results for an extended period.

[1] The information ratio is computed on monthly data. The reported annualised information ratio is obtained by dividing the average annual result expressed in basis points by the standard deviation of the monthly results recalculated on an annual basis.

$$\frac{\sum \text{result in bp / number of years}}{\sigma \times \sqrt{12}}$$

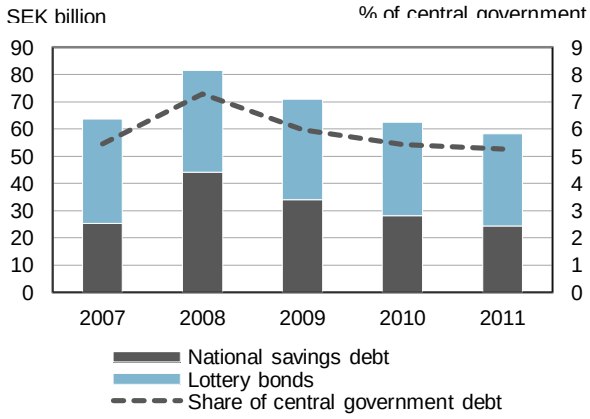
[2] We have first computed the information ratio for each manager who was active during the period and then weighted this according to their active period. Thus, we do not take into consideration any positive correlation effects, but the result is a better indication of the external managers as a benchmark group.

6 Retail market borrowing

The Debt Office also borrows from private persons and small investors to finance the central government debt. We offer our clients lottery bonds and National Debt Savings. At year end, SEK 58.3 billion, or 5.3% of the central government debt, was funded in the retail market; see figure 20. The objective for the retail market borrowing is that it should be cheaper than the borrowing we do in the government bond and T-bill market.

In 2011 retail market borrowing reduced the costs for the central government debt by SEK 141 million; see table 13. The aggregate cost saving for the five-year period 2007–2011 was SEK 846 million compared to the government securities market.

FIGURE 20. RETAIL MARKET BORROWING, TOTAL AND AS A SHARE OF THE CENTRAL GOVERNMENT DEBT 2007–2011



Reduced market share

At the end of 2011 National Debt Savings and lottery bonds represented 4.2% of the Swedish market for savings in interest bearing instruments; a decrease by 0.5 percentage points compared to the year before. The decrease is due to a reduction in lending while the total market for savings in interest bearing instruments has grown. The market for savings in interest bearing instruments includes bank lending, fixed income funds, and retail bonds.

New lottery bonds despite uncertainty

The result for lottery bonds was SEK 130 million in 2011, which is SEK 41 million lower than in 2010. The deterioration is due to lower revenues on outstanding lottery bonds. Adding to this, a reduction in the number of older bonds in paper format which clients have not redeemed. Bonds expire ten years after maturity and the money goes to the state.

In April and November we issued new lottery bonds at the same time as two bonds matured. Due to the low interest rate level, it was uncertain whether we would be able to sell any lottery bonds in the autumn. When the terms had been decided, the interest rate for equivalent maturities in the government securities market was 1.36%, which was sufficient for a draw percentage of 0.6% and a guaranteed interest rate of 0.3%. Despite low interest rates and less marketing than normally, we sold lottery bonds for SEK 2.9 billion in November, which represents 76% of the volume in the lottery bonds which matured at the same time.

The total volume of lottery bonds decreased during the year by SEK 0.6 billion to SEK 33.9 billion.

Somewhat smaller surplus for National Debt Savings

The result of National Debt Savings deteriorated during the year by SEK 1 million to SEK 11 million. Income decreased due to a reduction in the outstanding volume. The reduction was, however, dampened by income being lower than normal also in the year before. Due to the long repo rate, we were unable to realise our normal margin on variable savings, which we did throughout 2011. Lower marketing costs also contributed to dampening the decline in 2011.

During the year the repo rate increased, as did the interest rate on variable savings, while interest rates on fixed income achieved record-low levels. The outflow mainly from variable accounts, representing 80% of the deposited funds, was significant during the first eight months. However, in September the net outflows changed to net inflows which continued until the end of the year. The increased interest was due largely to the increasing turbulence in the financial markets.

In total, the volume of National Debt Savings decreased by SEK 3.7 billion to SEK 24.4 billion. The number of clients decreased by 10% to 118,000.

TABLE 13. SAVINGS, RETAIL MARKET BORROWING

SEK million	2008	2009	2010	2010	2011
Lottery bonds	106	170	171	171	130
National Debt Savings	38	36	12	12	11
Total saving	144	206	183	183	141

7 Market and debt commitments

7.1 Our strategy

The goal of central government debt management is to minimise the long-term costs while taking the risks into account. To achieve this, we want to contribute to creating an attractive market for government bonds, T-bills and inflation-linked bonds with a broad and stable investor base.

Market commitment and debt maintenance is about establishing principles for operational activity. These principles concern, for instance, the Debt Office's operational strategy, which is to concentrate the debt on a limited number of maturities and maintain efficient sales channels.

In accordance with the principle of open, predictable and long-term communication, we normally publish the report Central Government Borrowing – Forecast and Analysis three times a year. In this publication, we describe the interaction between our forecasts of the borrowing requirements, the guidelines set by the government, and the allocation of borrowing to different instruments. The purpose is to make it easier for market participants to follow and form an opinion of the central government debt policy.

Investor relations shall be marked by openness, transparency and predictability. The Debt Office applies a long-term plan and works continuously with Swedish and international counterparties. Visits to foreign investors in Central and Eastern Europe, North America and Asia were made in 2011. A more detailed description of the above principles can be found in our Finance and Risk Policy.

7.2 Market commitment

The Debt Office has a number of market support measures in relation to our dealers to support liquidity in government securities. The intention is to reduce uncertainty in shortfall situations, to eliminate transaction problems and to compensate for the relative small size of the Swedish market. These commitments apply on request regardless of the state of our own cash-based funding requirements. These market commitments entail:

- Access to an unlimited repo facility for nominal and inflation-linked government bonds. A limited repo facility for T-bills.
- Exchanges between inflation-linked bonds at fixed prices.
- Liquidity-neutral weekly repo swaps in all instruments at fixed prices for a limited volume.
- Exchange offer to increase the volume in benchmark bonds by two, five and ten years to maturity.

Exchanges of inflation-linked bonds amounted to SEK 8.8 billion in 2011 compared to SEK 2.3 billion in 2010. Inflation-linked bond 3106 will mature in April 2012. When an inflation-linked bond approaches maturity, small changes in CPI have a great impact on the yield. This meant that many market participants chose, at the end of 2011, to exchange 3106 for a longer bond. This may be an explanation to the increased volume.

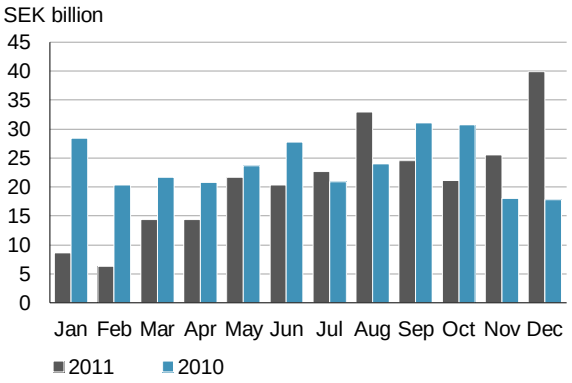
The standing repo facility is by the far most used market commitment. A standing repo facility means that a dealer can purchase a government security from us with an agreement to resell it the following day. During 2011, the standing repo facility in government bonds accounted for an average of SEK 21 billion per bank day. In 2010 this figure was SEK 24 billion.

The standing repo facility is offered for a fixed interest rate in relation to the Riksbank's repo rate. Since we want the repo market to be dealt with to the greatest possible extent by the market participants themselves, this rate is lower than the Riksbank's repo rate. The standing repo facility operates at a level 40 basis points below the repo rate.

During periods of large portfolio movements, shortfall situations easily occur which makes it difficult for the participants to find the desired instrument on the market. These shortfall situations are made worse if investors do not offer their holdings on the repo market. During 2011 the demand for Swedish government securities increased among foreign investors. Many of these investors are central banks or other large market participants who buy directly in our auctions but who are rarely active in the repo market. This means that our auctions do not necessarily increase the offer in the repo market by the same volume we issue. The need to turn to the Debt Office to find certain government securities may therefore increase. The Debt Office's standing repo facility thus maintains a functioning repo market and offers a last resort for investors who require instruments. This limits the risk for investors in handling government securities, which is significant for a liquid market.

Demand for government securities varies a lot during the year, in particular due to the state of the financial markets, but also because of seasonal variations. The demand for government securities and other types of investments normally increases at the year-end.

FIGURE 21. THE STANDING REPO FACILITY IN GOVERNMENT BONDS, AVERAGE VOLUME



With the exception of a few occasions, the daily repo volume was in line with a long-term average which indicates that the Swedish bond market is liquid despite the state financial turbulence in Europe. We did not see the increase in repo volumes which the financial turbulence caused in 2008. Currently, our assessment is that it is not necessary to implement any larger changes in our market commitment.

Our overall assessment is that the repo commitment has continued positive effects on the stability of the market. On our part, it is important that the market works well also in turbulent times. This reduces our borrowing cost and contributes to us being able to maintain a good, long-term relationship with our investor base.

Finally, it should be emphasised that the repo market in Sweden is a very important reason why the fixed income market here functions so well in an international perspective. The well-functioning repo market is a result of many factors: not least our primary dealers have for many years contributed to the infrastructure. The Debt Office's market commitment is also an important explanation.

Reduced borrowing requirements have created concern in the market that the offer of nominal bonds will decrease to a level so that liquidity is affected. Good liquidity is a condition for the Debt Office being able to borrow in a cost-effective manner on the market. Via exchanges we can increase the outstanding volume for two, five and ten-year benchmark bonds without effecting the borrowing requirements. During 2011 we offered the market to, in a couple of auctions, make exchanges to the ten-year benchmark bond. The exchanges were received favourably by the market and the Debt Office will continue to offer these exchanges in 2012.

7.3 Confidence in the Debt Office

On behalf of the Debt Office, TNS Sifo Prospera inquired, for the eighth consecutive year, among Swedish and foreign investors as well as primary dealers how they rate the Debt Office's borrowing. In the evaluation, which was conducted during the period 24 November to 14 December 2011, seven primary dealers, and 51 Swedish and foreign investors were interviewed. The response rate was 96%, which was somewhat higher than in 2010.

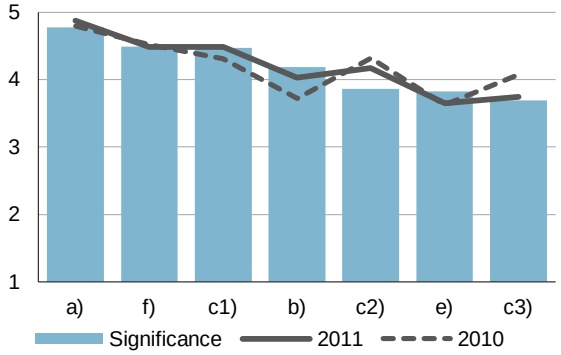
Confidence increased in general for 2011 from an already high level in 2010. This increase is mainly among Swedish investors, but also among primary dealers. Among foreign investors the evaluation remains unchanged.

The Debt Office's main strengths are information about the central government's borrowing requirement, issue volumes and the terms of nominal government bonds. Swedish investors give the Debt Office a good rating for the contacts, responsiveness and information relating to T-bills. The Debt Office received a very high rating for market commitment via government securities repos.

Weaknesses relate to contact with mainly Swedish but also international investors and information concerning inflation-linked bonds. A summary of the survey is shown below.

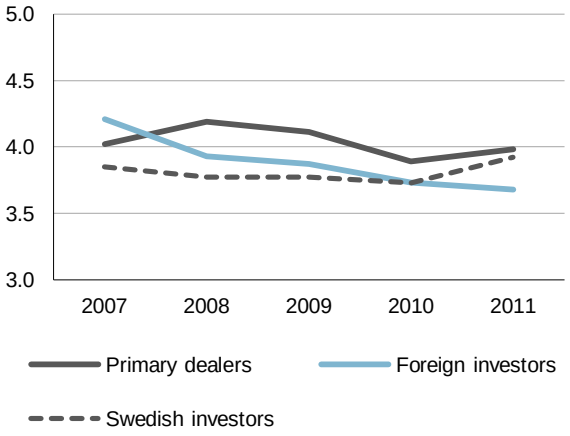
- Clear information about borrowing requirements and funding continues to be the most important factor. The Debt Office was rated highly for forecasts of the central government 's borrowing requirements and funding. This was followed by clear and consistent acting and information concerning nominal bonds.
- The Debt Office is highly rated for its transparency compared to foreign debt offices. This is the view among a majority of primary dealers and foreign investors.
- The Debt Office's market commitment in repos with government securities is highly rated by primary dealers, which represents an improvement compared with the previous year.
- Swedish investors do not feel that the Debt Office is sufficiently responsive and wish for closer contact. Foreign investors value the contact highly and want more information about inflation-linked bonds.
- Investors continue to be satisfied with the liquidity in nominal bonds. Liquidity in the second-hand market for T-bills and inflation-linked bonds has deteriorated compared to one year ago.
- More Swedish investors are active in the primary market compared to one year ago.
- The Debt Office's website is overall the most important source of information on the central government borrowing requirements, funding, auction terms and results. However, the performance and navigation could be improved.

FIGURE 22. EVALUATION OF THE DEBT OFFICE BY SWEDISH INVESTORS 2011



Explanation: The rating scale is from 1 to 5. Scores above 4 are interpreted as excellent or very important, and scores below 3 as below average or unimportant.

FIGURE 23. WEIGHTED PROFILE SCORE FOR THE DEBT OFFICE



Explanation: The weighted profile score is the total of all ratings in the survey weighted by the importance that the respondents have given to the respective questions. The rating scale is from 1 to 5. Scores over 4 are interpreted as excellent and scores under 3 as below average.

Areas covered by the survey

Communication

- a Clear information about borrowing requirements/funding
- b Good contacts with investors and primary dealers

Funding

Good information about volumes and terms

- d1 Nominal bonds
- d2 Inflation-linked bonds
- d3 T-bills

General

- e Responsiveness to market requests
- f Clear and consistent acting

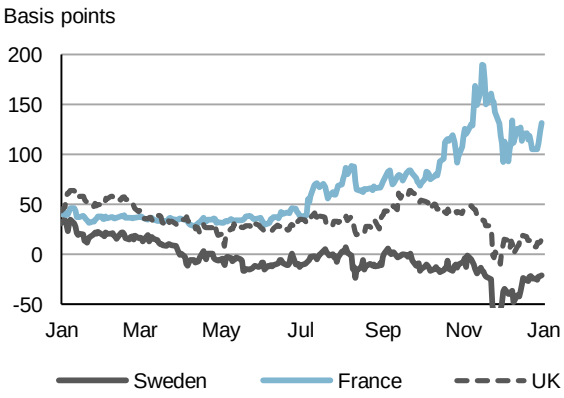
8 Goal fulfilment and results

The overarching goal of the central government debt management is to minimise long-term costs of the debt without taking too high risks. We have devised strategies for the management which we believe create conditions for achieving that goal in the best way. This does not only include strategies in terms of guidelines for the composition and maturity of the central government debt. It also involves principles relating to how we should work operatively to secure attractive terms of borrowing in the long-term. For instance, we work actively with market commitment and strive to be transparent, clear and predictable in our actions.

It is not possible to evaluate exactly whether the strategies lead to our achieving the overarching goal. There are no evident measures to evaluate the guideline decisions. The Debt Office's proposed guidelines are based on our assessment of how the debt should be handled to achieve the goal. Since the system with annual guidelines was introduced in 1998, the government has substantially complied with our proposals. The Swedish parliament has concluded that the government's guidelines have been compatible with the goal. Since it is the Swedish parliament that has adopted and interpreted the goal, this indicates that the Debt Office's work with the proposed guidelines has provided an important contribution to achieving the overarching goal for central government debt management.

It is also not possible to quantify the effect of our policy for market commitment, etc. On the other hand, we can, based on our annual survey, conclude that there is a high level of confidence in the Debt Office among Swedish as well as foreign investors, and we perform well compared to other government borrowers. The survey therefore shows a high degree of achieving the goals of our strategy.

FIGURE 24. INTEREST RATE DIFFERENCE COMPARED TO THE GERMAN TEN-YEAR CENTRAL GOVERNMENT INTEREST RATE IN 2011



We also see that interest rates on Swedish government securities are low in relation to other central government interest rates. The relatively low interest rates are of course due primarily to expectations concerning key policy interest rates and central government finances, but without a well-functioning government securities market and significant confidence in our borrowing-activity, the demand for our loans would not have been as strong. Last year the Swedish ten-year interest rate was listed at its lowest more than 50 basis points below the German, see figure 11.

8.1 Debt management strategies

Overall, the Debt Office considers that it achieved the goals by following the principles set forth by the Debt Office and the government in relation to central government debt management. We would like to mention a few examples:

Operative management with consideration for the goals

We managed the central government debt in accordance with applicable guidelines for shares and maturities. In the framework of the guidelines we also planned borrowing with consideration for the goal regarding low cost in the long run. An example of this is that we focused on issues in nominal government bonds rather than other borrowing when the borrowing requirement was low. The government bond market is our primary lending market, and to secure good future loan contingency it is important to maintain infrastructure and liquidity in this market. The maturity target for the nominal krona debt was achieved by combining the bond borrowing with interest rate swaps.

To minimise financing and refinancing risks in the management we handle upcoming loan maturities over a long period. We therefore distributed borrowing evenly over the year in our regular auctions and in liquidity management.

Transparent and clear communication

The debt problems in Europe have put the focus on the need for transparency in reports on central government debt and borrowing to create confidence among investors. We strive to be as transparent and clear as possible in our communication with the market. In the 2011 survey, the Debt Office was rated excellent for clarity, communication and consistency. The Debt Office was also rated higher than other central government debt offices in relation to transparency.

Market commitment

We worked actively with market commitment measures during 2011. For instance, we offered complementary exchanges in government bonds to reduce the risk of liquidity deterioration due to the small issue volume. Periodically we also offered relatively large volumes in market commitment repos, for instance when the demand for government bonds increased markedly before the year-end. In the Prospera survey, primary dealers rated the Debt Office higher than the previous year in relation to market commitment in repos with government securities.

Active management

By taking derivative positions in foreign currency we can adjust the exposure of the debt in order to reduce the cost of the debt. In the last five-year period we have saved an average of SEK 2.2 billion per year, largely thanks to the position for a stronger Swedish krona which was established in 2009.

RIKSGÄLDEN
SWEDISH NATIONAL DEBT OFFICE

Street address: Jakobsbergsgatan 13 • Postal address: SE-103 74 Stockholm • Phone: 08 613 45 00
Fax: 08 21 21 63 • E-mail: riksgalden@riksgalden.se • Internet: www.riksgalden.se