

# Basis for evaluation of central government debt management 2010









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# 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 monetary policy. The Debt Office shall also contribute to improving the functioning 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 will be the state's borrowing costs. Market commitment 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 after 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 kronor. 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 state mainly require investments. with long maturities. It is therefore not reasonable to borrow too much with short

maturities. By diversifying the maturity profile, the risk of a rapid increase in interest costs due to rising market rates is reduced. The benchmark set by the Government for the average interest rate refixing period is therefore based on an assessment of the desired balance between cost and risk.

Within the framework of the Government's guidelines, the Debt Office makes different 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 there 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's Board is also able to make decisions on interest rate and currency positions in foreign currency.

### **Guidelines for 2010**

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

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

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

Foreign-currency debt: 0.125 yearsInflation-linked krona debt: 9.4 years

· Nominal krona debt:

Maturities up to 12 years: 3.2 years

Maturities exceeding 12 years: max volume SEK 60bn

The Debt Office may take active positions in derivative instruments. The limit for position-taking shall be SEK 600 million measured as daily Value-at-Risk at 95 per cent probability. The risk limitation applies to all positions except those relating to the krona's exchange rate. The Debt Office may take positions in kronor in relation to other currencies of at most SEK 50 billion. The risk mandate applies both to the strategic and the operational level.

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 saving in relation to borrowing through government bonds or T-bills.

### Task in 2010

In the guidelines, the Government gives the Debt Office the task of:

- Investigating what the mandate for position-taking should be like. This task includes a particular clarification of how steering of position-taking should be designed.
- Continuing work on improvements of the comparison between borrowing in the retail market and the market for government securities.
- On the basis of a considerably higher or lower central government debt, analysing how large the shares of the different types of debt should be as well as analysing the handling of maturities in these cases.

# Costs and risk of central government debt management

### 2.1 Interest payments on the central government debt

### Interest payments on central government debt in 2010

Interest payments on the central government debt amounted to SEK 23.3 billion in 2010. This is SEK 0.3 billion more than the appropriation, which was SEK 23.0 billion<sup>1</sup>. Despite the small difference between the actual outcome and the appropriation, the current interest payments were considerably lower than estimated, which was offset by higher exchange rate differences and capital losses on buybacks.

The capital losses derive from exchanges in connection with our introduction of a new inflation-linked bond. We bought back loans in exchange auctions with high accrued inflation compensation. This meant that we made a net amortisation of the inflation-linked debt, which is reported as a capital loss in interest payments on the central government debt.

Interest payments in Swedish kronor were SEK 5.2 billion lower than estimated, which is primarily due to the central government debt being smaller than we expected. Interest payments in foreign currency were SEK 2.9 billion lower than estimated, which is attributable to lower market rates and a smaller central government debt.

Issue premiums/discounts were SEK 3.2 billion lower than estimated. Issue premiums/discounts depend on the relationship between the coupon rate for each bond and the market rate of the bond on issue date. If the market rate is less than the coupon rate, it will be reported as a premium. However, this is evened out over the whole maturity of the loan as the interest payment is higher than the market rate. If the market rate is higher than the coupon rate, there will be a discount instead. When the Debt Office buys back bonds, it works in the same way except that it is then called capital gains/losses. The difference between the actual outcome and the appropriation estimate is partly due to the Debt Office changing the issue plan and partly due to the actual market rates differing from what was assumed at the time of the estimate.

the central government debt, and interest and exchange rates

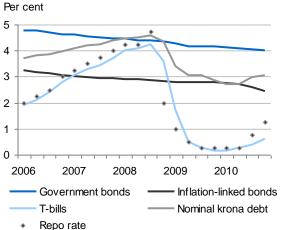
The size of the exchange gains/losses depends on when the loans mature and the exchange rates then compared with when the loans were raised. The Debt Office also has an extensive derivative portfolio, which is used, inter alia, to achieve the desired foreign currency exposure for each currency. Currency forward contracts and krona/currency swaps are mainly used then. These affect exchange gains and losses according to the same principles as ordinary loans, although with a faster impact as the derivatives usually have a shorter maturity than loans. Differences between the actual outcome and the appropriation estimate are due to the actual exchange rates compared with those assumed in the estimate.

Compared with 2009, interest payments decreased by SEK 8.1 billion. This is mainly due to interest rates on foreign currency loans being SEK 5.6 billion lower and interest rates on krona loans being SEK 2.2 billion lower. The lower interest payments in foreign currency are due to lower market rates and to a large loan in euro with five per cent coupons maturing in 2009. In Swedish kronor, the difference is due to lower interest payments for inflation-linked bonds and T-bills.

### 2.2 Running yield

The cost of the central government debt is a measure of accrued interest payments. The cost is measured here in terms of running yield for our most important debt instruments.

Figure 1. RUNNING YIELD



<sup>&</sup>lt;sup>1</sup> This estimate is based on the Government's assumptions on the development of

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 the maturity. The 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. The measure is not as self-evident for certain instruments. We restrict ourselves here to bonds, T-bills and swaps in Swedish kronor.

### Nominal and inflation-linked bonds in Swedish kronor

The nominal debt in Swedish kronor consists mainly of government bonds, T-bills and interest rate swaps, which are reported as nominal debt instruments in figure 1. The total running yield of the nominal debt instruments is obtained by individual running yields weighted by nominal amounts. Interest rate swaps contribute to shortening the maturity with the expectation of reducing the cost of the central government debt at the expense of increased interest rate refixing risk. During the final quarter of 2008, the epicentre of the financial crisis, we saw examples of the increased risk. The running yield exceeded the cost of nominal bonds for the first time during the period, due to high STIBOR rates.

The running yield for outstanding nominal bonds has gradually decreased since 2006. At the end of 2010, the rate was around 4 per cent, marginally lower than the previous year. During the year, we have sold bonds for the equivalent of SEK 58 billion at an average yield of 2.63 per cent. This is just over 50 basis points lower than in 2009, when we issued government bonds for SEK 110 billion including the 30-year loan.

The running yield for the inflation-linked bond stock is based on the real running yield and not the nominal. The difference between nominal and real running rate is the so-called break even-inflation, which is around 1.5 percentage points. This difference reflects the market's inflation expectations but is also affected by inflation-linked bonds being less liquid than nominal government bonds.

At the end of 2010, the average inflation-linked rate was 2.4 per cent, 30 basis points lower than the previous year. We sold and carried out exchanges of inflation-linked bonds during 2010 at an average yield corresponding to 0.42 per cent. This is one percentage point lower than for 2009.

### T-bills

The running yield of the T-bill stock is revalued at new market rates continuously during the year. This is, of course, due to T-bills maturing and being replaced by new T-bills normally within a period of three to six months. The running yield of the T-bill stock develops in line with the Riksbank's repo rate, which we see examples of in figure 1. The running yield of outstanding T-bills was 1.0 per cent at the end of 2010, which

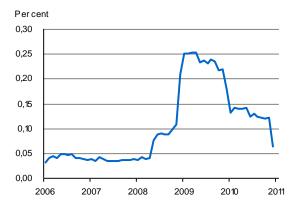
can be compared with 0.13 per cent in the previous year. During the year, we issued SEK 307 billion in T-bills at an average interest rate of 0.47 per cent. Gross borrowing was marginally higher than during 2009. The outstanding stock thus decreased during the year to SEK 85 billion compared with SEK 115 billion at the end of 2009.

### 2.3 Running yield at risk

The variation of the running yield is partly a function of the maturity benchmarks for the three types of debt. The maturity is stated in terms of the average time until payment of coupon or redemption. The maturity benchmarks are intended to control the variation of the expected cost. We expect the variations of the cost of the central government debt to be higher for a short than for a long maturity target. At the same time, we expect the cost of the central government debt to be lower for a short maturity target than for a long maturity benchmark.

Figure 2 shows one-year rolling standard deviation of monthly changes of the running yield. The variation of the historical running yield does not describe the expected risk but is a way of describing the risk "with the benefit of hindsight". Expected risks are forward-looking and may, for example, be calculated with the aid of Cost-at-Risk techniques.

Figure 2. VARIATION OF RUNNING YIELD



The figure shows that the variation of running yield was stable up until the outbreak of the financial crisis in 2008. The variation subsequently increased sharply. This increase is a result of the crisis in the financial markets, which led to lower and more volatile yields. The variation of running yield peaked at the beginning of 2009 and then started to decrease.

During 2010, the variation of running yield has continued to decrease and has largely returned to the levels that existed prior to the summer of 2008. At the same time, the running yield has decreased further since 2009.

Table 1. RUNNING YIELD (GER)<sup>1</sup>

	Gove	rnment bonds	5	T-bills <sup>4</sup>			Inflation-linked bonds <sup>5</sup>		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
Total debt <sup>2</sup> (SEKbn)	508	505	557	139	115	92	207	200	212
Borrowing <sup>3</sup> (SEKbn)	47	110	58	453	304	307	20	10	29
GER total debt (%)	4.36	4.15	3.99	2.82	0.13	1.03	2.83	2.77	2.47
GER borrowing (%)	3.82	3.17	2.63	3.76	0.43	0.47	1.79	1.42	0.42

<sup>1)</sup> 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.

<sup>2)</sup> Assumed loans are not included.

 $<sup>^{\</sup>rm 3)}$  Volume issued in auctions and sale part of exchange transactions.

 $<sup>^{\</sup>rm 4)}$  Including liquidity bills and extra bills outstanding at the year-end 2008/2009.

 $<sup>^{5)}</sup>$  The volume of inflation-linked bills includes accrued inflation.

# 3 Strategic decisions

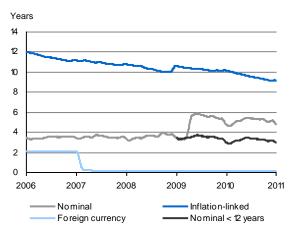
# 3.1 The maturity of the different types of debt

The Government decided in the 2010 Guidelines for Central Government Debt Management on the maturity benchmark for the respective type of debt. This was 3.2 years for the nominal krona debt, 9.4 years for the inflation-linked debt and 0.125 years for the foreign currency debt.

Steering of the maturity of the nominal krona debt is divided up so that loan instruments with shorter maturities than twelve years are steered towards the maturity benchmark of 3.2 years. Loan instruments with maturities exceeding twelve years are instead limited by a volume ceiling of SEK 60 billion for 2010.

This division of the steering system is due to the rapid upward revision of the borrowing requirement during 2009, at the same time as rates fell sharply. The conditions for issuing government bonds with long maturities appeared to be very favourable. The Government then revoked the decision, at the proposal of the Debt Office, on the benchmark for the maturity of the nominal krona debt, enabling the Debt Office to issue a large volume of 30-year bonds.

Figure 3. THE MATURITIES OF TYPES OF DEBT



Note: 30 day moving average.

As the 30-year bond has great impact on the maturity of the krona debt, we considered that it would not be meaningful to include this issue in the maturity benchmark. We do not intend to use bonds longer than twelve years in our regular funding but only occasionally when where there is strong demand for long maturities. The interest rate refixing period for the total nominal krona debt is around five years.

# 3.2 Distribution of the foreign currency debt

The central government debt consists of 15 per cent foreign currency debt. The composition of the foreign currency debt is based on a benchmark, which the Government allows the Debt Office to set. The benchmark is normally changed every third year. The benchmark was last changed at the end of 2008 and applies until 2011. The benchmark applies to net exposure.

The foreign currency debt is distributed among several currencies to reduce the risk of individual currencies. However, an increased extent of diversification must go hand in hand with practical management and steering of the foreign currency debt. We therefore choose a benchmark among the seven largest and most liquid currencies USD, EUR, JPY, GBP, CHF, AUD and CAD.

We have previously emphasised limiting the risk of the foreign currency debt. However, conditions have changed since we have achieved the target of 15 per cent foreign currency debt. Compared with the previous benchmark portfolio, the share of euro has decreased while the debt in Swiss francs and Japanese yen has increased, according to table 2. The Canadian dollar is now included in the benchmark. The benchmark entails a greater diversification on different markets and a reduced concentration of euro.

Table 2. FOREIGN CURRENCY BENCHMARK AND REFERENCE PORTFOLIO

Currency	Benchmark 2009	Benchmark 2006	Reference portfolio 2009
EUR	45 %	65 %	83 %
USD	10 %	10 %	-
CHF	20 %	16 %	-
JPY	15 %	4 %	-
GBP	5 %	5 %	2 %
CAD	5 %	-	1 %
AUD	-	-	14 %

The basis for the benchmark for the period is the so-called reference portfolio<sup>2</sup>. The reference portfolio is the calculated

<sup>&</sup>lt;sup>2</sup> The design of the benchmark is based on the Black Litterman method. The reference portfolio a-priori added with our market scenarios provides the final benchmark. The minimum risk portfolio, "The reference porfolio", has been produced by mean variance optimisation based on costs for the period 1993-2008.

risk-minimising foreign currency composition. The reference portfolio is thus the starting point for the distribution and the benchmark is the portfolio that we assess will minimise cost while considering risks.

The background till our increasing the share of Swiss francs and Japanese yen is that it reflects our expectations of continued favourable interest rate levels in Japan and Switzerland in relation to the euro market. In our assessment, the lower borrowing costs would, taken as a whole, offset any strengthening of the currencies. Furthermore, we made the assessment that Australia with a growth-oriented mining industry was an expensive alternative to US dollars. The benchmark is based on our view of cost benefits in the long term.

The cost of the benchmark portfolio was higher than for the comparison portfolio during the year. This was mainly due to the Swiss franc, the Japanese yen and the Canadian dollar strengthening in relation to the euro. Overall, the *relative cost* was five percentage points higher than in 2010. This is partly offset by a positive result for 2009, when the cost of the foreign currency composition was three percentage points lower than the comparison portfolio. We benefit, of course, at the same time overall from the strengthening of the Swedish krona in relation to the benchmark currencies by over four percentage points during 2010.

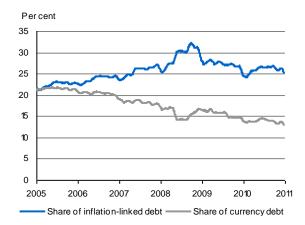
### 3.3 Share steering

For 2010, the Government decided that the central government debt should consist of 25 per cent inflation-linked debt in the long term. The share of foreign currency debt was to be15 per cent 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 with 2009.

The share of foreign currency debt amounted to 14 per cent on average during 2010. The most important cause of the share being below the benchmark was the strong appreciation of the krona that took place during the year. At the end of the year, the share also decreased due to the large seasonal borrowing requirement in December, which is mainly covered by borrowing in kronor.

The share of the inflation-linked debt was, however, larger than the benchmark, on average 26 per cent during 2010. It is difficult to steer the share of the inflation-linked debt as there is no developed derivative market available. Any measures to reduce the share would probably be expensive. We have therefore decided to allow the share to exceed the benchmark until the shortest inflation-linked bonds mature.

Figure 4 DEBT SHARES 2006-2010



Note: 30-day moving average.

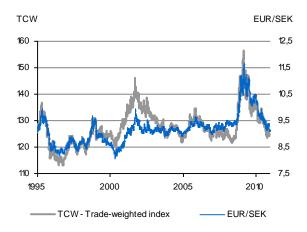
### 3.4 Active management

Alongside the ordinary funding of the central government debt, the Debt Office has been allowed to take positions through "active management". A position means that we increase or decrease exposure in a particular type of asset on the basis of our assessment of how its value will develop. We can take currency positions in Swedish kronor and interest and exchange rate positions in the international markets. The goal is to reduce the state's interest costs without incurring too great risks. A gain in active management reduces the state's interest costs by the same amount. Active management is a normal component of asset management but is unusual among central government debt managers.

### Position for a stronger krona

In September 2010, the Debt Office announced that we would start a gradual winding up of our long-term position for a stronger krona. The exchange rate then appeared to be at relatively normal levels.

Figure 5 THE DEVELOPMENT OF THE EXCHANGE RATE FOR THE KRONA



At the year-end, the position had decreased from SEK 50 billion to SEK 27 billion. The total value of the position, including the unrealised portion, then amounted to SEK 7.8 billion. It will only be possible to report the size of the final exchange gain when the entire position has been closed.

The strategic position for a stronger krona in relation to the euro was gradually built up during 2009. This decision was based on the assessment that the krona, at an exchange rate to the euro which was over SEK 11 for a time, was substantially undervalued, i.e. the krona was cheap and the euro expensive to a corresponding extent. We therefore increased the debt in euro and reduced the debt in kronor.

### Focus on the debt problem in the financial markets

During the spring of 2010, the high level of central government debt created problems for some countries in the eurozone when the markets started to doubt the ability of these countries to repay their debts. This led to rapidly increasing loan costs, which ultimately led to the IMF and the EU drawing up a joint programme to lend money first to Greece in April and then to Ireland in October. Some market participants, when there was most focus on these two countries' problems, also considered that Spain and Portugal would need assistance from the IMF and the EU. However, this was not the case. The savings measures that were required of Greece and Ireland for them to be able to borrow money led to sharp protests, in particular in Greece, where the protests turned into strikes and in some places riots.

However, Greece and Ireland are relatively small countries in what may be called Europe's periphery. The larger countries in what is usually regarded as the core, Germany and France, were not significantly affected by this turbulence but, on the contrary, showed good growth which led to a division of the eurozone. This division created problems for the ECB as it had to take into account, on the one hand, countries in economic crisis with rapidly rising borrowing costs, and on the other hand, countries reporting sound growth and rising economic optimism, in the assessment of an appropriate key policy interest rate for the whole of the Eurozone. The ECB decided during 2010 to let the key policy interest rate remain unchanged which primarily took into consideration the countries in crisis.

In the United States, it was decided instead to introduce a further period of quantitative easing, where the central bank purchases fixed income securities on the secondary market to get the economy moving again. Retrospectively, it can be argued that it was probably the signal itself from the Fed that it was prepared to do what was required to get the economy moving again, which led to economic recovery. For a short period during the summer, economic data became available which showed that the US economy was perilously close to tipping over into a recession. After the Fed announced early in September that it was resuming quantitative easing to get the economy moving and avoid a so-called double dip, the negative trend of economic data reversed, which also led to a period of recovery where the US stock exchanges rose under controlled forms during the autumn/winter. Other types of assets such as commodities rose during the autumn due to more liquidity from the Fed.

2010 was also the year that Asia showed that it was a region moving strongly forwards. After the crisis years of 2008-2009, most Asian countries quickly started to grow again. Growth resulted largely from the countries exporting to China which in turn overtook Germany as the world's largest exporter. During 2010, China also passed Japan in terms of the size of the economy to become number two in the world after the United States.

### Fast recovery in Sweden

The recovery of the Swedish economy during 2010 exceeded expectations. The Riksbank was one of the first central banks to start an increase in the key policy interest rate from the crisis levels that the rate had been reduced to during 2008-2009. During the latter part of 2010, inflation rose in Sweden. In July, the key policy interest rate was increased with further increases at each of the three meetings during 2010. This together with the strong GDP figures during the year led to the krona strengthening sharply during the year. After having risen during the first half of 2010, unemployment fell during the latter half of the year to levels that were last seen at the beginning of 2009.

# 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.

The factor that had the greatest impact on funding during 2010 was the rapid economic recovery in Sweden and the ensuing improvement in central government finances. The budget was practically balanced which was a marked change compared with the large budget deficits in 2009.

Thanks to strong central government finances, Sweden was not affected by the uncertainty that characterised the market for government securities in many other countries during 2010. We borrowed at low interest rates both in comparison with previous periods and compared with most other central government borrowers.

When the borrowing requirement decreased, we concentrated funding on nominal government bonds and reduced other funding in the first place, in particular borrowing in foreign currency bonds.

A reduced offering of T-bills in combination with low interest rates has led to a decrease in our investor base for T-bills. The depth and liquidity of the T-bill market has gradually deteriorated. Demand for T-bills was limited at times and two of our T-bill issues were undersubscribed. This meant that we had to replace part of the planned T-bill funding with other short-term funding, primarily in commercial paper.

The market for inflation-linked bonds is also considerably less deep and liquid than the market for nominal government bonds. The inflation-linked debt is concentrated to a few large loans and there can accordingly be large fluctuations in the share of inflation-linked debt when a loan matures. Large volumes that mature also constitute a re-investment risk for our investors.

During the spring, a sounding of the inflation-linked market took place when we gathered points of view from dealers and investors on the composition of the inflation-linked debt. This sounding provided support for a strategy that aimed in the long run to distribute the inflation-linked debt over a number of smaller loans. A strategy of this kind would facilitate handling of maturing loans, both for the Debt Office and for the investors. A number of outstanding inflation-linked loans

were also considered to promote liquidity in the market provided that the individual loans were not too small.

Table 3. FUNDING IN GOVERNMENT SECURITIES

SEK Billion	2006	2007	2008	2009	2010
Net borrowing requirement <sup>1</sup>	-18	-103	-135	176	1
Change in cash balance and retail market <sup>2</sup>	-39	-35	57	-138	27
Maturities, buybacks, etc.	71	79	96	181	38
Government bonds	36	62	68	121	3
Foreign currency loans	35	17	28	59	36
Total	13	-59	18	218	67
T-bill borrowing, net <sup>3</sup>	-78	-110	-32	-24	-30
Bond borrowing, gross	91	51	50	243	97
Foreign currency bonds	20	5	0	130	31
Inflation-linked bonds <sup>4</sup>	7	5	3	3	8
Nominal government bonds <sup>5</sup>	64	41	47	110	58
Funding	13	-59	18	218	67

<sup>1)</sup> A negative borrowing requirement means that the state budget is in surplus

### 4.1 Nominal krona funding

### Nominal government bonds

The major part of borrowing took place in nominal government bonds. In all, we issued SEK 58 billion in 2010. This is a reduction compared with 2009 when we issued SEK 110 billion. The reduction in 2010 was due to a reduced borrowing requirement.

Table 4. VOLUME ISSUED IN SEK MILLION AND RUNNING YIELD PER LOAN

2010					
Loan	Due date	Coupon	No. of auctions	Volume issued	Yield <sup>1</sup>
1041	2014.05.05	6.75	2	5 499	1.79
1047	2020.12.01	5	11	29 177	2.97
1049	2015.08.12	4.5	7	18 499	2.27
1050	2016.07.12	3	1	2 500	2.41
1053	2039.03.30	3.5	2	2 175	3.51
TOTAL				57 850	

<sup>1)</sup> Running yield

 $<sup>^{\</sup>rm 2)}$  The change in liquidity management instruments and retail market loans, net

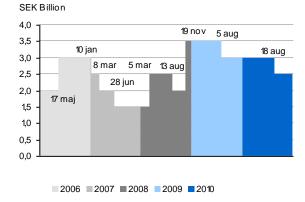
 $<sup>^{\</sup>rm 3)}$  The net of issues (excluding exchanges) and maturities during the calendar year

 <sup>4)</sup> Issue volume per auction, average
 0.4
 0.5
 0.4
 0.5
 0.7

 5) Issue volume per auction, average
 2.8
 1.9
 2.2
 3.3
 2.8

Nominal government bonds are issued in auctions that are held every other week. The issue volume was SEK 3 billion per auction until August when it was reduced to SEK 2.5 billion. It then remained at SEK 2.5 billion for the rest of the year.

Figure 6. AUCTION VOLUMES OF NOMINAL GOVERNMENT BONDS OFFERED



The Debt Office has a policy of primarily issuing in certain standard maturities, two-, five- and ten-year nominal bonds. This is maintained by our regularly issuing new ten-year bonds which subsequently roll down to become five- and then two-year bonds. During 2010, however we did not need to issue any new ten-year bond since the segment was already covered by a long bond with a maturity of almost ten years.

Table 5. AVERAGE VALUE OF COVER RATIO AND AUCTION YIELD FOR NOMINAL GOVERNMENT BONDS 2006–2010

Per cent	2006	2007	2008	2009	2010
Cover ratio <sup>1</sup>	3.87	3.28	2.54	2.35	2.33
Average auction yield 2	3.60	4.07	3.82	2.86	2.63

<sup>1)</sup> Volume of bids received in relation to issue volume offered, syndication in 2009 is not included.

According to table 5, the running yield fell between 2009 and 2010 by 0.23 percentage points. This reflects the fall in bond yields during 2010 compared with 2009.

Bond issues had an average cover ratio at approximately the same level as in 2009. The cover ratio shows the relationship between the total volume of bids in an auction and our issue volume offered.

Two of the year's auctions were undersubscribed. In all, SEK 645 million of the bond issues offered were not sold. One of these auctions was the 30-year maturity in June. Demand is difficult to assess. Trading of the bond is largely dependent on the interest of end investors and it is expensive for the

dealers to hold. On this occasion, there was a lack of customer interest both in both the long bonds offered by the Debt Office. Falling long-term yields due to our publication the same morning of reduced borrowing requirement may also have contributed to a lower demand.

The second undersubscribed auction took place in October just after the termination of the banks' loan facility at the Riksbank. This led to several banks, including our dealers, selling large holdings of long bonds. Turbulence in the global financial markets also made customers hesitant.

### **Short-term funding**

### T-hills

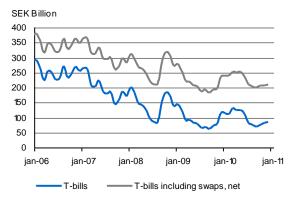
The outstanding stock was SEK 85 billion at the end of 2010, which is a decrease of SEK 30 billion compared with December 2009.

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

SEK Billion	2006	2007	2008	2009	2010
Funding in T-bills, net1	-78	-110	-32	-24	-30
Exchanges of government bonds for T-bills Change of T-bill stock	44 -34	27 -84	0 -32	0 -24	0 -30
Interest rate swaps, net <sup>2</sup>	9	14	22	-13	5
Change of T-bill stock including swaps in SEK, net	-25	-70	-10	-37	-25

<sup>1)</sup> Net of issues (excluding exchanges) and maturities during the calendar year

Figure 7. DEVELOPMENT OF T-BILL STOCK 2006-2010



Since 2008, the Debt Office has applied a new policy for T-bill borrowing with four outstanding maturities up to at most six months. Previously, we had six maturities up to twelve months. The last twelve-month bill was issued in December 2007

Demand for T-bills has at times been so limited that we have had to reduce the planned borrowing in favour of other shortterm funding, mainly commercial paper. One reason may be

<sup>&</sup>lt;sup>2)</sup> Only outright auctions, i.e. exchange auctions and syndication are not included.

<sup>&</sup>lt;sup>2)</sup> Net of swaps entered into and maturing

that some investors, who must buy T-bills, push down interest rates. The low interest rates lead to other investors temporarily withdrawing from the T-bill market.

Two of 2010's 24 auctions were undersubscribed and we reduced the issue volume. This meant that a total of just under SEK 13 billion of the T-bills offered were not sold. However, this did not lead to any problem for our funding as T-bill funding was replaced in the short term by funding in liquidity management.

We 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.

The running yield at the auctions was 0.47 per cent during 2010 which was approximately at the same level as during 2009. It was then 0.43 per cent.

Table 7. AVERAGE VALUE OF COVER RATIO AND RUNNING YIELD FOR T-BILLS

Per cent	2006	2007	2008	2009	2010
Cover ratio <sup>1</sup>	2.04	2.50	2.35	2.32	1.91
Average auction yield <sup>2</sup>	2.52	3.60	3.58	0.43	0.47

<sup>1)</sup> Volume of bids received in relation to issue volume.

### Interest rate swaps

During 2010, we swapped SEK 34 billion of bond borrowing for short Swedish interest rate exposure and SEK 10 billion for short interest rate exposure in foreign currency. The average maturity of the swaps was the same as in bond borrowing during 2010.

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 kronor (Stibor) to shorten the interest rate refixing period.

Interest rate swaps enable us to maintain a shorter maturity in the debt than we would otherwise be able to do. 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.

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. It is only when they have matured that we will know the result. The swaps made during 2010 thus have a number of years left before the result can be calculated ex post.

Figure 8. INTEREST RATE SWAPS, ACCUMULATED RESULT

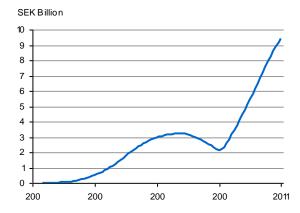


Figure 8 shows the computed outcome since we introduced swaps in the borrowing in kronor in 2003. The outcome corresponds to the difference between the floating interest we pay and the fixed interest we have received to date in the swaps. Since the start in 2003, the use of swaps has reduced the costs of the central government debt by SEK 9.4 billion<sup>3</sup> given the actual borrowing in government bonds. In the past five years, the average cost saving has been SEK 1,5 billion per year, see table 8.

Table 8. SAVING PER YEAR ON OUTSTANDING SWAPS

SEK billion	2006	2007	2008	2009	2010	Average
Saving	1.20	1.17	-1.00	3.32	3.94	1.53

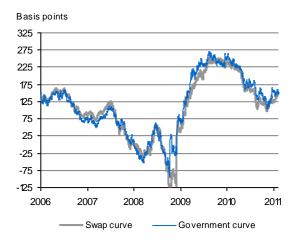
The cost benefit of shortening the maturity through swaps can be illustrated by the slope of the swap curve, i.e. the difference between the fixed interest we receive and the floating interest we pay. The alternative to short interest rate exposure through swaps is to replace borrowing in government bonds by T-bills. The saving we then obtain depends on the corresponding slope of the government curve. Figure 9 shows the difference between the 5-year swap rate and 3-month Stibor together with the difference between the five-year bond yield and the three-month T-bill interest rate.

In general, it can be said 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 through swapped bonds was generally cheaper than borrowing in T-bills. In recent years, T-bills would instead have generated a greater saving than swapped bonds.

<sup>&</sup>lt;sup>2)</sup> Only outright auctions, i.e. exchange auctions are not included.

<sup>&</sup>lt;sup>3</sup> This amount also includes the result from SEK 21 billion of swaps that matured between 2003 and 2009.

Figure 9. CURVE STEEPNESS BETWEEN 3 MONTHS AND 5 YEARS



In practice, however, it is not reasonable to replace swapped government bonds by T-bills. The market for T-bills is not sufficiently deep and it would create too great a refinansing risk.

### Result of nominal krona funding

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

In our assessment, funding has functioned well even if not every auction was fully subscribed. This is confirmed by the questionnaire surveys addressed to 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 2010, the Debt Office issued SEK 7.7 billion in inflation-linked bonds. The outstanding inflation-linked debt increased from SEK 199.7 billion to SEK 211.6 billion at the end of the year. The fact that the debt increased more than the volume we issued in the auctions is partly due to our issuing SEK 3 billion net in market support exchanges and partly to the upward adjustment of accrued inflation compensation.

In the light of the shortest inflation-linked bond approaching maturity, we introduced a new inflation-linked loan during 2010. Loan 3107, with maturity date 1 June 2017, was issued for the first time on 23 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 inflation-linked bond stock was small.

The share of inflation-linked debt of the total debt amounted to 26 per cent on average during 2010. According to the Government's guidelines, the share of the debt should be steered towards 25 per cent in the long term.

When we revised the forecast for the borrowing requirement in 2010 downwards, we opted to retain the planned borrowing in inflation-linked bonds despite the share of the inflation-linked debt being expected to exceed the benchmark during the year. Our assessment was that a reduction from what was already a low level would have little effect on the debt share but that there would be a risk of a marked deterioration in the liquidity of the inflation-linked bond market. Furthermore, the inflation-linked share will decrease as loan 3106 matures in April 2012.

An additional reason why we were able to maintain the issue volume was that we reduced the inflation-linked share through exchanges in connection with our introducing the new inflation-linked bond 3107. In the exchange auctions, we bought back loans with high accrued inflation compensation. This meant a net reduction in the inflation-linked debt including inflation compensation at the same time as we built up the volume and thus liquidity of the new bond.

The structure of the inflation-linked debt with a few large outstanding loans gives us little flexibility in borrowing. Large volumes may be difficult to handle when the loans mature, at the same time as it entails a re-investment risk for our investors. In this perspective, it would be desirable to distribute the inflation-linked debt to a number of smaller loans. With a view to evaluating a strategy of this kind, a sounding of the inflation-linked market took place in the spring of 2010.

This sounding provided support for changing the composition of the inflation-linked debt in the long run towards a number of smaller loans. A change of this kind would reduce the reinvestment risk and moreover promote liquidity provided that individual issues were not too small.

Table 9. CHANGE IN THE INFLATION-LINKED DEBT DURING 2010

Outstanding inflation-linked stock, 31 December 2009, SEKbn	199.7
Outright auctions	7.7
Switch auctions	-0.1
National Debt Savings, Inflation-linked	0.0
Exchanges	3.0
Assumed inflation-linked loans	0.0
Inflation adjustment	1.3
Outstanding inflation-linked stock, 31 December 2010,	
SEKbn	211,6
<del></del>	

Inflation-linked rates remained low during 2010. The running yield was 0.51 per cent during 2010. On two occasions, the

shortest inflation-linked loan was issued at a negative rate. A negative inflation-linked rate indicates that inflation is expected to exceed the nominal rate for the corresponding maturity.

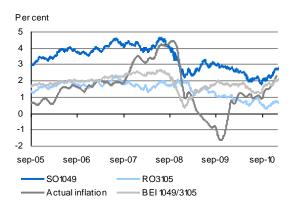
Table 10. AUCTIONS OF INFLATION-LINKED BONDS

SEK Billion	2006	2007	2008	2009	2010
Issue volume <sup>1</sup> , SEK billion	3.8	-6.8	-1.4	-1.8	11.9
Volume sold, <sup>2</sup> SEK billion	6.7	5.0	2.6	3.0	7.7
Cover ratio <sup>3</sup>	4.0	5.16	3.18	4.96	5.34
Average auction yield <sup>4</sup> , per cent	1.62	1.87	1.79	1.46	0.51
BEI <sup>5</sup> , per cent	1.89	2.21	2.11	1.67	1.73

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

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.

Figure 10. INTEREST RATES, BEI AND ACTUAL INFLATION



The above figure shows the development of market rates for the nominal loan 1049 (4.50 per cent, August 2015) and the inflation-linked loan 3105 (3.5 per cent, 1 Dec 2015). The figure also shows that the break-even inflation varied between 0.3 and 2.7 per cent by an average of 1.5 per cent during 2009.

During 2008, break-even inflation fell to historically low levels. This reduction reflected both expectations of a cyclical downturn and thus lower inflation but it was also the result of

strong demand for nominal government bonds due to the financial crisis. During 2010, break-even inflation rose again to more normal levels.

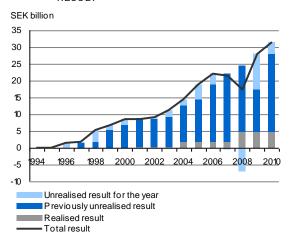
Upward inflation adjustment on inflation-linked bonds was 1.5 per cent in 2010 measured as the development of CPI<sup>4</sup>. Break- even inflation was 1.73 per cent in our auctions during 2010. Whether the inflation-linked borrowing in 2010 is successful from a cost perspective, will be established only when the respective bonds mature and we know what the realised inflation was.

A large part of the accumulated unrealised result derives from low inflation rates in previous years. The average inflation since the start in 1994 until the end of 2010 has been around 1.3 per cent, which is clearly lower than the average break-even level we have issued at.

### Result of inflation-linked borrowing

Although the rate of inflation increased during 2010, 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 3 billion during the year.

Figure 11. INFLATION-LINKED BONDS, INDICATIVE RESULT



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 buyand-hold strategy, which reduces liquidity in the market. We hope that our long-term strategy for the composition of inflation-linked debt will contribute to improving liquidity.

14

 $<sup>^{2)}</sup>$  Total sold volume in the outright auctions excluding switch auctions and buybacks.

<sup>&</sup>lt;sup>3)</sup> Bid volume submitted in relation to offered issue volume outright auctions.

<sup>&</sup>lt;sup>4)</sup> Weighted average interest rate over the year in outright auctions.

<sup>5)</sup> Average break even-inflation in the outright auctions.

Inflation was 1.5 per cent on average for the period October 2009 to September 2010. The inflation-linked bonds are linked to CPI with a three-month lag.

### 4.3 Foreign currency funding

As a result of the reduced borrowing requirement, borrowing in foreign currency decreased during the year. 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 kronor is replaced by a short interest exposure in foreign currency and that the amount borrowed is exchanged to foreign currency. See the Box Krona/swap borrowing for a more detailed description. The Debt Office can also borrow in foreign currency by issue of commercial paper with a maturity of up to one year.

Overall, bond borrowing in foreign currency amounted to SEK 31 billion in 2010. This was done by issue of three dollar loans totalling USD 4.4 billion. Two loans were raised in April: USD 1.4 billion in a one-year bond and USD 1 billion in a three-year bond. The third loan, USD 2 billion, in a two-year bond was raised in November. Two of these loans, equivalent to SEK 24 billion, were raised to re-finance loans on behalf of the Riksbank. In addition, we have currently refinanced an outstanding stock of around SEK 15 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 2010, we also lent the equivalent of SEK 1.6 billion to Iceland. As the loan amount was relatively small, no separate foreign currency loan was raised for this purpose.

Table 11. BOND FUNDING IN FOREIGN CURRENCY

SEK billion	2006	2007	2008	2009	2010
Foreign currency bonds, funding	20	5	0	130	31
Of which					
On-lending	0	0	0	81	26
Excluding on-lending	20	5	0	49	6
Maturities, bonds	-35	-17	-28	-59	-36
Change in foreign currency bond stock	-14	-11	-28	71	-4
Short-term borrowing, including forwards, net	-5	3	-1	0	0
Change in the foreign currency debt	-19	-8	-29	71	-4
Currency swaps, net	2	-28	-17	32	2
Change in the foreign currency debt including swaps	-17	-36	-46	103	-2

Since 2002, dollar loans have been the foremost and most favourable source of the Debt Office's direct borrowing in foreign currency. The favourable terms and the fact that the Riksbank demanded dollars led to our issuing all bonds in dollars, both for the Riksbank and on our own behalf.

### Krona/swap funding

In a krona/swap transaction, we first borrow in the Swedish bond market. We then make a swap in which we receive a fixed swap rate that is higher than the bond interest rate. At the same time, we pay a floating rate in foreign currency. The exposure in the bond rate is thereby eliminated. This transaction is a combined interest rate and currency swap (basis swap). Within the framework of the swap, we then exchange the kronor we have received into foreign currency with our counterparty. The result is that we have issued a bon loan in kronor but receive the amount and pay variable interest in foreign currency.

When the swap matures, we exchange the amount borrowed with our swap counterparty. 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 krona amount. To be able to exchange the amount back to kronor, 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.

Concern about problems with public finances has marked the international capital market during 2010. Despite our foreign currency loans being raised during periods when this concern was tangible, the issues could take place successfully. Compared with 2009, the Debt Office has borrowed at lower cost, which largely depends on lower interest rates globally. Our loan terms are favourable compared with many other countries, which can be regarded as confirmation of the high credit rating of the Swedish state. The majority of the investors who buy our bonds are central banks which are looking for a high credit rating.

The strengthening of the krona that has taken place during the year means that the krona/swap borrowing was adjusted upwards at the end of the year to achieve the foreign currency debt's benchmark of 15 per cent of the total debt. During 2010, the krona/swap borrowing was equivalent to SEK 10 billion.

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 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 12 are therefore not directly comparable.

### Result of foreign curency borrowing

Compared with previous years, the foreign currency borrowing requirement has been limited. The low offering in combination with a good credit rating has led to our loans retaining, or even strengthening, their high value in the secondary market. A stable value in the secondary market is important for the investor 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.

Loans terms improved compared with previous years, which did not apply to all borrowers in the capital market. The high level of demand for Swedish government bonds should be regarded as a good rating of our competitiveness in the capital market.

Table 12. COSTS FOR FOREIGN CURRENCY BONDS AND KRONA/SWAP FUNDING

Basis points compared with USD Libor	2006	2007	2008	2009	2010
Bonds <sup>1</sup>	-24	-33	-	1	0
Basis points compared with Euribor	2006	2007	2008	2009	2010
Bonds <sup>2</sup>	-	-	-	20	-
Krona/currency swaps <sup>3</sup>	-31	-54	-73	-46	-73

<sup>1)</sup> Three months' floating bank rate

During 2010, three-quarters of the foreign currency borrowing requirement was covered by issuing dollar loans at a cost corresponding to 0 basis points in relation to three months' USD Libor, i.e. the standardised bank rate for dollars. After commissions, this corresponds to around 3 basis points above USD Libor. The remaining quarter of the borrowing requirement for 2010 was borrowed in kronor, which was subsequently swapped for foreign currency corresponding to a cost of 73 basis points below Euribor.

Favourable terms during the late autumn of 2010 enabled an attractive fixing of the swap spread for a smaller volume. Swap borrowing was thus cheaper although it is not certain that this would have been the case if we had markedly increased the swap volume. The major part of the bond borrowing was raised on behalf of the Riksbank. In future years, it may come into question to use krona/swap borrowing also in on-lending to the Riksbank if there is still a cost benefit.

Commercial Paper was issued mainly with maturities between one and three months. We have primarily issued in dollars as this market is most liquid and makes it possible to reach more investors. The cost in dollars was around Libor - 3 to Libor- 6 basis points. För commercial paper in euro, the cost was around 5 basis points below Euribor in the shorter

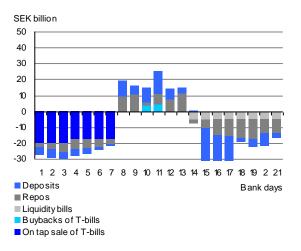
maturities and 10-15 basis points below Euribor in the longer maturities.

### 4.4 Liquidity management

The Debt Office does not only manage central government long-term and medium-term borrowing, but also the states' short-term funding and investment requirements. Liquidity management is taken care of by the 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 instruments that are additionally 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), commercial papers and forward contracts in mortgage bonds (mortgage bonds with postponed liquidity). We deal in both kronor and foreign currency.

Figure 12. LIQUIDITY MANAGEMENT DURING A TYPICAL MONTH (POSITIVE FIGURES CORRESPOND TO SURPLUSES)



The liquidity during a typical month normally follows a pattern with surplus liquidity a couple of days in the middle of the month in connection with tax payments, see figure 12. (Positive figures mean that the state has a surplus in its payments). Even though deviations from this pattern are rather the rule than the exception, the basic pattern may be worth bearing in mind. During 2010, there was the same basic pattern although there were marginally more days with a deficit than days with a surplus.

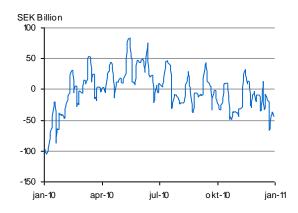
<sup>2)</sup> Six months' floating bank rate

<sup>3)</sup> Three months' floating bank rate

The liquidity management was more complex than before during 2008 and 2009, which was mainly due to a more extensive management of foreign currency. In connection with this, we built up a larger network of counterparties and introduced new instruments in liquidity management. The new structure has functioned well for liquidity management during 2010.

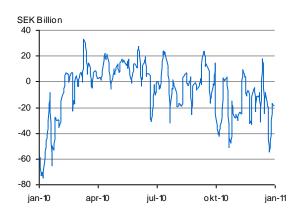
The figure below shows the daily balance of debts and investments in liquidity management. This balance can be regarded as a measure of the daily cash management.

Figure 13. NET HOLDING IN LIQUIDITY MANAGEMENT,
(POSITIVE FIGURES INDICATE SURPLUS)



Part of the liquidity management relates to slightly longer maturities than overnight loans and investments. A narrower measure of our cash position is shown in figure 14. This is the daily position on the deposit market.

Figure 14. NET INVESTMENT IN THE DEPOSIT MARKET,
(POSITIVE FIGURES INDICATE SURPLUSES)



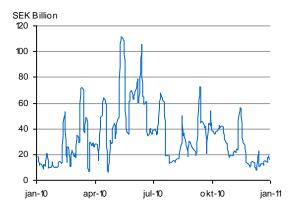
For longer periods than previously, it has been a matter of managing liquidity surpluses. We have also managed periods with relatively large cash surpluses in foreign currency. At the beginning of 2009, large amounts were borrowed, both in kronor and foreign currency, as the borrowing requirement

was expected to increase at the same time as there was a risk that it could increase considerably more than we had forecast.

In the short term, a cash surplus arose, which had to be invested. This surplus was invested, inter alia, in repos, T-bills and short-term securities in foreign currency. The cash surpluses from 2009 continued during 2010. The most important cause of the liquidity surplus was that central government finances proved to be stronger than we initially expected. Neither were any of the more pessimistic, although conceivable, scenarios realised for the Swedish economy and the financial sector.

Periodically, the market support repo volumes were larger than normal due to the strong demand for repos in short-term government bonds. The repos mean that we also receive money during periods when we do not have a borrowing requirement. Furthermore, we received large amounts, around SEK 20 billion, in the form of collateral as the market value of outstanding swaps rose due to the low interest rates.

Figure 15. THE DAILY INVESTMENTS OF THE DEBT OFFICE (POSITIVE FIGURES INDICATE SURPLUS)



The prerequisites for investment of surpluses in the Swedish market were normalised at the end of the year. It was again possible to invest in the overnight market at the Riksbank's repo rate. During 2008 and 2009, the Riksbank increased its lending to dampen the effects of the financial crisis on the financing ability of the banks.

The surplus liquidity meant that the overnight rate was 10 basis points below the Riksbank's repo rate, on a par with the rate at which the Riksbank carries out so-called fine-tuning transactions. This meant that our return on the investments in the overnight market was lower to a corresponding extent. In order to improve the return, we invested the surplus during the period in short-term securities in kronor to the extent that it was possible. In October 2010, the last of the Riksbank's long fixed-interest loans matured and shortly afterwards the

difference between the overnight rate and the repo rate disappeared.

The market for T-bills has not functioned without friction, see the section on T-bills in 4.1. As a complement to the Swedish T-bill market, we have issued commercial paper in dollars and then swapped for Swedish kronor. Demand for our issues in the international markets has been good. We have been able to issue loans at a low interest rate and at the desired volumes. Moreover we have been able to issue at the times and maturities that have suited us best, which has entailed increased flexibility in liquidity management.

### Flows in foreign currency

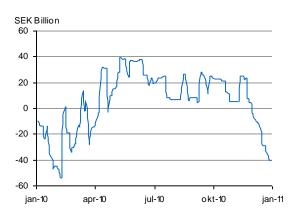
Liquidity management is normally handled in Swedish kronor. This means that the short-term balance in foreign currency is exchanged for Swedish kronor to cover deficits in kronor. In the event of payments in foreign currency, the Debt Office borrows in kronor and then exchanges this for the correct payment currency.

On certain occasions, we depart from this principle. This may be when borrowing or investment requirements are very large. To avoid too great dependence on and thereby exposure in, the krona market, we borrow or invest in foreign currency. December is normally a month with large deficits, which was also the case in 2010. In December 2010, the borrowing requirement was just under SEK 98 billion. We then borrowed the equivalent of SEK 40 billion in commercial paper and hedged this amount with forward contracts, see section 4.3.

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.<sup>5</sup>

The Debt Office endeavours in the daily management of currency exchanges to use occasions with good liquidity to reduce costs. The Debt Office kept within the cost-neutral path defined by the Board during the past year.

Figure 16 NET HOLDING IN LIQUIDITY MANAGEMENT IN FOREIGN CURRENCY. (POSITIVE FIGURES INDICATE SURPLUS)



neutral and mean that the Debt Office does not take any active positions in krona

exchanges.

<sup>&</sup>lt;sup>5</sup> To achieve an even distribution of net exchanges, a calculation is made each month of the remaining net exchanges during the year. This forecast is divided evenly over the remaining months of the year and constitutes the Debt Office's benchmark. The Board has decided on a deviation mandate of SEK ±500 million. The benchmark including the deviation mandate defines a so-called cost neutral path for net exchanges. Transactions within the interval are regarded as result-

# 5 Active management in foreign currency

The Government has authorised the Debt Office to engage in active management in foreign currency. According to the guidelines, the total risktaking during 2010 must not exceed SEK 600 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.

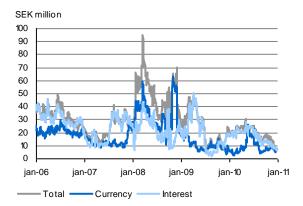
The Debt Office uses external managers to diversify management and to obtain an idea of the efficiency of our own management. These conduct management using the same mandate as the Debt Office but on a considerably smaller scale.

# 5.1 Result of active management during 2010

The Debt Office's current active management in foreign currency produced a positive result of SEK 157 million per year on average during the past five-year period. According to our guidelines, ongoing evaluation shall take place in five-year periods. The current management produced a negative result of SEK 324 million for 2010. This result consisted of SEK -587 million for the Debt Office's own management and SEK 263 million for the external management, see table 13.

The Debt Office took positions, which produced an average VaR value of SEK 18 million during 2010. Risk utilisation was thereby slightly lower than normal. This was largely due to the considerable uncertainty about economic development in the wake of the financial crisis, but also because no few than three key staff members in active management left during the summer of 2010.

Figure 17. RISK UTILISATION IN ACTIVE MANAGEMENT, VALUE AT RISK 2006-2010



### Interest rate positions

At the beginning of 2010, the Debt Office had taken positions for higher two-year interest rates in the United States and Germany. The increasing turbulence around the development in Greece and the other so-called PIIGS countries would subsequently lead to clear downward pressure on the German interest rate. As the US interest rate also fell somewhat at the start of 2010, the result of the Debt Office's interest rate positions was a loss of around SEK 130 during the first five weeks of the year.

After a calmer development during February and March, concern again increased relating to Greece and the other PIIGS countries during the second quarter and the Debt Office again incurred losses on its interest rate positions. This time, the loss was as much as SEK 260 million. To reduce the risk of further losses, the position was now changed so that we took a position for a reduced spread between the German and the US two-year rate.

However, during the autumn, the spread increased instead of decreasing which led to Debt Office to gradually reduce the position. In December, the spread then decreased, whereby some of the previous losses could be recuperated. The loss on the Debt Office's interest rate positions during 2010 none the less amounted to almost SEK 500 million.

### Foreign currency positions

For the major part of 2010, the Debt Office had taken a position for an appreciation of the Norwegian krona and a depreciation of the Japanese yen in relation to the euro. While there was some appreciation of the Norwegian krona, the yen underwent a sharp appreciation instead of depreciation. The Debt Office had also taken a position for a stronger dollar in relation to the euro for a couple of periods during the summer and autumn of 2010 when the dollar instead weakened markedly. Finally, a smaller position for a stronger Swiss franc in relation to the euro produced some gain. Overall, the Debt Office's currency positions led to a moderate loss in this context of just over SEK 90 million, mainly due to an incorrect assessment of the development of the exchange rate of the yen.

### Result for external managers

To obtain a measure of goal fulfilment in the Debt Office's own active management, to spread the risks of the management and to increase competence at 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 2010, five different external managers were used: PIMCO, IPM/First Quadrant, Mellon, Amundi and Fortis (only during January 2010).

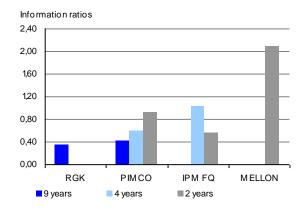
The managers' risk mandate is calculated on nominal reference portfolios which correspond to SEK 6 billion or SEK 8 billion per manager. The combined result for the external managers was SEK 263 million in 2010. This was a very good result far above the average for the past ten years. Mellon had the by far best result with slightly over 2.5 per cent of the managed capital. IPM/First Quadrant and PIMCO also succeeded well with a result around 0.5 per cent.

### Risk-adjusted result

The information ratio <sup>6</sup> is a generally used measure for reporting a risk-adjusted result. The information ratio shows the relationship between the result from management and the risk assumed to achieve the result. A high value means that the manager has taken relatively small risk in relation to the result achieved.

Figure 18 shows the risk-adjusted result during the past nine years for the Debt Office and the external managers that were active during the whole or parts of this period.

Figure 18. RISK-ADJUSTED RESULT OF ACTIVE MANAGEMENT



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

# 5.2 Result and evaluation 2006–2010

The most recent five-year period produced a positive management result of the current active management of almost SEK 800 million which is SEK 157 Million on average per year, see table 13. With the large difference in the result during 2010, the result of the Debt Office's active management has been far below the result in per cent which the external managers achieved during the past five-year period.

Since the Debt Office began active management in 1992, we have achieved a cost saving of almost SEK 12 billion. This positive result mainly arose during the years1992–1998, 2002–2004 and 2008–2009. It is primarily our currency positions that explain the strong figures in the most recent period, while the interest positions showed a very positive result during the earlier periods.

Table 13. RESULT OF ACTIVE MANAGEMENT IN FOREIGN CURRENCY, 2006-2010

Result in SEK million	2006	2007	2008	2009	2010	Average	
Total management	339	-238	492	514	-324	157	
Debt Office	348	-203	305	424	-587	57	
Of which:							
Interest positions	367	-241	44	138	-494	-37	
Currency positions	-19	38	261	286	-93	95	
External managers	-9	-35	187	90	263	99	
Result in per cent of managed amounts							
Debt Office	0.21	-0.12	0.18	0.25	-0.34	0.04	
External							

-0.03

-0.11

0.65

0.32

0.88

0.34

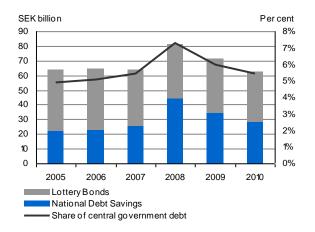
managers

<sup>&</sup>lt;sup>6</sup> 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.

# 6 Retail market borrowing

Retail market borrowing is targeted on private persons, small companies and organisations. On 31 December 2010, SEK 62.6 billion, or 5.4 per cent of the central government debt, had been borrowed in the retail market.

Figure 19. RETAIL MARKET BORROWING, TOTAL AND AS A SHARE OF THE CENTRAL GOVERNMENT DEBT 2006-2010



### Retail market borrowing produces cost saving

The Debt Office sells two products that are adapted for retail savers: lottery bonds and National Debt Savings.

During 2010, retail market borrowing decreased the costs for the central government debt by SEK 183 million. The aggregate cost saving for the five-year period 2006-2010 was SEK 882 million or SEK 176 million kronor on average per year.

Table 14. SAVING, RETAIL MARKET BORROWING

SEK million	2006	2007	2008	2009	2010
Lottery bonds	150	149	106	170	171
National Debt Savings	27	23	38	36	12
Total saving	177	171	144	206	183

### Continued high level of interest in lottery bonds

The underlying result for lottery bonds has been relatively stable in recent years. What has above all caused fluctuations is the limitation of physical lottery bonds (older bonds that were issued in paper form). In conjunction with limitation, unredeemed bonds were transferred to the result, which was thus improved. This is the main explanation for the result improving by SEK 1 million in 2010. Three lottery bonds matured during 2010 while we only issued two new bonds. Accordingly, the total volume of lottery bonds

decreased by SEK 2.6 billion to SEK 34.5 billion. A spring and an autumn loan were sold during the year. The issue in the autumn was the largest single issue since 1986.

The low alternative interest rate on bank savings was a contributory reason for the increased interest. Since the interest on lottery bonds is allocated by lottery, the individual customer has a chance of a good return even when the total share of profit allocated by lottery is low. In the past two years, we have marketed lottery bonds on the theme "Do you like winning and hate losing". This marketing has attracted a lot of attention and we have been awarded two golden egg awards at the prestigious Guldäggsgalan (Golden Egg gala) in April, where we won the "Best film" and "Best integrated advertising" categories. We also were awarded an analysis prize in the "Guldnyckeln" (Golden Key) competition .

# Low interest rates led to an outflow for National Debt Savings

2010 has been marked by very low interest rates. After the Riksbank's cutting of the repo rate to 0.25 % in July 2009, we have offered 0.10 per cent in interest on accounts with floating interest during the first half of 2010. The increase of the repo rate enabled us to raise the interest rate to 1.0 per cent during the second half of the year.

The low interest rates led to a reduction of the volume of National Debt Savings by SEK 6 billion compared with the previous year.

The result for National Debt Savings deteriorated by SEK 24 million compared with 2009. After the Riksbank cut the reporate to 0.25 per cent, we were only able to take a margin of 0.15 per cent during the first half of the year compared with the normal 0.25 per cent on accounts with floating interest. This led to a loss of income of around SEK 15 million in 2010.

Interest rates were higher on fixed interest accounts and we were able to take a nominal margin of 0.35 percentage points throughout the period. However, as accounts with floating interest account for over 80 per cent of the outstanding volume, the floating interest rates have a great effect on both the extent and result of deposits.

At the end of 2010, there were SEK 28 billion of deposits in National Debt Savings with 130,000 customers.

### The Debt Office's share of the savings market

Lottery bonds and National Debt Savings accounted at the end of 2010 for a total of 4.7 per cent of the Swedish fixed income market, compared with 5.6 per cent in December 2009.

# 7 Market and debt commitments

### 7.1 Our strategy

The goal of central government debt is to minimise the longterm costs while taking risk 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.

At a strategic level, market commitment and debt maintenance is about establishing principles for operational activity. These principles concern, among other things, 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 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 requirement, 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 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 counterparts. Journeys to foreign investors in South America, the US, Europe, North Africa and the Middle East were made during 2010.

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 scarcity 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 our dealers for nominal and inflation-linked government bonds. A limited repo facility for T-bills.

- Exchanges between inflation-linked bonds at fixed prices.
- Special terms are offered for newly introduced nominal government bonds and T-bills to promote liquidity until the outstanding volume is sufficiently large to provide liquidity.
- Liquidity-neutral weekly repo swaps in all instruments at fixed prices for a limited volume.

During 2010, we made repo swaps corresponding to SEK 4 billion per day. During 2009, the corresponding figure was SEK 1.62 per bank day. Exchanges of inflation-linked bonds amounted to SEK 2.3 billion in 2010 which can be compared with SEK 3.5 billion in 2009.

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 2010, the standing repo facility in government bonds accounted for an average of SEK 24 billion per bank day. In 2009, this figure was SEK 18 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 points below the repo rate.

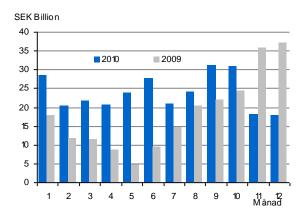
During periods of large portfolio movements, scarcity situations easily occur which makes it difficult for the participants to find the desired instrument in the market. These deficiency situations are made worse if investors do not offer their holdings on the repo market. If a security, for example, is sold by a participant that participates in the repo market but is bought by an investor who does not participate, this security disappears from the liquid part of the market. The Debt Office's market support repos maintain a functioning repo market and offer a last resort for investors to obtain desired instruments. This limits the risk for investors in trading with government securities, which is significant for a liquid market.

There are at the same time certain downsides if repo volumes are too large. If the standing repo facility leads to us having long-term surpluses, this will eventually affect our ability to issue government bonds. In the long term, we may only issue bonds to cover budget deficits and/or maturities. Through the repo undertaking, we risk distorting the market price by our own action. The market price is an important

signal concerning changes in supply and demand and functions in this way as an incentive to changes in our own strategy. To the extent that our repos reduce the impact on the market, there is a risk of delaying necessary adaptations.

Demand for repos vary 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 20. THE STANDING REPO FACILITY IN
GOVERNMENT BONDS, AVERAGE DAILY
VOLUME



Otherwise, the daily volume in repos is relatively low at present, which indicates that the bond market has now become more liquid than at the beginning of the financial turbulence. In addition, the offering of government securities in the repo market has increased, which, among other things, may be due to more expensive borrowing costs for banks and firms in maturities up to a week. At present, we do not consider it necessary to make any major changes in our market commitment. In the long run, we will, however, need to review the terms. This applies, in particular to the T-bill market where the repo volume is still limited.

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 our 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. There are few markets which have had such continuity as the Swedish. Even if the liquidity has at times been insufficient, neither the market for government bonds or mortgage bonds has been closed. This is more or less unique for Sweden.

The well-functioning repo market is a result of many factors: not least our dealers have for many years contributed to the infrastructure. The Debt Office's market commitment is also an important explanation.

# 7.3 The investors' view of the Debt Office

On behalf of the Debt Office, TNS Sifo Prospera made the seventh evaluation in 2010 of the Debt Office's borrowing. In the evaluation which was conducted during the period 17 November 2010 - 5 January 2011, 51 Swedish and foreign investors, 7 primary dealers and 11 other market makers of Swedish government bonds were interviewed. The response rate was 94 per cent, which may be considered as being very high.

The Debt Office has received a high rating since the start in 2004 and this was also the case in 2010, although it was slightly lower compared with the previous year's survey. It should be taken into account that the survey for 2008 - 2009 took place during exceptional circumstances in the market where the Debt Office participated actively in measures to support liquidity.

Confidence in the Debt Office's debt management remains very high in this year's survey. In an international comparison, the Debt Office is rated excellent. Swedish participants rate the Debt Office's conduct highly compared with Swedish mortgage institutions.

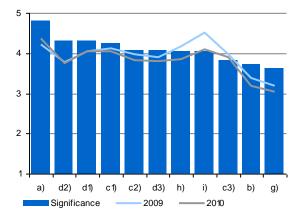
The difficulties are in contact with the Swedish investors.

A summary of the results of the survey is shown below.

- There is a high level of confidence in the Debt Office with respect to forecasting the central government borrowing requirement and funding and it was rated excellent for the whole sample. This is also the factor that is deemed most important for the whole sample.
- The Debt Office's information about borrowing requirements, funding, issue volumes and terms is still considered to be excellent.
- The Debt Office is highly rated in an international comparison and in relation to Swedish mortgage institutions with respect to professionalism.
- The sale of central government securities functions very well and receives a higher rating than the previous year from the Swedish dealers. Sales forms and information were rated excellent by practically all participants.
- The dealers are less satisfied with our market support measures compared with the previous year. This dissatisfaction seems to mostly concern the pricing of the exchanges we have offered of inflation-linked bonds.

- The introduction of the new inflation-linked bond receives a good rating on average from the dealers. However, the sounding of the market prior to issue was criticised by the Swedish investors. A number of them considered that we had primarily focused on the primary dealers.
- Swedish investors do not think that the Debt Office is sufficiently responsive to the market's wishes and wish for closer contract.
- The liquidity and pricing of the secondary market were consistently perceived as having improved compared with the previous year. The market for nominal government bonds is considered to function well. The secondary market for inflation-linked bonds and T-bills continues to receive a low rating, however. To improve the liquidity of inflation-linked bonds, the Debt Office started to introduce more maturities in 2010.
- The Debt Office's website is overall the most important source of information on the central government borrowing requirement and funding. It can, however, be made even easier to find one's way around it.

Figure 21. EVALUATION OF THE DEBT OFFICE BY SWEDISH INVESTORS 2010

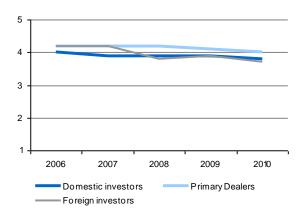


Explanation: The rating scale is from 1 to 5. Scores above 4 are interpreted as excellent or very important and scores below 3 as below average or unimportant.

Fewer investors than during the previous period took part in the primary market. Lower issue volumes may be an explanation of this. Criticism of insufficient responsiveness to the wishes of the market may likewise be a consequence of our not needing to borrow as much during 2010 as previously and therefore not being able to meet higher demand for government securities.

The result accords well with the impression the Debt Office has of the functioning of the market and our activities. Taken as a whole, the overall impression of our borrowing operations is somewhat lower than in the previous year but still very high.

Figure 22. 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 question. 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

### Communications and information

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

### Borrowing: Good sales forms for:

- c1 Nominal bonds
- c2 Inflation-linked bonds
- c3 T-bills

### Good information about volumes and other terms

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

# Clear/consistent conduct when reducing auction volumes

- e1 Nominal bonds
- e2 Inflation-linked bonds
- e3 T-bills

### General

h Responsiveness to the market's wishes

### Professional conduct

- i International comparison
- j Comparison with Swedish mortgage institutions

# 8 Goal fulfilment and results

It is not possible to evaluate exactly the goal of borrowing at the lowest possible long-term cost without taking too high risks. The decisions which are most important for costs and risk are made by the Government in the guidelines for central government debt management. There are no evident measures to evaluate the guideline decisions. Instead, the evaluation has to take a position on whether the decisions all in all appear to be reasonable and well balanced taking into consideration the goal and the information available when the decisions were made. The steering system for central government debt management is based on the Government reporting to the Riksdag every other year.

The Debt Office's proposed guidelines are based on our assessment of how the debt should be managed to achieve the goal. Since the system with annual guidelines was introduced in 1998, the Government has substantially complied with or proposals. The Riksdag has concluded that the Government's guidelines have been compatible with the goal. Since it is the Riksdag that has adopted and interprets 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.

We have reduced the planned borrowing apace with the strengthening of central government finances and the reduction of the borrowing requirement. To ensure borrowing at a low cost in the long run, it is important to maintain the infrastructure and liquidity of the government bond market. We have therefore given priority to borrowing in government bonds and reduced other borrowing.

The Debt Office considers that we achieved the goals of central government debt management in the appropriation directives and guidelines decisions. We would like in particular to draw attention to the following:

- The share of foreign currency debt has varied between 13 and 15 per cent during 2010, which is within the set interval. The cause of the share being in the lower portion of the interval is the strong appreciation of the krona during the year.
- The share of inflation-linked debt amounted to 26 per cent on average during the year. The inflation-linked debt is expected to decrease when the shortest inflation-linked bond matures at the beginning of 2012. The share is

thereby in line with the long-term target set by the Government.

- The interest rate refixing period for the nominal krona debt was on average 3.2 years during 2010 for maturities up to 12 years. The interest rate refixing period thus corresponded to the maturity target in the guidelines.
- The active management has been successful. The strategic position for the stronger krona was valued at SEK 7.8 billion at the end of 2010 including the portion realised during the year. Viewed over the evaluation period 2006 – 2010, the result of the active management has been SEK 157 million per year on average excluding strategic positions.
- The cost saving from retail market borrowing has been SEK 176 million per year on average during 2006-2010.
   Retail market borrowing produced a surplus of SEK 183 million for 2010.

In addition to these measurable results, we have contributed to the good functioning of the government security market by well-balanced market and debt commitment. This assessment is supported by the result of this year's survey. A good government security market entails lower costs for the state and decreases the risk through access to well-functioning markets if the borrowing requirement were to increase unexpectedly.

