

Swedish National Debt Office

Reference basis for evaluation of central government debt management 2007

Contents

- 1. Objectives of central government debt management
- Costs of central government debt Average running yields for our most important loan instruments
- 3. Strategic decisions
 - 3.1 Debt maturity profile
 - 3.2 Foreign currency amortisation
 - 3.3 Breakdown of foreign currency debt

Pábla

fom ar atoir fon

5

6

8

8

15

19

20

22

22

- 3.4 Deviations from benchmarks
- 3.5 Active management

4. Borrowing

- 4.1 Nominal borrowing in Swedish currency
- 4.2 Inflation-linked borrowing
- 4.3 Foreign currency borrowing
- Active foreign currency management
 5.1 Active management performance in 2007
 5.2 Performance and evaluation 2003–2007
- 6. Retail borrowing

ms

- 7. Market support and debt maintenance
 - 7.1 Our strategy
 - 7.2 Market commitments
 - 7.3 Investors' perception of the Debt Office

1. Objectives of central government debt management

The Debt Office is responsible for managing existing central government debt and raising new loans for the state by issuing government securities, primarily purchased by funds, insurance companies and financial institutions. A small part of central government debt is financed by savings products targeting private individuals and other small investors. The Debt Office participates in both the Swedish and overseas fixed income markets. In addition to financing central government debt, the Debt Office is also tasked with active foreign currency management.

The overall objective of central government debt management is to minimise the long-term cost of government debt without excessive risk-taking. Apart from this, management must comply with monetary policy requirements. The Debt Office is also to contribute to improving the functioning of the government securities market. The better the market functions, the more investors are prepared to pay for the securities we sell and the lower the state's borrowing costs. Consequently, market support and debt maintenance form part of the Debt Office mandate.

Central government debt management conforms with guidelines determined annually by the Government, based on proposals from the Debt Office. The guidelines specify benchmarks for the composition and maturity of the central government debt.

The main part of the central government debt consists of nominal Swedish currency loans; the remainder consists of inflation-linked Swedish currency debt and foreign currency debt. Diversifying the government debt portfolio is one way of reducing risk.

Central government debt maturity is specified in terms of an average fixed rate period. The benchmark for the maturity of the debt functions as a borrowing restriction. Since the yield curve in general has a positive slope, it is more expensive to borrow at long maturities. At the same time, short-term borrowing involves greater risk, since a large proportion of the debt must be reborrowed on terms that are not known in advance. By spreading maturities we reduce the risk of a rapid increase in interest expense resulting from increasing market rates. The benchmark stipulated by the Government for the average fixed rate period is therefore based on a trade off between cost and risk. The guidelines for 2007 state that:

- The benchmark for comprehensive maturity of central government debt is to be 4.7 years at the end of 2007.
- The foreign currency debt is to decrease to a longterm target of 15 per cent of central government debt.
 Amortisation of the foreign currency debt is to be SEK 40 billion, ± SEK 15 billion, during the year.
- The percentage of inflation-linked Swedish currency debt is to be 25 per cent of central government debt. The Debt Office is to establish a deviation interval around the percentage of inflation-linked debt.
- In addition to inflation-linked Swedish currency borrowing and borrowing in foreign currency, state borrowing requirements are to be covered by nominal loans in Swedish kronor.
- The Debt Office may take active positions in derivative instruments. The limitation on active position-taking is to be set at SEK 600 million, measured as daily Valueat-Risk at 95 per cent probability. The risk limitation covers all positions except those that relate to the krona's exchange rate against other currencies. The risk mandate covers both strategic and operational levels.

The guidelines also state that we must borrow directly from private individuals and other small investors, for example through lottery bonds. The objective is to achieve the greatest possible saving compared with loans via ordinary government securities to further reduce the cost of the central government debt.

Within the framework of the Government guidelines, the Debt Office makes various strategic decisions relating to management and borrowing. These include how to achieve the aggregate fixed rate period for the debt, how great the intervals should be around the benchmarks set, and the selection and internal distribution of currencies in the foreign currency debt. The Board of the Debt Office is also able to make decisions concerning interest rate and foreign currency positions, although the latter is unusual.

Chapter 2 gives an account of the costs associated with central government debt in 2007. Chapter 3 summarises the strategic decisions we took in 2007 and is followed by a review of the operational management in chapters 4–6. A description is also given here of our borrowing operations, active foreign currency management and retail borrowing in 2007. Chapter 7 then examines our market support efforts to improve the functioning of the government securities market. Finally, a summary assessment of performance and achievement of objectives is provided.

2. Costs of central government debt

Interest payments on the central government debt fell to SEK 47.1 billion in 2007. This is SEK 2 billion lower than the previous year and is mainly due to a fall in exchange losses from SEK 6 to SEK 2 billion.

At the same time, this was a smaller change than we had anticipated; we expected that the loss would fall from SEK 6 billion to 0, which is why interest expenses were higher than the original appropriation (SEK 43.0 billion).

The size of exchange gains/losses depends on when the loans mature and how the exchange rates have moved since the loans were raised. Gains and losses are also affected by forward exchange contracts that we use to achieve the foreign exchange exposure we set for each currency.

The long-term interest rates remained at about the same level as the previous year. The reason current interest payments did not fall at the same rate as the central government debt is that short-term market interest rates rose in 2007. This was a result of the Riksbank and the ECB raising their policy rates. Moreover, bank rates were raised during the credit turbulence, which affected us via higher floating rates in our swaps, for example.

Short-term interest rates have a more immediate impact on interest payments than do long-term interest rates. This is because we hold a large number of instruments with short fixed rate periods. The Swedish currency debt includes a large quantity of Treasury bills (T-bills) and floating interest payments through interest rate swaps. We have a total fixed rate period of less than 2 months in the foreign currency debt.

Average running yields for our most important loan instruments

The average running yields for our largest loan instruments in Swedish kronor are shown in Table 2.1. Altogether, the outstanding volume of these instruments was SEK 907 billion. Total central government debt was SEK 1 168 billion.

Nominal bonds

The average running yield for the total stock of nominal bonds was 4.48 per cent at the end of 2007. This is a decrease of 0.14 percentage points compared with 2006 and is due to maturing bonds with interest rates considerably higher than average for the total stock.

The average running yield for bonds sold during the year was 4.13 per cent, which is 0.50 percentage points higher than the previous year.

Treasury bills (T-bills)

The average running yield for T-bills continued to rise during the year. The increase was 0.96 percentage points for the stock and 1.07 percentage points for T-bills sold. As T-bills have short maturities, the impact of market rate fluctuations on outstanding stock is soon felt.

Inflation-linked bonds

The average running yield for the stock fell by 0.12 percentage points in 2007. This is because older bonds with high interest rates have disappeared from the stock.

At the same time the average running yield for bonds sold during the year increased by 0.30 percentage points, compared with 2006.

Average running yield for the entire central government debt

The average running yield for the entire central government debt was 4.0 per cent at the end of 2007. This includes, apart from the instruments mentioned above, loans in foreign currency, loans to private individuals and an extensive derivatives portfolio consisting of swaps. At the end of 2006, the average running yield was 3.7 per cent. The increase in 2007 is due to higher market rates for instruments with short maturities, which

Table 2.1 AVERAGE RUNNING YIELDS ¹

	Nominal bonds		T-bills 4 Inflation-linked bonds 5			
	2006	2007	2006	2007	2006	2007
Total debt ² (SEK billion)	550	511	255	180	215	216
Borrowing ³ (SEK billion)	84	61	420	318	20	17
Average running yields, total debt (%)	4.62	4.48	2.93	3.89	3.06	2.94
Average running yields, borrowing (%)	3.63	4.13	2.53	3.60	1.55	1.85

¹ To compare the average running yield for nominal and inflation-linked instruments respectively, the average running yield for inflation-linked bonds must be adjusted for inflation.
 ² Loans taken over are not included.
 ³ Volume issued in auctions and sold component in exchange transactions.
 ⁴ Including liquidity bills.
 ⁵ The volume of inflation-linked bonds includes accrued inflation.

3. Strategic decisions

3.1 Debt maturity profile

In the 2007 Guidelines, the Government decided that the maturity benchmark is to cover the entire central government debt, which includes the inflation-linked Swedish currency debt. The new benchmark, to be reached at the end of 2007, was set at 4.7 years. This is a shorter maturity than in 2006.

It was decided to shorten maturity because of the increased scope for risk in the debt management. Expectations of continuing strong central government finances mean that the central government debt as a share of GDP is forecast to fall over the next few years. This in turn will lead to a fall in the total risk in the central government debt. Moreover, the composition of the central government debt is approaching the target shares, which means a better balance from the point of view of risk, and hence lower risk in the debt.

The Debt Office decides how we are to achieve the maturity benchmark. As in previous years, we decided to vary the maturity profile of the different types of debt. Foreign currency debt maturity was cut from 2.1 to 0.125 years. In that way, the new maturity target could be achieved without any appreciable increase in risk level.

The benchmark was set to 3.5 years for the nominal debt in Swedish kronor, which is unchanged from last year. By allowing the nominal debt in Swedish kronor to have a longer maturity than the foreign currency



Figure 3.1 MATURITY PROFILE, AGGREGATE CENTRAL GOVERNMENT DEBT 31 DECEMBER 2007

debt, a more liquid market for bonds with long maturities can be maintained.

In addition, we decided that the maturity of inflationlinked debt is to fall at the same rate at which outstanding loans approach maturity.





3.2 Foreign currency amortisation

In the 2007 Guidelines, the Government decided that the foreign currency debt will be amortised by SEK 40 \pm 15 billion. During the year the Swedish krona moved in an interval that the Debt Office deemed to be reasonable, from a medium-term perspective. We therefore saw no strategic reason to deviate from the target set. Altogether, we amortised SEK 42 billion in 2007, which



Figure 3.3 KRONA EXCHANGE RATE AND DEVIATION FROM BENCHMARK FOR FOREIGN CURRENCY DEBT AMORTISATION



is SEK 2 billion more than the benchmark. The difference is partly due to exchange rate fluctuations, which prevent the Debt Office from being able to determine the amortisation amount exactly (in SEK). At the end of the year, the foreign currency debt share had fallen to 17.6 per cent.*

In TCW terms, the krona was about 128 and just over SEK 9.43 to the euro when it was at its weakest.

3.3 Breakdown of foreign currency debt

The foreign currency debt is made up of several currencies. The Government does not take a position on the actual distribution of currencies, but delegates the decision to the Debt Office. At a review every third year, the Board of the Debt Office sets a benchmark for currency distribution. The last review was in 2005 and concerned the foreign currency benchmark for the period 2006–2008.

The purpose of the review was to find a currency distribution with the desired risk and cost features. Even if the overall objective of the Debt Office is to minimise



cost while taking risk into account, traditionally we have aimed for a foreign currency debt that contributes to keeping risk low in the total debt. This is because for a long time we had a very large foreign currency debt and therefore relatively high risk exposure to exchange rate fluctuations.

The cost aspects have, however, become more important and in recent years there have been departures from the risk-minimising distribution¹ aimed at reducing the costs of foreign currency debt. The single most important departure in the last review was that we increased the share of Swiss francs, reducing the euro share.

As the benchmark portfolio is selected for a three-year period, the final evaluation of the selected portfolio must wait until 2008, when a new benchmark will be selected. To date (2006 and 2007), departures from the risk-minimising distribution have contributed to a cost reduction of about SEK 1.6 billion. However, it should be pointed out that these departures have entailed large fluctuations in the cost of foreign currency debt.

3.4 Deviations from benchmarks

The Government has set the benchmarks for the internal distribution of the debt but the Board of the Debt Office may deviate from this distribution if it deems it necessary from the point of view of cost and risk. Deviations are allowed within certain set intervals.

In 2007 we saw that the share of inflation-linked debt had periodically exceeded its benchmark (see Figure 3.6). This was due to a considerable fall in the central government borrowing requirement during the year. Since inflation-linked debt has not fallen at the same rate as other types of debt, its share of the total central government debt has increased. At the end of the year, the share was 26.4 per cent.*

It is difficult to control the share of inflation-linked debt other than very approximately. This is because the

* 30-day moving average.

¹ Risk-minimising distribution with the restriction that the benchmark may only consist of the four most liquid currencies (USD, EUR, JPY and GBP) plus Swiss francs and Australian dollars (AUD). There is also a maximum restriction on the share of AUD of 6 per cent in the optimisation.



Figure 3.6 INFLATION-LINKED BOND STOCK AS PER-CENTAGE OF CENTRAL GOVERNMENT DEBT

30-day moving average.

inflation-linked market is thin and neither short-term inflation linked loans nor a sufficiently developed inflation-linked derivatives market exist.

Larger adjustments to quickly bring down the share to the desired level would probably be both expensive and go against our aspiration to act transparently and predictably. We have therefore accepted relatively large fluctuations in the share.

One concrete measure we took in 2007 was to reduce the issue volume of inflation-linked bonds. We also held discussions with our primary dealers concerning various options for keeping the share of inflation-linked debt close to the benchmark; see also Chapter 4.

3.5 Active management

In 2007 the Debt Office had the right to take interest rate and currency positions in foreign currency using derivative instruments. The extent of the position-taking is restricted in that the Government stipulates a maximum risk level of SEK 600 million, measured in terms of daily Value-at-Risk. The risk limitation covers all positions except those that relate to the krona's exchange rate against other currencies. The Board of the Debt Office decided to allocate SEK 220 million of the SEK 600 million to the day-to-day active management.

Positions must be taken when we consider the market is deviating from a long-term normal situation. If our assessment proves to be correct, we can then reduce the costs of the central government debt. The Debt Office therefore follows ongoing developments in the fixed rate and foreign exchange markets.

We did not regard it as the right time to take any strategic positions in 2007. The international upturn in interest rates in the first six months never appeared to be excessive and the American mortgage crisis, which hit hard in the summer, was felt to be so difficult to assess that we also refrained from strategic interest rate positions in the autumn.

Nor did we consider it justified to take a strategic position on the currency side. However, the EUR/USD trend has brought us closer to a situation where a strategic position (we buy USD and sell EUR) may be motivated.

As of 2007, we are not allowed to take positions in the Swedish fixed income market. This is due to our dominant position in the Swedish market and the requirement for transparency and a long-term perspective.

Fixed income and foreign exchange markets in 2007

The year began with rising international bond rates, primarily as a result of strong financial figures and positive growth prospects in both the US and Europe.

In Sweden the strong economic outlook and expectations of tighter monetary policy contributed to a strengthening of the krona at the beginning of the year.

In February the Riksbank announced that it did not intend to raise the policy rate faster than previously signalled. This led to a weakening of the krona and a fall in Swedish interest rates.

During the spring, attention turned increasingly to the US housing market, and in particular to sub-prime loans, i.e. loans made to US borrowers with a weak repayment capacity. This resulted in a fall in bond yields across the board. However, anxiety quickly subsided as most indications were that exposure to these loans was fairly limited.

Bond yields started to rise again in March/April as a result of positive growth prospects in both Europe and the US.

In Sweden the Riksbank made a further announcement that the interest rate would not be raised at the pace anticipated by the markets, which weakened the krona. In addition, GDP growth for the first quarter was weaker than expected, which also contributed to a weaker krona.

In the summer the financial markets were again turbulent after credit losses linked to the US housing market started to be felt. This was followed by falling bond yields and a weaker US dollar.

Tighter credit conditions and continued problems in the US housing market caused the Federal Reserve to cut the federal funds rate by 0.5 percentage points to 4.75 per cent in September. The cut was larger than expected, indicating that the Fed was concerned about the economic outlook in the US. The Fed's action was a welcome injection for the financial markets, boosting the appetite for risk once again. Stock markets rose in both the US and Europe and bond markets stabilised. On the foreign exchange market, the dollar continued to weaken against most currencies.

Towards the end of the year, uncertainty grew as to how large total credit losses really were. In addition there was a greater risk that tighter credit conditions, a high oil price and an ever-weakening housing market would lead to lower US growth than had been forecast. This led to falling bond yields and a subdued stock market in the last months of the year.

The Swedish economy continued its strong performance in the autumn. Employment rose in all sectors and difficulties in matching labour supply and demand increased. This caused long-term interest rates to rise in the autumn.

However, downward pressure on short-term rates continued as a consequence of the international credit crisis. At the same time, interbank rates rose sharply since it had become increasingly difficult to raise cash.

In connection with the second monetary policy report of the year, the Riksbank revised its forecast of future interest rate movements considerably. This led to a substantial strengthening of the krona and an upturn in interest rates. GDP growth in the second quarter was also very strong.

The krona continued to strengthen against both the euro and the dollar in early autumn. One reason was that the difference in short-term interest rates decreased between Sweden and the eurozone and krona trading focused largely on Sweden's strong real economy. In October, the krona strengthened to about 123 in TCW terms and to about 9.1 against the euro.

Towards the end of the year, the krona weakened against the euro, but continued to be strong against the US dollar.

4. Borrowing

Central government borrowing mainly takes place through the Debt Office issuing nominal government bonds and T-bills. Some borrowing is covered through inflation-linked bonds, which provide inflation protection to investors. The Debt Office also borrows in foreign currencies and from private individuals and other small investors.

The factors that have primarily affected our borrowing in 2007 are continued central government budget surpluses, the international credit crunch and the privatisation process of state-owned companies.

The strong central government finances caused us to cut down on borrowing in all types of debt in 2007. At the same time the international credit crunch led to a large number of people taking the opportunity to enter into market support repos with us. A market support repo means that a primary dealer can buy a government security from us with an agreement to sell it back a certain number of days later. This applies regardless of our own borrowing requirement. In September and October we entered into repo transactions for about SEK 50 billion a day. Normally the level is between SEK 0 and SEK 10 billion a day. Combined with a low borrowing requirement, this meant that we had large surpluses to invest.

The Government's decision to sell shares in stateowned companies in 2007 was another factor that affected our borrowing plan. The Debt Office acted on the

Table 4.1 FUNDING IN GOVERNMENT SECURITIES

basis of the Government's forecast of revenues equivalent to SEK 50 billion and adapted borrowing in nominal government bonds to that. When it was clear towards the end of the year that the privatisation income would only be SEK 18 billion, we were forced to increase our borrowing. The first step was to adapt the borrowing requirement within the framework of liquidity management. The next step was to increase borrowing in T-bills. This meant that T-bill borrowing was not reduced as much as we had expected and that the maturity of the nominal debt was somewhat shorter than expected.

4.1 Nominal borrowing in Swedish kronor

Nominal government bonds

Most borrowing was in nominal government bonds. A total of SEK 41 billion was issued in 2007, compared with SEK 64 billion in 2006.

Nominal government bonds are issued in auctions that take place every other week. At the beginning of the year, SEK 2 billion was issued on every issue date. From June onwards the issue volume was reduced to SEK 1.5 billion due to the reduced borrowing requirement. We also decided to cancel one auction in August.

On 21 November a new ten-year Treasury bond loan (1052) was introduced, maturing on 12 March 2019.

	2003	2004	2005	2006	2007
Net borrowing requirement ¹	47	51	-14	-18	-103
Change in cash balance and retail market ²	15	-10	29	-39	-36
Maturities, buybacks etc.	43	43	56	71	79
Government bonds	12	21	16	36	62
Foreign currency loans	30	22	40	35	17
Total	102	84	66	13	-59
T-bill borrowing, net ³	-31	-35	-27	-78	-110
Bond borrowing, gross	134	119	93	91	51
Bonds in foreign currency	11	10	25	20	5
Inflation-linked bonds ⁴	18	18	12	7	5
Nominal government bonds ⁵	105	91	56	64	41
Funding 102	84	66	13	-59	
¹ A negative net borrowing requirement means the ² Not abage in liquidity management instruments	at the central govern	nment budget is	in surplus		
³ Not of issues (evoluting exchanges) and maturit	and retail market it	ans adar voar			
⁴ Issue volume per auction average	1 1	0 9 N 9	0.6	04	0.5
	1.1	0.0	0.0	0.7	0.0

Issue volume per auction, average	1.1	0.9	0.6	0.4	0.5
⁵ Issue volume per auction, average	4.6	4.0	2.4	2.8	1.9



Figure 4.1 OFFERED AUCTION VOLUMES OF NOMINAL GOVERNMENT BONDS

The introduction was timed for late in the year to lengthen the period to the previous ten-year loan. When the borrowing requirement is low, it takes longer to build up the stock of a benchmark loan. By introducing new loans every eighteen months instead of every twelve, loans are larger and more liquid.

The loan was introduced with an initial issue of SEK 1.5 billion. To quickly build up new loan volume we made exchanges for previously issued loans. The exchanges were made with loan 1045 (March 2011), loan 1050 (July 2016) and loan 1051 (August 2017). The exchanges worked well and we issued the planned volume.

Otherwise, borrowing in bonds was carried out in the two-year, five-year, ten-year and fourteen-year segments. Just over half of the issues were in the ten-year segment. Borrowing was concentrated on the new loan to give it sufficient liquidity. A few issues were made in the two-year and fourteen-year segment. The remaining issues were in the five-year bond.

In 2007 government bonds for SEK 62 billion matured. As in previous years, the Debt Office offered exchanges of government bonds with less than one year to maturity. In 2007 this exchange referred to loan 1040 (6.5 per cent, May 2008). Exchanges totalling SEK 24.6 billion were made in 2007 to offer investors the opportunity of obtaining T-bills with better liquidity.

Table 4.3 MEAN AVERAGE FOR COVER RATIO AND RUNNING YIELD FOR NOMINAL GOVERN-MENT BONDS 2003–2007

Per cent	2003	2004	2005	2006	2007
Cover ratio ¹	3.16	3.17	3.69	3.87	3.28
Average yield ²	4.25	4.10	3.04	3.60	4.07

¹ Volume of bids received in relation to offered issue volume.
 ² Only outright auctions, i.e. exchange auctions are not included.

Table 4.3 shows that the average running yield was 4.07 per cent in 2007. The running yield was about 0.5 percentage points higher than in 2006, which reflects the fact that bond yields have risen in the past year.

The bond issues had an average cover ratio of 3.28 in 2007, which is lower than in 2006. The cover ratio shows the relation between the total bid volume in an auction and our offered issue volume.

Short-term borrowing

T-bills

Funding in T-bills fell by SEK 32 billion compared with 2006. This is mainly explained by the strong central government finances and the fact that we decided to prioritise liquidity in government bonds.

The percentage of investors who took part in the primary market continued to fall during the year; see section 7.3. This may indicate that investors regard the secondary market as sufficiently large to carry out the desired transactions.

Table 4.4 CHANGE IN OUTSTANDING T-BILLS, NET INCLUDING SWAPS

SEK billion	2003	2004	2005	2006	2007
Net funding with T-bills ¹	-31	-35	-27	-78	-110
Exchanges of govern- ment bonds to T-bills	51	50	56	44	27
Change in T-bill stock	20	15	29	-34	-84
Net interest rate swaps ²	10	30	41	9	14
Net T-bill stock including swaps	30	45	70	-25	-70

¹ Net of issues (excluding exchanges) and maturities during the calendar year.

² Net of swaps entered into and matured.

Table 4.2 VOLUME ISSUED IN SEK MILLIONS AND AVERAGE RUNNING YIELD PER LOAN

Loan	Maturity date	Coupon, %	Maturity, years	Number of auctions	Volume issued, SEK million	Average running yield, %
1043	28/1/2009	5.00	2	1	1 998	3.91
1048	1/12/2009	4.00	2	1	1 500	4.08
1046	8/10/2012	5.50	5	5	10 499	4.10
1051	12/8/2017	3.75	10	11	20 494	4.07
1052	12/3/2019	4.25	12	2	2 999	4.19
1047	1/12/2020	5.00	13	2	3 500	3.94

The average running yield in the auctions was 3.6 per cent, which is higher than in 2006.

The credit crisis that was triggered during the summer contributed to pushing down interest rates on government securities. The interest on bills was significantly lower than market expectations of the Riksbank's policy rate. Paradoxically, although we were repoing out large volumes of T-bills, demand was relatively limited on the emission dates. This is a sign that the market was not functioning particularly well. The market rate was forced down as a result of supply shortage, while the interest rate was believed to be too low to create demand for the issues.

To issue sufficient volumes of T-bills in the autumn we accepted bids from time to time with a somewhat higher interest rate than the indicative market rates. Despite this, the borrowing costs were still low compared with the costs of cash management instruments, since the interest on bills was so depressed.

Figure 4.2 TREND IN T-BILL STOCK



Three of the year's 36 auctions were not fully subscribed. We cut the volumes in these auctions, which means that SEK 7 billion, or 2.4 per cent of the T-bills offered, were not sold. However, this did not cause any funding problems, since T-bill borrowing in the short term was replaced by borrowing in liquidity management and compensatory increases in T-bill borrowing then gradually followed.

T-bill borrowing was unevenly spread over the year. In the months of cash surplus, i.e. late spring until mid-November, we only issued enough to satisfy our commitments regarding outstanding maturities. In December, however, we had a very large borrowing requirement. In the light of the market situation at the time, our assessment was that this could not be covered only by T-bill borrowing. We therefore decided to raise the equivalent of about SEK 20 billion in commercial paper on the dollar market; see section 3.3 below. The loans were hedged against kronor so that in practice they replaced T-bill borrowing.

Table 4.5	MEAN AVERAGE FOR COVER RATIO AND
	RUNNING YIELD FOR T-BILLS 2003-2007

Per cent	2003	2004	2005	2006	2007
Cover ratio ¹	2.29	2.18	2.51	2.04	2.13
Average yield, % ²	3.04	2.24	1.80	2.52	2.40

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

² Only outright auctions, i.e. exchange auctions are not included.

Interest rate swaps

In 2007 we swapped SEK 19 billion of borrowing in bonds to short-term Swedish interest rate exposure and SEK 11 billion to short-term foreign currency interest rate exposure.

When we borrow via the swap market, we first issue a nominal government bond. At the next stage we exchange the fixed bond rate for a floating bank rate (STIBOR). Using this method we can utilise the Debt Office's relative strength as a borrower in the long-term debt market. The state's high creditworthiness means that relative to other borrowers we can borrow on very favourable terms. Thus the interest rate we receive for swaps is higher than the fixed rate we pay when borrowing in bonds (the swap spread).

Interest rate swaps are also used to attain our maturity target. By converting long-term borrowing to shortterm we can shorten maturities in nominal krona debt, while being able to maintain good liquidity in long-term bonds.

The alternative to short-term interest rate exposure via the swap market is to borrow in T-bills. The gain or loss on using swaps will therefore depend on the swap spread in relation to the average difference between STIBOR and the corresponding real T-bill yield (the TED spread). Where the swap spread was higher at the time of the contract than the average TED spread during the swap's duration, it will have been more advantageous to swap long-term for short-term borrowing than to borrow directly in T-bills.

Liquidity in the swap market continued to be good in 2007 and a number of additional players entered the market. The average maturity of the swaps was the same as borrowing in bonds. Swaps were relatively evenly distributed over the year. The total gain from swaps decreased due to the high STIBOR rates. This is true both of swaps entered into in 2007 and for earlier swaps, for which we are still paying the STIBOR rate. The swap spread (5 years) was on average 39 basis points in the first half of the year. Rising interbank rates in the autumn led to a rise in the swap spread to 53 basis points in the second half of the year. The TED spread in the same periods was 20 and 56 points respectively. The cost saving since 2003, when we started using interest rate swaps in the Swedish currency borrowing, was 2 basis points until year-end, which is equivalent to SEK 65 million. In 2006 the saving was SEK 118 million.

Figure 4.3 DIFFERENCE BETWEEN SWAP RATE AND BOND RATE (SWAP SPREAD) 2007



Figure 4.4 DIFFERENCE BETWEEN STIBOR AND 3-MONTH T-BILLS (TED SPREAD) 2007





Nominal Swedish currency borrowing performance

The Debt Office only makes a qualitative evaluation of borrowing in the nominal instruments. Our assessment is that the auctions functioned well, even though not all T-bill auctions were fully subscribed. This is confirmed by questionnaire surveys targeting primary dealers and investors. The interest rate we achieved at the auctions mainly lay between the rates corresponding to the market buying and selling rates. In addition we succeeded in keeping the nominal krona debt relatively close to the maturity target and well within the deviation interval.

Figure 4.5 MATURITY TREND



Liquidity management

The Debt Office manages the state's short-term funding and investment requirements. Liquidity over one month as a rule follows a pattern of surplus liquidity for a few days mid-month coinciding with incoming tax payments. (See Figure 4.6; negative figures mean that the state has a surplus in its payments).

The Debt Office normally has a funding requirement for about 75 per cent of the year's business days.² On other days we have an investment requirement.

Figure 4.6 LIQUIDITY MANAGEMENT, FUNDING IN



The instruments used are bank loans and bank deposits, repos, on tap sales and buybacks of T-bills and liquidity bills (T-bills with customised maturities). We carry out transactions in both kronor and foreign currencies. Liquidity management in 2007 was marked by large surpluses in central government finances, the sale of TeliaSonera shares at the end of the spring, uncertainty about continued privatisation revenues and the international credit crunch.

² On some days we may have an investment requirement despite a deficit in the state's payments. This applies on days when there is an unexpected inflow of money via market support repos. At the end of the spring, which is normally a period of surplus, TeliaSonera shares were sold for SEK 18 billion. This meant that we had to invest large surpluses, at times as large as SEK 80–100 billion. In autumn, when credit market unrest was at its highest, our counterparties used the opportunity to repurchase government securities from us; see also Chapter 7.

At the peak of demand we entered into repos of SEK 50 billion per day, which can be compared to normal market conditions, when we enter into repos for about SEK 0–10 billion per day. A large part of the repos were made in a period of relatively small borrowing requirements. This resulted in large surpluses which we had to invest. However, we could not invest everything in the deposit market due to our credit limits. We therefore decided to invest some of the surplus in the form of reverse repos in mortgage bonds. This reduced our credit risk, since mortgage bonds constitute collateral for the investment we make in the repo. The investments of the surplus were relatively evenly distributed over the year between deposits and reverse repos.

Liquidity management consisted of about 7 000 trans-

actions altogether during the year and turnover was just over SEK 10 billion. This was considerably more than in 2006 and is due to the strong demand for market support repos.

The balance of liquidity management fluctuated substantially over the year, from surpluses of about SEK 110 billion to deficits of about SEK 60 billion. As a first step, the deficits are funded through on-tap sales of T-bills (short-term bills previously issued at auctions). Within the framework of liquidity management, T-bills for SEK 40 billion have been sold, as compared to SEK 135 billion in the previous year. This reflects the smaller borrowing requirement in 2007, which affected both issue volumes in bills and on-tap sales in the context of liquidity management.

Flows in foreign currency

Liquidity management is normally in Swedish kronor. This means that short-term holdings of foreign currencies are exchanged to Swedish kronor and then managed in the krona market. For payments in foreign currency, the Debt Office borrows in kronor and then converts to the correct payment currency.

		2005	2	2006		2007	
Funding	SEK billion	Per cent	SEK billion	Per cent	SEK billion	Per cent	
T-bills	6.1	31.7	6.6	26.0	1.0	3.9	
Liquidity bills	1.3	6.7	2.1	8.5	0.4	1.8	
Repos	5.7	29.6	7.2	28.6	5.2	21.2	
Repo commitment	2.8	14.8	5.1	20.2	15.5	62.7	
Deposits	3.3	17.2	4.2	16.7	2.6	10.5	
Total funding	19.1	100.0	25.3	100.0	24.7	100.0	
Investments							
Buybacks of T-bills	-1.0	8.6	-1.5	10.4	-0.4	1.1	
Reverse repos	-2.8	24.1	-2.9	20.0	-16.4	47.8	
Deposits	-7.8	67.3	-10.0	69.6	-17.5	51.1	
Total investments	-11.6	100.0	-14.4	100.0	-34.3	100.0	

Table 4.6 LIQUIDITY MANAGEMENT, AVERAGE STOCKS PER DAY

Table 4.7 LIQUIDITY MANAGEMENT, TURNOVER

	2005		20	006	2	2007	
	Per day	Total	Per day	Total	Per day	Total	
T-bills, on-tap sales, loans	0.5	116	0.3	71	0.1	23	
Liquidity bills, loans	0.2	41	0.3	64	0.1	18	
T-bills	0.6	157	0.5	135	0.2	41	
Buybacks of T-bills, investment	0.3	75	0.3	78	0.2	43	
Repos, Ioans	3.0	757	7.0	1 756	4.8	1 204	
Repo commitment, loans	2.8	710	5.1	1 278	15.6	3 905	
Reverse repos, investment	1.4	348	2.1	527	8.2	2 057	
Repos, gross	7.2	1 814	14.2	3 562	28.7	7 167	
Deposits, loans	3.3	827	4.0	1 004	2.4	608	
Deposits, investments	6.8	1 716	6.8	1 705	11.7	2 920	
Deposits	10.1	2 543	10.8	2 709	14.1	3 528	
Total	18.2	4 589	25.8	6 483	43.1	10 779	

We deviate from this policy on certain occasions, for example when there is a very large borrowing or investment requirement. To avoid too great a dependency on, and hence exposure to, the krona market, we borrow or invest in foreign currency.

In December, when the borrowing requirements were very high, about SEK 100 billion, we decided to borrow SEK 12 billion in the commercial paper market (see section 4.3). These loans were hedged with futures so that we avoided exchange rate exposure. The alternatives would have been deposit borrowing or issuing T-bills.

Borrowing such a large amount with a short maturity in the deposit market would have entailed great refinancing risks. Deposit funding with a long fixed rate period, on the other hand, would have been a very expensive alternative. Nor was borrowing in T-bills deemed to be a realistic alternative, since we had already planned to issue large volumes of bills.

To meet the Government's requirement for an evenly distributed pace of exchange, we use both the spot and the futures markets. When there is a large volume of maturities in foreign currency, we buy currency forward before the final payment. The net of the flows is thereby evenly distributed over twelve months.³

In daily management, the Debt Office tries to utilise times of good liquidity to reduce costs. In the past year the Debt Office remained within the cost-neutral path defined by the Board.

Liquidity management performance

Liquidity management performance was SEK 59.5 million in 2007, to be compared with SEK 19 million in 2006. The improvement is due to the strong demand for market support repos, where we charge an extra premium⁴. Compared with bank deposits, repos reduced borrowing costs by SEK 45 million. The performance of reverse repos was equivalent to SEK 7 million compared with only a marginal profit in the previous year. The remaining profits were mainly from repo swaps in the framework of our market commitments.

³ To achieve an even distribution of net exchanges, a calculation is made every month of the year's remaining net exchanges. The forecast is distributed evenly over the remaining months of the year and constitutes the Debt Office benchmark. The Board has decided on a deviation mandate of SEK ±500 million. The benchmark, including the deviation mandate, defines a cost-neutral path for net exchanges. Transactions within the interval are regarded as performance neutral, which means that the Debt Office does not take any active positions in krona exchange transactions.

⁴ We lend at a lower rate than our comparison rate (the Riksbank repo rate). The theoretical additional cost of borrowing in the commercial paper market compared with rolling over shortterm deposits was about SEK 3.5 million.

Foreign exchange did not generate any earnings since also in 2007 we refrained from taking positions when exchanging currency.

4.2 Inflation-linked borrowing

During the year the Debt Office issued SEK 5 billion in inflation-linked bonds. The outstanding inflationlinked debt fell from SEK 217.3 billion to SEK 216.8 billion. Despite the fact that outstanding inflation-linked debt decreased, measured as non-consolidated debt, inflation-linked debt increased as a share of the total debt. This is partly due to the fact that the total central government debt decreased, and partly to the fact that we now take all future coupon payments and future expected inflation into consideration when calculating the shares. At the end of the year, the share of inflationlinked debt was 26.4 per cent, i.e. slightly higher than the benchmark determined by the Government (25 per cent).

At the beginning of the year we planned to issue between five and ten billion kronor in inflation-linked bonds during the year. In June the forecast was reduced to five billion to adjust to the reduced borrowing requirement and to the difficulties we began experiencing in keeping the inflation-linked share at the right level.

The Debt Office continued to exchange inflation-linked loans 3101 and 3001 during 2007. The market interest in participating in the exchanges was weak and several auctions were not fully subscribed. In the four first auctions in 3101 we therefore decided to cut down the allocated exchange volume by a total of SEK 656 million.

In 2007 we issued inflation-linked bonds at an average yield of 1.87 per cent. This is somewhat higher than in 2006, when the corresponding yield was 1.62 per cent.

Table 4.8 CHANGE IN INFLATION-LINKED DEBT IN 2007

Outstanding real stock1 1/1/2007, SEK billion	217.3
Auctions	5.0
Exchanges	-11.8
National Debt Savings Inflation-linked	-0.1
On-tap exchanges	2.8
Inflation-linked bonds taken over	-0.7
Indexation	4.2
Outstanding real stock, 31/12/2007, SEK billion	216.8

¹ Outstanding nominal amount including indexation

TABLE 4.9 AUCTIONS OF INFLATION-LINKED BONDS

	2003	2004	2005	2006	2007
Issue volume ¹ , SEK b	illion 18.2	17.7	13.0	3.8	-6.8
Volume sold ² , SEK bil	lion 18.2	17.7	12.1	6.7	5.0
Cover ratio ³	3.8	2.3	3.8	4.0	5.16
Average yield ⁴ , %	2.83	2.38	1.61	1.62	1.87
BEI⁵, %	2.09	2.23	1.84	1.89	2.21

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

² Total sold volume in auctions excluding exchanges and buybacks.

³ Volume of bids received in relation to offered issue volume.

⁴ Weighted average rate over the year in the outright auctions, i.e. exchange auctions are not included.

⁵ Average break-even inflation in the outright auctions.

Pert cent

5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0 2005 2006 2007 SO 1049 RO 3105 BEI 1041/3105 Actual inflation

Figure 4.7 INTEREST RATES, BEI AND ACTUAL INFLATION

The figure above shows the market rate trend 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 break-even inflation varied between 1.4 and 2.6 per cent, with an average of 2.0 per cent in 2007.

To compare the cost of inflation-linked borrowing with the corresponding maturity, the break-even inflation (BEI) is calculated. This specifies how high average inflation must be during the life of the bond for the cost to be the same for inflation-linked and nominal borrowing. If inflation is lower than the break-even level, inflation-linked borrowing will be more advantageous than borrowing in nominal bonds with the corresponding maturity.

In 2007 the break-even inflation rate gradually rose. On average we issued at a break-even inflation rate of 2.2 per cent. The average inflation rate, measured in terms of CPI, was 1.8 per cent during the year⁵. The success of the year's inflation-linked borrowing in terms of cost is only determined when the bonds mature and we know what the actual inflation rate was.

Figure 4.8 COMPUTED RESULT



The two inflation-linked loans that have so far matured (2001 and 2004) have together generated cost savings of about SEK 1.8 billion. In addition there is the calculated unrealised result accumulated in inflationlinked borrowing since the start in 1994. A large part of the accumulated unrealised result comes from low inflation figures in previous years. Average inflation has been about 1.3 per cent since the start in 1994, which is clearly lower than the average break-even level at which we have issued.

Inflation-linked borrowing performance

The computed result, measured as the difference in cost between borrowing in inflation-linked and nominal bonds, increased by SEK 0.8 billion in 2007. The positive result is due to actual inflation being lower than the average break-even inflation at which the inflation-linked bonds were issued.

The inflation-linked market was ranked low in the Prospera survey (see Section 7) in terms of liquidity and price information. In our opinion, this is mainly due to the reduced borrowing requirement and many investors having a buy and hold strategy, which reduces liquidity in the market.

4.3 Foreign currency borrowing

Foreign currency debt equivalent to SEK 62 billion matured during the year. To achieve our amortisation target of SEK 40 billion we borrowed the equivalent of SEK 20 billion in foreign currency. This means that in practice we amortised SEK 42 billion. The difference is due to the difficulty of managing the rate of amortisation in detail because of exchange rate fluctuations. Borrowing normally takes place through our issuing

⁵ Average inflation was 1.8 per cent for the period October 2006 up to and including September 2007. Inflation-linked loans are indexed to the CPI with a three-month lag.

foreign currency bonds (direct foreign currency borrowing on the capital market) or through exchanging Swedish currency borrowing for foreign currency exposure (krona/swap borrowing). Briefly, krona/swap borrowing means that the yield on government bonds in kronor is exchanged for a short-term foreign currency interest rate exposure and the borrowed amount is converted to foreign currency. See the krona/swap borrowing fact box for a more detailed description.

Table 4.10 FOREIGN CURRENCY LOANS

SEK billion	2003	2004	2005	2006	2007		
Bonds in foreign							
currency	-29.5	-21.6	-43.4	-30.3	-19.9		
Currency swaps	-11.2	-10.9	-18.3	-21.5	-38.4		
Realised exchange							
gains	-5.2	-4.8	8.0	-6.0	-3.2		
Other *	0.2	-0.8	-0.3	0.1	-0.7		
Maturity and foreign							
currency losses	-45.8	-38.1	-54.0	-57.6	-62.3		
Bonds in foreign							
currency	10.6	10.4	25.3	20.4	5.4		
Currency swaps	10.6	2.2	4.5	23.2	10.9		
Long-term foreign							
currency borrowing	21.3	12.5	29.9	43.7	16.2		
Short-term net borrowing including	I						
futures	-0.9	0.0	3.9	-4.6	3.9		
Amortisation of foreign currency							
debt	25.4	25.5	20.3	18.5	42.2		

* Up to and including 2002 the item mainly refers to CSA flows. From 2003 onwards the item refers to changes in exposure from currency exchanges not covered by the items reported in the table. We have been able to borrow on considerably better terms in the international capital market compared with 2006. This is partly due to the credit crunch, which meant very good terms for issuers with a high rating, and partly due to the considerably lower central government borrowing requirement. For example, we did not raise any new loans in dollars, which would probably have been more costly for us compared with only increasing previously issued debt.

We borrowed on four occasions in 2007. In April and May we increased an existing Eurodollar loan (7 February 2011, 4.5 per cent) by a total of USD 500 million. In May and October we increased another Eurodollar loan (15 June 2010, 3.875 per cent) by USD 100 million. In the primary market, bonds were sold to a great extent to central banks in Asia but also to smaller investors in Switzerland.

On average, bonds in foreign currency were issued at the three-month USD LIBOR rate minus about 33 basis points. After commission, this is the equivalent of 30 basis points. In 2006 we could borrow at the equivalent of 22 basis points under USD LIBOR.

We also conducted some short-term borrowing in foreign currency. Altogether, SEK 15.8 billion was borrowed in the commercial paper market. The maturity of the loans was two months, and the interest was 55 basis points below the standardised bank rate for dollars (USD LIBOR). The low borrowing cost is an example of the effect of the credit market unrest. The commercial paper loans were mainly part of the short-term Swedish currency borrowing (see section 4.1), since they were hedged with currency forwards. Just under SEK 4 billion was not hedged and thus formed part of the year's foreign currency borrowing.

Krona/swap borrowing

The first step of a krona/swap transaction is that we borrow on the Swedish bond market. Then we make a swap in which we receive a fixed swap rate, which is higher than the bond rate, and pay a floating rate in foreign currency. The exposure in the long-term bond rate is thereby eliminated. This transaction constitutes a combined interest rate and currency swap (base swap). Within the framework of the swap we exchange the Swedish currency amount from the bond loan to the foreign currency with our counterparty. The final result is that we issue a bond loan in Swedish currency but receive the amount and pay a floating rate in foreign currency. When the swap matures we exchange the borrowed amount back into Swedish kronor with our swap counterparty. Under the agreement, this is at the same rate as the original currency exchange. We can pay the matured bonds with the krona amount. To be able to exchange the amount back to Swedish currency we must first buy the foreign currency. This creates a currency exposure, since we do not know the future exchange rate when we make the swap. Hence krona/swap borrowing is subject to the same currency exposure as when we issue a bond directly in foreign currency. Krona/swap borrowing was SEK 11 billion of the long-term foreign currency borrowing. Krona/swap borrowing cost an average of 54 basis points under USD LIBOR, which is considerably less than previous years.

When we raise a krona/swap loan we must take into account that this reduces the scope for using swaps instead of T-bills in Swedish currency borrowing. In other words, an alternative cost arises when we use swaps in foreign currency borrowing, since we miss out on a profitable form of Swedish currency borrowing. The borrowing cost for bonds and krona/swap borrowing in Table 4.11 are therefore not directly comparable. At the same time, the high STIBOR rates in the autumn reduced the alternative cost of krona/swap borrowing in 2007.

Foreign currency borrowing performance

The sound creditworthiness and very limited borrowing requirements of the Swedish state meant that we could borrow on favourable terms compared with previous years. This is particularly true in the Eurodollar market. On several occasions we could take advantage of the large demand from specific investors. Our loans thus retained their high value in the secondary market, which is important both for future issues and for their attractiveness to investors.

Table 4.11 BORROWING COSTS FOR VARIOUS TYPES OF FUNDING

Basis points under USD LIBOR

Total borrowing cost	-27.5	-27.6	-26.8	-27.8	-46.1
Krona/currency swaps	-28.2	-18.0	-21.0	-32.6	-54.0
Borrowing in bonds	-26.9	-29.6	-27.9	-22.2	-29.9
	2003	2004	2005	2006	2007

In 2007 the Debt Office borrowed in foreign currency at a variable cost equivalent to 46.1 basis points below the standardised three-month bank rate for dollars (USD LIBOR); 33 per cent was borrowed by issuing bonds in foreign currency at a cost equivalent to 29.9 basis points under USD LIBOR, and 67 per cent was borrowed in kronor which was then swapped (see fact box) for foreign currency corresponding to a cost of 54.0 basis points below USD LIBOR.

5. Active foreign currency management

The Government has enabled the Debt Office to pursue active foreign currency management. For 2007, however, it set a total risk mandate of SEK 600 million in terms of daily Value-at-Risk (VaR). For active foreign currency management the Board allocated SEK 220 million for daily VaR. To diversify its foreign currency management and to be able to evaluate its own management, the Debt Office uses the services of a number of external managers who act on the same mandate but on a much smaller scale.

5.1 Active management performance in 2007

The Debt Office's total active foreign currency management made a loss of SEK 238 million in 2007. Our own management accounted for SEK –203 million and the external management for SEK –35 million. The Debt Office took positions that gave an average VaR of SEK 29 million in 2007, compared with SEK 62 million in 2006⁶.



Figure 5.1 RISK UTILISATION IN ACTIVE MANAGEMENT SEK million

Figure 5.2 RETURN ON INTEREST RATE POSITIONS IN SEK MILLION



In other words, we used a relatively small part of the total risk mandate. Risk utilisation was particularly low with regard to currency positions at the beginning of the year but increased towards year-end; see Figure 5.1.

Interest rate positions

Our positions in the fixed income market accounted for the total negative return in 2007.

In 2007 long-term interest rates experienced a strong upward trend until the summer, when uncertainty grew about the credit risks linked to the housing market in the US. This uncertainty spread quickly to other types of credit risk and to other parts of the world. Investors consequently turned to government bonds, which led to strong downward pressure on bond yields in the second half of the year.

Uncertainty on the financial markets grew during the autumn and had a dampening effect on the US economy. To offset this, the Federal Reserve embarked on a series of interest rate cuts. The result was a sharp decline in short-term US interest rates, which by the end of the year had reached very low levels.

The Debt Office was positioned for a general interest rate increase in Europe and the US during the spring and summer, which initially produced a profit but then led to a sharp reversal from July onwards; see Figure 5.2.

We also had positions for an upturn in the short-term interest rate in Europe and the US, and a downturn in the UK. Our intention was to capitalise on market expectations of changes in policy rates by the ECB, the Federal Reserve and the Bank of England.

Currency positions

Last year was characterised by financial unrest, which had a significant dampening effect on investors. This meant, among other things, the end of the popular trend of making up for interest rate differences in different short-term interest rates, for example by selling Swiss francs and Japanese yen for Australian dollars and British pounds. This resulted in the strengthening of the euro and the yen during the year while the dollar and the pound fell in value.

⁶ Comparative values for the previous year have been changed due to a new method of calculation and also because this year's values include the external managers Foreign currency, in total, accounted for positive active management performance. Our largest foreign currency positions during the year were purchases of euros and yen against the dollar. The positions were based on factors including the slowdown in the US economy and the substantial deficit in the US trade balance. Other positions were mainly purchases of US dollars against Canadian dollars, purchases of Norwegian kronor against euros and purchases of euros against pounds and Swiss francs. The purchases of euros against dollars and Norwegian kronor against euros were the most successful positions and the purchases of yen against euros the most negative; see Figure 5.3.

Figure 5.3 PERFORMANCE OF CURRENCY POSITIONS IN SEK MILLION



External managers' performance

Since1992 the Debt Office has engaged external managers so as to have a yardstick against which we can evaluate our own active management, spread the management risks and strengthen expertise at the Office. These external managers also serve as an important source of information for internal management. During the year, we worked with five external managers: ABN AMRO, Black-Rock, Bridgewater, IPM-First Quadrant and PIMCO.

The managers' risk mandate is based on nominal benchmark portfolios that are equivalent to a total of SEK 6 billion per manager (ABN AMRO SEK 8 billion). The average return for external managers last year was slightly below zero. The spread between managers was large: 0.46 per cent was the best return and -0.67 per cent the worst. IPM-First Quadrant performed best and was the only manager to reach the Office's target rate of return for profit sharing of 0.25 per cent.

Risk-adjusted return

The information ratio⁷ is a commonly used measure to report risk-adjusted return and shows the relationship between management performance and the risk taken to achieve it. A high value means that the manager has taken a relatively small risk in relation to the performance achieved.

Figure 5.4 below shows the risk-adjusted return for the past six years for the Debt Office and the external managers that have been engaged for part or all of the period.

As we can see from the figure, IPM and the Debt Office have the best risk-adjusted return followed by ABN and PIMCO.

Over the ten-year period since 1997, the risk level (volatility) of the performance, measured only as an annual standard deviation⁸, was consistently lower for the Debt Office's active management than for the external managers.





5.2 Performance and evaluation 2003–2007

Management performance for the period 2003-2007 resulted in a profit of almost SEK 1 billion; see Table 5.1. Active management by the Debt Office has on average produced better results than the external managers.

Since introducing active management in 1992, the Debt Office has achieved cost savings of approximately SEK 12 billion. Performance was particularly positive in 1992–1998, 2002–2004 and 2006 largely due to our interest rate positions but currency positions also performed well over the entire period.

⁷ The information ratio states a return divided by the volatility (standard deviation) in this return.

⁸ Calculated on the basis of monthly data.

Table 5.1	ACTIVE FOREIGN CURRENCY MANAGEMENT PERFORMANCE	

	2003	2004	2005	2006	2007	Entire period
SEK million						
Total management	937	195	-430	339	-238	803
Debt Office	880	164	-426	348	-203	763
Of which:						
Interest rate positions	224	-18	187	367	-241	519
Currency positions	656	182	-613	-19	38	244
External managers	57	31	-4	-9	-35	40
Performance as a percentage of assets under management						
Debt Office	0.52	0.11	-0.25	0.21	-0.12	-
External managers	0.14	0.09	-0.01	-0.03	-0.11	-
Information ratio						
Debt Office	2.1	0.7	neg	1.0	neg	1.0
External managers1	0.7	0.3	neg	0.2	neg	0.5

¹ Average information ratio

6. Retail borrowing

Borrowing on the retail market is directed at private individuals, small businesses and organisations. On 31 December 2007, SEK 64 billion, or 5.4 per cent of the central government debt, was financed on the retail market; see Figure 6.1.

Our savings products

The Debt Office sells two products that are adapted to the retail market: lottery bonds and National Debt Savings. We also sell government securities to retail market customers via our website.

Lottery Bonds – saving with a chance to win Lottery bonds are our most popular savings product with a total of 500 000 customers.

We sold two new lottery bonds in 2007, one in April and the other in October. New sales totalled SEK 9.1 billion. Unusually large amounts maturing during the year meant that the outstanding stock of lottery bonds fell by SEK 3 billion to SEK 38.2 billion.

National Debt Savings

- more interest in savings accounts

The decline in the equity market and rising interest rates resulted in a sharp rise in deposits compared with 2006. The rise was only in floating rate accounts, which now represent 70 per cent of the total volume of National Debt Savings. Altogether, National Debt Savings rose by SEK 2.3 billion during the year and on 31 December the outstanding volume was SEK 25.4 billion. At the end of the year, there were 145 000 National Debt Savings customers. Interest on floating rate

Figure 6.1 RETAIL MARKET BORROWING, TOTAL AND AS PERCENTAGE OF CENTRAL GOVERNMENT DEBT



¹ The National Savings Account is an old type of saving that was discontinued in 2005.

National Debt Savings rose from 2.75 to 3.75 per cent during the year as a result of the Riksbank's repo rate increases.

Internet sales of government securities

Interest in buying government securities via our website increased in 2007. We sold government securities worth SEK 1.4 billion and won 900 new government securities customers. This represents a sales increase of 50 per cent and a 90 per cent increase in the number of new customers.

Interest is greatest in short maturities. Both in 2007 and 2006, government securities (with maturities of between 2 and 12 months) accounted for 98 per cent of sales.

The cost of internet sales was SEK 4 million in 2007, a decrease of SEK 1 million compared with 2006. Government securities are sold to retail market customers at no margin, and thus we have no income from internet sales of government securities.

The role of the Debt Office in the savings market

The Debt Office savings market share is affected by both our sales and the general market trend. In 2007 the total fixed income savings market grew substantially, mainly due to the decline in the equity market. We were unable to keep up with this expansion and our market share fell by 0.9 percentage points to 5.6 per cent.⁹

Marketing

Retail borrowing

Security was the catchword for our marketing activities in 2007. We won several awards for our advertising, including the gold and silver awards in the "Effect, business to consumer" category in Posten's Guldlådan competition. We also won the gold in the "Analysis Award" category in the Guldnyckeln competition, arranged by the Swedish Direct Marketing Association.

New website a better sales channel

The internet is one of our most important sales channels for retail market borrowing. Our new website has made it easier for customers to find information and to register orders. Compared with the same period in 2006, the share of orders for National Debt Savings placed on the internet increased from 33 per cent to 40 per cent after the new website was launched.

⁹ Debt Office retail market borrowing as at 31 December 2007, total savings market as at 30 September 2007.

Retail market borrowing performance

In 2007 borrowing in the retail market reduced the costs of the government debt by SEK 171 million compared with borrowing in the capital market. For the five-year period 2003–2007, the total cost saving was SEK 826 million.

Table 6.1 SAVING ON RETAIL BORROWING¹

SEK million	2003	2004	2005	2006	2007
Lottery bonds	240	110	98	150	149
National Debt Saving	s 20	6	10	27	23
National Savings Acc	-4	-2	-	-	
Total saving	260	112	106	177	171

¹ Government securities are not included, since we pay the same interest to private individuals as to institutional investors.

The result shows how much more the corresponding borrowing would have cost in the institutional fixed income market. Income is measured as an interest rate margin against borrowing in corresponding maturities in the money and bond markets. The costs are the actual costs of borrowing in the retail market. The total saving fell by SEK 6 million compared with 2006; see Table 6.1. Lottery bonds performed the same as last year.

National Debt Savings performance weakened, falling by SEK 4 million compared with 2006. A discontinued system support project for National Debt Savings meant that expenditure of SEK 10 million that otherwise would have been accrued was realised in 2007. The project was abandoned because tests showed that the system was not sufficiently stable. The fixed rate National Debt Savings accounts, similar to bonds, differ from the usual type of savings accounts on the market. That is why a standard system requires major adaptation to work with National Debt Savings.

The additional costs of the system project were offset by reduced capital loss costs compared with previous years. This was because interest rates rose, resulting in lower early redemption costs. Moreover, a larger outstanding stock increased the earnings base.

91

7. Market support and debt maintenance

7.1 Our strategy

The overall objective of central government debt management is to minimise the long-term cost without excessive risk-taking. To achieve this, we aim to create an attractive market for government bonds and T-bills with a broad and stable investor base. We do not, however, take positions in market development as part of the operational management of the Swedish currency debt.

At a strategic level, market support and debt management is mainly a matter of setting up principles for our operational activities. Among other things, these principles concern our borrowing strategy, which involves concentrating the debt to a limited number of maturities and maintaining effective sales channels.

In keeping with our principle of open, predictable and long-term communication, we publish "Central Government Borrowing - Forecast and Analysis" three times a year. These reports describe the interaction between our borrowing requirement forecasts, the guidelines established by the Government, and the breakdown of borrowings by instruments. The purpose is to make it easier for market actors to follow developments in, and gain an overview of, central government debt policy.

An important component of our external communications is the website for institutional borrowing. It has been enhanced during the year to create a more userfriendly and content-rich website.

Investor relations must be characterised by openness, transparency and predictability. The Debt Office follows a long-term plan and works with Swedish and international counterparties on a continuous basis. Meetings with investors are planned before the start of a new calendar year, and in 2007 several trips were made to meet with investors abroad.

A more detailed description of the principles mentioned above can be found in our financial and risk policy.

7.2 Market commitments

The Debt Office has a number of market support commitments to its primary dealers. The purpose is to reduce uncertainty in conditions of short supply and compensate for the relatively small size of the Swedish market. These commitments apply regardless of our own cash requirements.

The most important commitments are:

- · liquidity-neutral repo swaps offered in all government securities,
- exchanges between inflation-linked bonds,
- special terms offered in connection with newly introduced nominal government bonds and T-bills to promote liquidity until the remaining volume is sufficiently large to generate liquidity, and
- market support repos offered in all nominal benchmark bonds, inflation-linked bonds and T-bills.

In 2007 we performed repo swaps equivalent to SEK 43 billion. This can be compared with the 2006 figure of SEK 27 billion. On-tap exchanges of inflation-linked bonds amounted to SEK 5.2 billion, which was slightly more than in 2006.

The greatest focus was on market support repos, mainly because of the global credit crisis. During the year, our market support repos averaged SEK 15.5 billion per business day, but this figure masks considerable variation during the year. In September and October, daily repo volumes were often around SEK 50 billion, as compared to the previous year when repos averaged SEK 5.1 billion a day.

A market support repo means that a primary dealer can buy a government security from us with an agreement to sell it back after a certain number of days. This applies regardless of our borrowing requirements. Market support repos aim to increase liquidity and deepen the government securities market. This in turn reduces uncertainty for primary dealers and limits the risk of higher transaction costs.

Repos are offered at an interest rate set in relation to the Riksbank repo rate. Since we want the market actors themselves to manage the repo market as far as possible, this interest rate is lower than the Riksbank repo rate.

The sharp increase in demand for market support repos is mainly a consequence of the global credit crisis, which led many investors to increase their holdings of safe government securities. Periods of large portfolio movements guickly result in conditions of short supply, or squeezes, when it is difficult for the actors to find the required

instruments on the market. These squeezes are accentuated when investors do not repo their holdings. For example, if a security is sold by a repo market player but bought by an investor who is not a repo market player, the security disappears from the liquid part of the market.

The increased interest in performing market support repos with us during the year meant at times that we had large surpluses to invest. We normally manage surpluses or deficits remaining at the end of the day through deposits. However, as deposits are associated with credit risk, there are limits on the size of the deposits we can make with each counterparty.

To limit our credit exposure, we invested some of our surpluses in the form of a repo and thus received collateral in connection with the loan. The most common forms of collateral are government securities or mortgage bonds. In light of the strong demand for government securities, our investments were mostly made with mortgage bonds as collateral.

The repo commitment helped the Swedish fixed income market function relatively well during the global credit crisis. Our repos made a positive contribution in the form of additional liquidity and stability in the market, which made it easier for our primary dealers to sustain trade in government securities. The euro market, for example, had difficulties at times in maintaining liquid trading. Prospera's survey (see section 7.3) found that the primary dealers value the market support repos we offer even more now than previously.

At the same time, repo volumes that are too large present several drawbacks. If the market support repos result in our having long-term surpluses, this will ultimately affect our ability to issue government bonds. In the long term, we will only be able to issue bonds that cover the budget deficit and/or maturities. In addition, our actions may cause a distortion in the market price. Market prices are important indicators of changes in supply and demand, and function as an incentive for change. To the extent that our repos reduce the impact in the market, there is a risk of delaying necessary adjustments.

During the autumn, therefore, we initiated a dialogue with our counterparties on how to deal with this situation. Our view was that is was not possible for us in the long term to maintain the repo volumes we had in 2007 and that what is required is market adjustment. This applies in particular to T-bill repos.

We also pointed out that more investors must repo their own holdings of government securities. Demand for repos with us declined towards the end of 2007 and stabilised at manageable levels. We considered, therefore, that it was not immediately necessary to im-

Figure 7.1 MARKET SUPPORT REPOS IN 2007 SEK million



plement any major changes. In the longer perspective, however, we need to review the terms. Below are the decisions we took in December 2007.

- Higher premium for market support repos. We decided in December to increase the premium by 10 basis points from 1 April, mainly to adapt to a new interest rate situation in the market caused by the Riksbank increasing the repo rate.
- Increased volume of repo swaps. It will be possible in the future to increase the volume of repo swaps. The advantage of repo swaps is that they do not affect our financing requirements.

We had earlier decided that the terms for repos were to be the same regardless of our cash position and accordingly, as of autumn 2007, we no longer offer more favourable terms for repos when we ourselves have a deficit. This also means greater predictability for investors in the repo market.

In 2008 we will continue to assess the need for policy changes. However, a prerequisite for more substantial changes is a more comprehensive and deeper dialogue with the market. In the first quarter of 2008 we intend to create a basis for continuing our discussions. The comments that are presented will determine whether further changes will be implemented.

Our overall assessment is that the repo commitment has had positive effects on market stability. For our part, a well-functioning market is important even in times of uncertainty; it reduces our funding costs and helps us maintain good and long-term relations with our investor base.

This does not mean there is no room for adjustments that can further improve our commitment to the market. The Government has also asked us to submit an indepth analysis of our repo commitments, which we plan to do in autumn 2008.

7.3 Investors' perception of the Debt Office

For the fourth consecutive year we engaged the services of Prospera to conduct an evaluation of our borrowing activities. At the end of 2007, interviews were carried out with 54 Swedish and foreign investors, 8 primary dealers and 6 other Swedish government bond market makers.

Since the first survey was conducted in 2004, the Debt Office has received increasingly positive evaluations. This was the case in 2007 as well; the overall impression of the Debt Office was very good. We also received a significantly higher score this time for communication and auction planning. The results also showed that knowledge about our activities has increased among international investors.

The weaknesses were mainly related to investor contact and market responsiveness, although scores for the latter have improved. The survey found that Swedish actors now place even greater demands on the Debt Office to maintain good contact with its counterparties.

The results of the survey are presented below.

- Overall, the Debt Office's information on borrowing requirements, funding, issue volumes and terms was excellent and predictable. The Debt Office received high evaluations in international comparisons, particularly by international actors. The scores from Swedish investors were slightly lower.
- The sale of government securities worked very well. The forms of sale and information were rated as excellent by virtually all actors. The impression of how we reduced auction volumes for inflation-linked bonds and T-bills, however, was slightly less positive.
- Our primary dealers appreciate our market support repos but did not give us as high an evaluation as in 2006, despite the fact that market support repos were used to a very great extent.
- Our primary dealers are less satisfied with the Debt Office's on-tap exchanges of inflation-linked bonds.
- Swedish investors are still of the opinion that the Debt Office is not sufficiently responsive to the wishes of the market. At the same time, some believe that the Debt Office should not be too responsive.
- · Judging by the answers, we still do not meet with investors often enough. Slightly more than half - less than in 2006 - of our Swedish investors are interested in taking part in investor meetings.
- The number of investors participating in the primary market has fallen for the third consecutive year.
- · Good liquidity and price transparency on the secondary market for nominal bonds. International actors, however, were less satisfied. All respondents considered liquidity and price information in the inflationlinked bonds market unsatisfactory.

The result is well in line with our impressions of how the market and our activities function. We find it particularly pleasing that our market support repos are appreciated and that they were felt to have a stabilising effect on the fixed income market. The fact they nevertheless received a lower evaluation than the previous year is likely due to the uncertainty among market actors about the Debt Office's future actions and role in the repo market.





The scale ranges from 1 to 5. Values above 4 are considered as excellent or very important, and values below 3 as unsatisfactory or unimportant.

As indicated above, the number of players in the primary market continued to decline in 2007. This may be due to the secondary market being considered large and liquid enough for government securities trading. Another possible explanation is that the auctions did not contribute very much more in terms of volume compared with what was already available for purchase in the secondary market.

Criticism about insufficient responsiveness to the market's wishes was probably a result of our not needing to borrow as much as previously and therefore not being able to meet the demand for government securities.

In light of the comments from previous surveys, we offered several opportunities for discussions with investors and primary dealers in 2007. In addition to information meetings in connection with the publication of the report on central government borrowing, we also had a number of in-depth discussions on our repo commitments due to our reduced borrowing requirement.

Areas covered by the survey

Communication and information

- Clear information on borrowing requirements/ a. funding
- b. Good contact with investors and primary dealers

Borrowing

Good forms of sale for:

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

Appropriate timing and time intervals for auctions

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

Useful information on volumes and other terms

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

Clear/consistent action when reducing auction volumes

- f1 Nominal bonds
- f2 Inflation-linked bonds
- fЗ T-bills

General

Responsiveness to the wishes of the market

Professional conduct

- International comparison j
- Comparison with Swedish mortgage institutions k

8. Performance and achievement of objectives

It is not possible to obtain an accurate evaluation of whether the objective of minimising the long-term cost of government debt without excessive risk-taking was achieved. The decisions that are most important in terms of costs and risks are taken by the Government in the guidelines for central government debt management. The evaluation of these decisions must address whether they, as a whole, appear to be reasonable and well judged, taking into account the objective and the information available at the time of the decisions. The control system for central government debt management is based on the Riksdag making such an assessment every year.

The Debt Office's proposed guidelines are based on our assessment of how the debt should be managed to achieve the objective. Since the system of annual guidelines was introduced in 1998, the Government has in all essentials followed our proposals. To date the Riksdag has found that the Government guidelines have been consistent with the objective. Since it is the Riksdag that has set and interprets the objective, this indicates that the Debt Office's work on the guideline proposals has made an important contribution to achieving the overall objective of central government debt management.

We consider that we also achieved the other objectives of central government debt management in the appropriations directions and guideline decisions. We would like to draw particular attention to the following:

- We amortised SEK 42 billion of the foreign currency debt. The foreign currency component of central government debt fell to -17.6 per cent of the total central government debt, but is still higher than the long-term benchmark in the Government guidelines.
- The proportion of inflation-linked debt increased to 26.4 per cent of central government debt, and is slightly higher than the benchmark in the Government guidelines.
- We achieved the objective for the total debt maturity.
- · Active foreign currency management made a loss of SEK 238 million in 2007. The profit for 2003-2007 was SEK 803 million.
- Borrowing in the retail market produced a surplus of SEK 171 million. The profit for 2003-2007 was SEK 826 million.

In addition to these measurable results, our well-considered market support and debt maintenance activities contributed to an efficient government securities market. This assessment is supported by the year's survey results. A sound government securities market leads to lower borrowing costs for the state and lower risks, in that efficient markets are available if the central government borrowing requirement should suddenly increase.

() ()



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