

# Central Government Borrowing: Forecast and Analysis

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## Economic upturn but increasing central government debt

After several years of deteriorating central government finances and an increasing borrowing requirement, the National Debt Office's forecast for 2005 indicates some improvement. The borrowing requirement is estimated to be SEK 43 billion next year, which can be compared with a borrowing requirement of SEK 64 billion in 2004. This improvement is due to increasing tax revenue ensuing from a cyclical upswing, and to lower interest payments on central government debt. The reduction in interest payments between the years is due to large foreign exchange gains on maturing dollar loans and is thus largely nonrecurring.

One of the articles in this issue describes central government processing of loans with a credit risk. Altogether, central government lending totals SEK 170 billion, the major part consisting of study loans. Lending by the Debt Office amounts to SEK 9 billion. The starting point of the article is to analyse the regulatory framework for central government lending in the spirit of the Budget Act and the specific regulatory frameworks that already exist for provision of central government guarantees. According to the guarantee model, the agencies that issue guarantees are to evaluate and price the risk in the undertaking. The fee is to be paid by the company that receives the guarantee or, if the Swedish Parliament, the Riksdag, decides to subsidise the fee, by funds from the central government budget. In the latter case, the fee must be dealt with in the regular budget process and considered in relation to other expenditure under the expenditure ceiling. The system thus makes visible the *implicit* costs that central government assumes when it issues guarantees, at the same time as the fees can be used to cover any redemptions. In this way, the political system is obliged to weigh the costs of guarantees against other government expenditure; infrastructure investments can then be weighed in a transparent way against expenditure for, for instance, education or the police service.

It should operate in the same way if central government instead decides to lend money directly to an activity. However, despite the fact that central government assumes the same risk in this case, there is no corresponding system of rules for central government loans. There is thus a risk that central government will opt to increase lending in situations when the budget is under strain in order to create scope outside the expenditure ceiling. Unlike central government guarantees, the system does not lead to a transparent handling of the risks assumed by central government. And, in this way, the system risks leading to an overuse of central government loans. The Debt Office is therefore proposing amendments to the Budget Act to place the rules for loans and guarantees on the same footing.

The state audit institution, Riksrevisionen, has, after examination of the Debt Office's annual report, made an auditor's qualification concerning the valuation of outstanding loans with a credit risk. Riksrevisionen considers that the loans should be valued taking into consideration any write-down requirements, which means that anticipated loan losses are to be reported. We will comply with Riksrevisionen's recommendations in the interim report to be published by the Debt Office in mid-August and provide a clear account of anticipated loan losses in our loan portfolio. This further underlines the need for a regulatory framework for loans provided by central government.

*Thomas Franzén*  
*Director General*



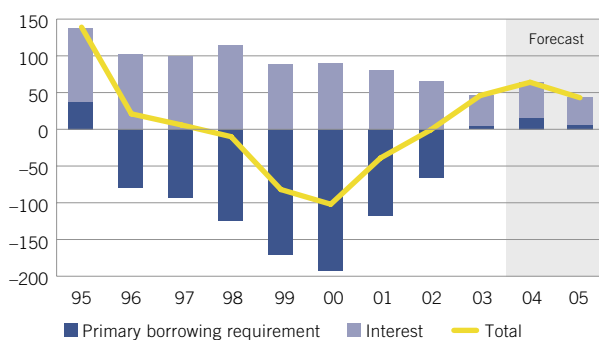
## The central government borrowing requirement

The Swedish National Debt Office's forecast of the borrowing requirement in 2004 indicates a deficit of SEK 64 billion, which is SEK 4 billion less than in the February forecast. The borrowing requirement for 2005 is estimated at SEK 43 billion. The main explanation for the reduction in the borrowing requirement between these years is lower interest payments on central government debt and increasing tax bases. Central government debt is calculated to increase to SEK 1,332 billion at the end of 2005. This is equivalent to approximately 50 per cent of GDP.

After a period with budget surpluses around the turn of the millennium, the Swedish National Debt Office expects that central government will need to borrow for the third consecutive year in 2005. However, the borrowing requirement next year is expected to be less than this year due to lower interest payments on the central government debt. Another reason is that the recovery that has started is expected to become stronger. A cyclical upswing will lead to increased revenue from both consumption and wage-based taxes. At the same time, increases in expenditure will be restrained by the expenditure ceiling set by the Riksdag.

### Central government borrowing requirement, 1995–2005

SEK billion



### Forecast for 2004

The Debt Office's revised forecast for 2004 indicates a borrowing requirement of SEK 64 billion. Compared to February, the forecast has been reduced by SEK 4 billion. This is due to the borrowing requirement during the period February to May being lower than estimated in the February forecast. This is because a number of nonrecurring payments have been received. These consist mainly of dividends from state-owned companies. The forecast for the remaining months of the year is not therefore substantially affected by the borrowing requirement being lower than expected to date this year.

The primary borrowing requirement (all central government payments excluding interest payments) is estimated at SEK 15 billion. This is just under SEK 2 billion lower than in

the February forecast. This is primarily due to the dividends from Vattenfall och TeliaSonera being larger than expected.

Net tax revenues are, however, largely unchanged in relation to the previous forecast. There have been minor deviations among the different types of taxes. Lower refunds of value-added tax and higher payments of corporate taxes have resulted in increased tax revenues. At the same time, supplementary tax payments have been slightly less than expected during the spring. We also make the assessment that there has been a shift in *when* the public pay supplementary tax. While this does not affect the total borrowing requirement, it does explain why the monthly outcome during the spring has diverged from our monthly forecasts.

In line with our experiences in recent years, we are assuming as in previous forecasts that no divestments of state property will take place during the year. This differs by SEK 15 billion from the Government's assessment in the Spring Fiscal Policy Bill.

Disbursements for transfer payments and central government consumption have to date accorded well with our forecast. We have also taken into consideration for the remaining months of the year the limitation amounts that the Government presented in the Spring Fiscal Policy Bill with a view to complying with the expenditure ceiling in 2004. However, we make the assessment that further expenditure cuts will be required this year if the central government expenditure ceiling is not to be exceeded. In order to cover these measures we have, as in previous forecasts, included an item for unspecified expenditure cuts. This item is unchanged at SEK 2 billion compared with February.

Total net lending by the National Debt Office to government agencies, public enterprises and state-owned companies is expected to total SEK 18 billion. This is SEK 1 billion less than we estimated in February.

Interest payments on the central government debt will amount to an estimated SEK 49 billion. This is SEK 2 billion less than in the previous forecast. The lower interest payments are explained by the issue premiums being expected to be somewhat higher than before. The Debt Office will therefore receive more money on the borrowing dates than we estimated in February.

### ► Central government borrowing requirement and debt, 2003–2005

SEK billion	2003	2004 (forecast)	2005 (forecast)
Primary borrowing requirement	4	15	6
Interest payments on debt	42	49	37
Net borrowing requirement	46	64	43
Debt adjustments	-28	-2	0
Re-evaluation, foreign currency loans etc	-18	3	0
Short-term investments	7	-2	0
Change in central government debt	25	60	43
Debt at year-end	1,229	1,289	1,332

## Forecast for 2005

The Debt Office's forecast for 2005 indicates that central government payments will show a deficit of SEK 43 billion. In relation to 2004, this means that the borrowing requirement will decrease by SEK 21 billion. Approximately half of the reduction is due to interest payments on the central government debt being expected to be lower next year. The remaining part is mainly due to tax revenues being expected to increase more than central government disbursements as the recovery takes place. The expenditure ceiling will restrain the increase in central government disbursements.

*The primary borrowing requirement* (all central government payments excluding interest payments on the debt) is estimated at SEK 6 billion, which is SEK 9 billion lower than in 2004. This improvement is a consequence of tax revenues being expected to increase more than the central government disbursements.

Tax payments normally comply with the nominal economic development, where the development of the total amount of wages and salaries and private consumption are of great importance. Between 2004 and 2005, the increased tax revenue has primarily been based on a stronger development of total wages in the business sector. A large part of the increased taxes on earned income is passed on from central to local government, however. Total disbursements by the state to local government are expected to increase by SEK 16 billion between 2004 and 2005, the main part of which is local government taxes and the balance of central government grants. Local government disbursements would have been SEK 6 billion higher next year had not the advance tax payment for 2003 been too large. The reason for the advance payment being too large was that the total amount of wages and salaries, and accordingly local government tax revenue were overestimated. A too large advance payment in 2003 will mean that next year's final settlement will be negative.

As in 2004, we are not calculating on any divestment revenue from sale of state property during 2005. Neither have we included any additional transfers from the AP (National Pension) funds to the state, since no clear proposals have been presented.

## Conditions behind the forecast

The Debt Office's forecast for tax revenues and transfer payments is based on the National Institute of Economic Research's (NIER) macroeconomic picture in its latest issue of *The Swedish Economy* in March 2004. NIER anticipates a relatively slow cyclical recovery during 2004, which will then accelerate in 2005.

NIER estimates that GDP will increase by 2.5 per cent this year and 2.6 per cent in 2005. 0.6 per cent of the growth this year is estimated to be due to the year having more working days than a normal year. Taking this into consideration, the recovery will be stronger between the years than indicated by NIER's GDP statistics. However, employment is expected to be more or less unchanged despite the cyclical recovery since growth is expected to be led by productivity increases. The cyclical upswing is expected to lead to an increase in consumption and wage-based taxes. The rate of increase of the total amount of wages and salaries in 2005 is approximately one percentage point higher than in 2004.

The outcomes of the borrowing requirement up and including May have been included in the current forecast. The forecasts are moreover based on the proposals presented by the Government in the Budget Bill for 2004 and now most recently in the Spring Fiscal Policy Bill. The Debt Office's forecast of interest payments on the central government debt is based on the interest rates and foreign exchange rates prevailing on the forecast date. The cut-off date for the present forecast is June 4, 2004.

Approximately 70 per cent of central government disbursements are transfer payments. The total size of the transfer payments depends on the compensation levels and volumes (the number of benefit recipients). In most cases, the benefit levels are adjusted upwards automatically in relation to price and wage movements, while the volumes are governed by other factors such as employment, demography and health. While disbursements for pensions and annuities are expected to increase by 3–4 per cent between 2004 and 2005, disbursements for sickness benefit are expected to remain at the level that they have stabilised around since autumn 2003.

Disbursements by agencies for central government consumption and investments are mainly governed by the appropriations allocated in the central government budget. In the Spring Fiscal Policy Bill, a limit amount was proposed for certain areas in 2004 with a view to complying with the expenditure ceiling. We assume that these limit amounts equivalent to SEK 4 billion will increase disbursements in 2005. These disbursements have accordingly only been postponed.

## Sensitivity analysis

All forecasts include elements of uncertainty. The Debt Office does not produce any overall uncertainty analysis for the borrowing requirement. Instead we present a partial analysis of the impact on the borrowing requirement that changes in some important macro variables, roughly estimated, will have in a one-year perspective. If one wishes to make an assessment of an alternative scenario in which several variables develop differently, their effects must be added together.

### Sensitivity analysis, SEK billion

Increase by one per cent / percentage point	Effect on borrowing requirement
Total wages and salaries <sup>1</sup>	-6
Household consumption, current prices	-2
Registered unemployment	4
Swedish interest rates	4
International interest rates	1
Exchange rate	0,5

<sup>1</sup> Local taxes based on working income are disbursed to local government with a one-year time lag. As a result, the effect on the central government borrowing requirement in a one-year time perspective – the time horizon in the table – is larger than the permanent effect.

The net lending by the Debt Office to government agencies, public enterprises and state-owned companies is expected to total SEK 15 billion, which is SEK 3 billion less than in 2004. The foremost explanation is that lending for infrastructure investments will decrease from approximately SEK 6 billion to approximately SEK 3 billion between the years. The Government's increased investments in infrastructure are expected to have the biggest effects after 2005.

Interest payments for 2005 are estimated at SEK 37 billion, a decrease of approximately SEK 12 billion compared with 2004. The most important explanation is the fluctuation of the exchange rate differences from a loss of SEK 4 billion in 2004 to a profit of SEK 7 billion in 2005. The gain is an accounting effect of the maturing next year of the dollar-denominated foreign exchange loans taken up in 2002. These loans were taken up at a 20 per cent higher dollar exchange rate than the current rate. The actual gain for the loans during the whole of their maturity is considerably lower, however. The reason for this is that the Debt Office has spread the currency risk in dollars to other currencies by derivatives.

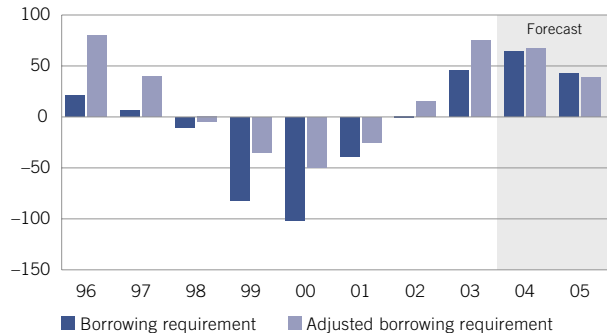
## Borrowing requirement adjusted for nonrecurring payments

The borrowing requirement is sometimes affected by non-recurring payments. Previous examples of such payments are the maturing of housing bonds that were transferred to the state from the AP (National Pension) funds and extra

dividend from the central bank. In order to obtain a more accurate picture of the development of central government finances, it is important to make adjustment for such non-recurring effects.

### Reported and adjusted borrowing requirement

SEK billion



The borrowing requirement during 2004 is forecast at SEK 64 billion. Adjusted for nonrecurring payments, the borrowing requirement will be SEK 67 billion. Compared to 2003, the adjusted borrowing requirement will shrink by SEK 8 billion, even though the actual borrowing requirement will increase by SEK 18 billion. The expected – albeit weak – cyclical upturn of the economy is the most important reason why the underlying borrowing requirement will decline this year.

In 2005, the borrowing requirement is estimated to amount to SEK 43 billion and the adjusted borrowing requirement to SEK 39 billion. The following table shows the borrowing requirement adjusted for nonrecurring payments during 2000–2005.

### Borrowing requirement adjusted for nonrecurring payments, SEK billion

	2000	2001	2002	2003	2004	2005
Borrowing requirement	-102	-39	-1	46	64	43
Divestment of government property		76				
Extra dividend from the central bank			20			
Transfers from National Pension Funds	45	42	7	14	4	2
Net lending to state agencies	-56	-25	-9	-3	-10	-10
Interest payments	-14	-5	-1	15	9	4
Other	1	2	-2	4	0	0
Adjusted borrowing requirement	-50	-25	14	75	67	39

## Comparisons with other forecasts of the borrowing requirement

The Debt Office's forecast for the current year indicates a borrowing requirement of SEK 64 billion, which is SEK 2 billion more than the Government's calculation in the Spring Fiscal Policy Bill. The National Financial Management

- Authority (ESV) and NIER calculate a borrowing requirement of SEK 63 and SEK 64 million respectively.

Adjusted for known differences in assumptions on divestments and interest rates, the Debt Office's forecast shows a SEK 10 billion lower borrowing requirement than the Government's. The Government's forecast of the primary borrowing requirement would be higher without the assumption of SEK 15 billion in divestment revenue. The remaining difference in the borrowing requirement can then be explained by the Government calculating with lower tax revenue or higher expenditure. ESV and NIER reported their forecasts for the central government borrowing requirement in June and March respectively and the Government in April.

#### Comparison between borrowing requirement forecasts, SEK billion

	Debt Office		Government		NIER		ESV	
	04	05	04	05	04	05	04	05
Primary borrowing requirement	15	6	10	-5	15	-1	14	1
Interest payments	49	37	52	41	49	39	49	40
Borrowing requirement	64	43	62	36	64	38	63	41
Borrowing requirement including Debt Office interest payments and divestment revenue	64	43	74	47	64	36	63	38

For 2005, the Debt Office calculates with a higher borrowing requirement than NIER and ESV, although lower than the Government, adjusted for known differences. The Government also calculates with divestment revenue of SEK 15 billion in 2005, which means that the primary borrowing requirement in their forecast is improved.

In common for all forecasters is that they believe in a rather substantial improvement between 2004 and 2005. A cyclical upswing in 2005 will be reflected in a low primary borrowing requirement. Furthermore, interest payments will decrease next year.

## Monthly forecasts

The Debt Office publishes annual forecasts three times a year. At the same time, we publish monthly forecasts for the intervening months. Between regular publications, the Debt Office only makes revisions of annual and monthly forecasts in exceptional cases. In these cases, the revised forecast is presented in conjunction with the presentation of

the monthly borrowing requirement outcome, which occurs five working days after the end of each month.

The forecast for the borrowing requirement in June 2004 is SEK -1.9 billion, which is a deterioration of SEK 2.3 billion compared with the previous forecast. The explanation for the high borrowing requirement in August is that the excess taxes are refunded then.

#### Monthly central government borrowing requirement 2004 SEK billion

	Jun.	Jul.	Aug.	Sep.	Oct.
Primary borrowing requirement	-3.5	1.9	10.9	6.8	5.5
Interest payments	1.6	-1.1	4.5	4.7	0.6
Borrowing requirement	-1.9	0.7	15.5	11.5	6.1

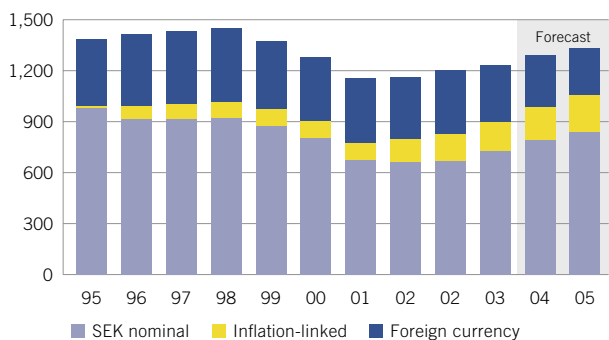
## The central government debt

At the end of May, the central government debt was SEK 1,228 billion. This is a reduction of SEK 1 billion since the turn of the year. The borrowing requirement has increased the central government debt by SEK 3 billion. However, this has been counteracted by debt-related dispositions of SEK 4 billion. One example of a debt-related disposition of this kind is the revaluation of the foreign currency debt, which affects the size of the debt but not the borrowing requirement.

The Debt Office makes no forecast of debt-related dispositions. The central government debt is therefore expected to increase at the same pace as the borrowing requirement. At the close of 2004, the debt is projected to total SEK 1,289 billion and at the end of 2005 SEK 1,332 billion.

#### The central government debt, 1995–2005\*

SEK billion



\* A new measure of the central government debt was introduced in the beginning of 2003.

## Funding

Issue volumes of nominal government bonds will be unchanged at SEK 4 billion per auction. A new ten-year bond will be issued in September and a new inflation-linked bond will be introduced in the autumn of 2005. A high level of maturing foreign currency loans means that foreign currency borrowing is expected to increase from SEK 11 billion in 2004 to SEK 30 billion in 2005.

### Gross borrowing

As shown in the previous sections, *the net borrowing requirement* is estimated to be SEK 64 billion in 2004. This is marginally lower than the forecast in February. Next year, the net borrowing requirement is expected to decrease to SEK 43 billion. The National Debt Office moreover needs to fund maturing bond loans and buy-outs. Total funding is calculated as being SEK 161 billion during 2004 which is slightly lower compared with the February forecast. Funding in 2005 is calculated as being SEK 162 billion. The reason for the funding requirement being largely unchanged between these years, despite the decreased net borrowing requirement, is the high level of maturing foreign currency loans during 2005.

The table also shows an estimate of the allocation of bond borrowing during 2004 and 2005 on nominal government bonds, inflation-linked bonds and foreign currency borrowing.

#### Funding 2004 and 2005, SEK billion

	2004	2005
Net borrowing requirement	64	43
Change in cash balance <sup>1</sup>	7	4
Maturing bonds, plus exchanges and buy-backs	89	115
Maturing government bonds	16	17
Maturing foreign currency loans <sup>2</sup>	22	43
Buy-backs and exchanges of bonds to bills	52	55
Total	161	162
Net funding with T-bills <sup>3</sup>	40	35
Bond issues, gross	121	127
Foreign currencies <sup>2</sup>	9	15
Inflation-linked bond issues <sup>4</sup>	20	20
Nominal government bond issues <sup>5</sup>	92	92
Funding	161	162

<sup>1</sup> Change in outstanding deposits, liquidity bills and repos. Retail borrowing (mainly from private individuals) is assumed to be unchanged during 2004 and 2005.

<sup>2</sup> Direct foreign currency loans, spot, valued at acquisition prices.

<sup>3</sup> Change in the stock of T-bills.

<sup>5</sup> Average issue volume per auction.

<sup>6</sup> Average issue volume per auction.

1.0

1.0

4.0

4.0

#### New bond issues – maturities and issue dates

Loan	Maturity	First issue date
Ten-year (1049)	Aug. 12, 2015	September 1, 2004
Seven-year (3106)	Apr. 12, 2012	Autumn 2005

#### Important dates 2004

Date	Activity
August 19, 9.30 am	Press release on exchanges of 1041 for 1049
August 25, 4.20 pm	Issue terms for 1049 (coupon fixing)
September 1	Issue of new ten-year bond loan 1049
September 2–7	Exchanges of 1041 for 1049
October 27	Central Government Borrowing – Forecast and Analysis 2004:3

### Nominal krona borrowing

#### Nominal borrowing in government bonds

##### Issue volume unchanged

The Debt Office expects borrowing in nominal bonds to total nearly SEK 92 billion during 2004 and 2005. This means that the issue volume remains unchanged at SEK 4 billion. Despite the net borrowing requirement decreasing by almost SEK 21 billion in 2005 compared with 2004, the issue volume can be maintained. The reason is there will be an increase of foreign currency loans falling due of approximately SEK 20 billion between these years. The increase in redemption must to some extent be funded by bond loans in SEK.

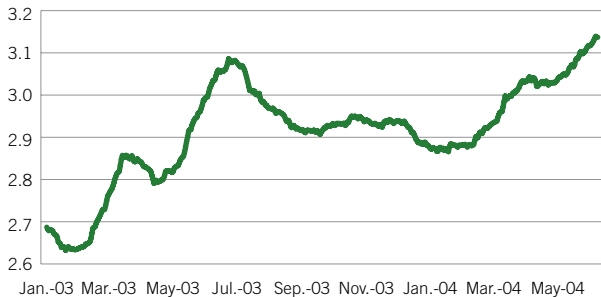
The duration target for the nominal SEK debt was increased in May 2004 from 2.9 to 3.0 years. At the same time, the duration target for the foreign currency debt was shortened from 2.3 to 2.0 years so that the combined duration of the nominal debt is unchanged at 2.7 years.

The prolongation of the duration of the nominal krona debt was intended to provide good prerequisites, also in an environment with low interest rates, for a well-considered allocation of borrowing between different maturities. In this way, borrowing can contribute to good liquidity over the whole of the yield curve and the emission volumes in government bond loans can reflect the longer-term borrowing requirement.

As the chart indicates, the duration has increased since February. The reasons are seasonal variations in the borrowing requirement and the low level of interest rates. With a retained volume of emissions, the duration will be restored to 3.0 years in the early autumn.

**Duration of nominal krona debt, 2003–2004**

Year (one month moving average)

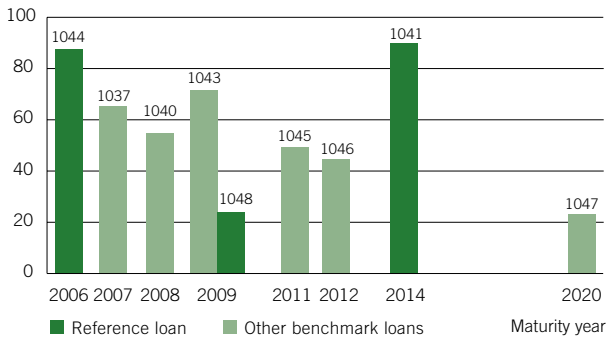


**New ten-year bond in September**

The Debt Office introduced a new government bond in January, loan 1047, with a maturity of approximately 17 years and due date on December 1, 2020. To date, approximately SEK 27 billion has been issued in the new loan. Demand has varied but has been good on the whole during the spring and provided scope for the planned issue volume.

**Nominal government bonds (benchmarks)**

SEK billion



A new five-year government bond, loan 1048 maturing on December 1, 2009, was introduced on March 10, 2004. The loan will be traded as a five-year benchmark in the electronic trading system from June 16.

A new ten-year bond loan, loan 1049, maturing on August 12, 2015, is to be introduced on September 1. During the first four business days after the auction, it will be possible to exchange loan 1041 (May 2014) for the new ten-year loan. The conditions for these exchanges will be announced in a press release on August 19. The coupon will be announced one week before the first auction day. The loan will be initially traded as a ten-year benchmark in the electronic trading system from December 15, 2004.

*Four loans to be included in the planned issues*

The Debt Office’s bond issues have ordinarily consisted of its reference (“super-benchmark”) loans with maturities of two, five and ten years that are traded in the electronic interbank market.<sup>1</sup> At the same time, the Debt Office’s policy is to maintain good liquidity in all benchmark loans. Now that loan 1047 has been introduced, this bond loan will also be issued. These loans thus enjoy what is usually referred to as “on the run” status.

Loan 1044 is currently being traded as a two-year loan in the electronic system. Loan 1037 is being traded as a two-year loan beginning on December 15, 2004.

Loan 1048 is being traded as a five-year loan beginning on June 15, 2005.

Loan 1041 is currently being traded as a ten-year loan. The new ten-year loan 1049 which was issued at the beginning of the autumn will become a reference loan on December 15, 2004.

<sup>1</sup> The loans treated as benchmark loans in electronic trading are determined by which loans are closest, in terms of maturity, to two, five and ten years. However, benchmark loans change only on IMM dates (the third Wednesday in March, June, September and December), with the criterion that in terms of maturity the loans should be closest to the two, five and ten years on the following IMM-date. With this change, an underlying loan in forward contracts will always be the same as a benchmark loan during the last three months of the contract

**Maturity dates for government bonds**

In *Central Government Borrowing 2004:1*, the possibility was discussed of introducing common maturities for nominal bonds. A policy of this kind would reduce the risk of liquid bond loans having too long or too short maturities in relation to the liquid maturities two, five and ten-year maturities and thus create better predictability. We would also obtain better matching of central government cash flows and opportunities for stripping.

After having obtained points of view on the proposal, our assessment is that the arguments are not sufficiently strong. Too great a concentration in time of maturing loans would create extensive cash flows that

could disrupt the pricing picture and produce excessively large fluctuations in liquidity before and after maturity date. Better matching of cash flows and well-considered choices of maturities can in principle be achieved without all loans maturing on the same date.

The Debt Office is accordingly not going to introduce common maturity dates for nominal and inflation-linked government bonds. The maturity date will be selected so that the most liquid benchmark bonds as far possible are given suitable maturities as well as provide good matching of the central government cash flows.



During 2004, issues will be allocated relatively evenly among the two, five, ten and sixteen year loans – with a certain emphasis on the three longest maturities. In 2005, issues are mainly planned in the five- and ten-year segment.

During the year, the Debt Office will issue bonds in more maturities than usual. On some occasions, there may be reason to issue two loans at the same auction to create more opportunities to submit bids on the various maturities.

## T-bills and interest-rate swaps

The stock of T-bills is projected to increase during 2004 and 2005.<sup>2</sup> How large the increase in the stock of T-bills will be depends on various relatively uncertain factors.<sup>3</sup> The share of T-bills of the central government debt will be largely unchanged, however.

The Debt Office can also create short-term borrowing by issuing bonds and then using interest-rate swaps to shorten the interest-rate refixing period.<sup>4</sup> Provided that the difference between the swap rate and the government bond rate is sufficiently large, this borrowing technique

will reduce the state's borrowing costs. We expect to create short-term borrowing with interest-rate swaps for approximately SEK 28 billion in 2004 and SEK 15 billion in 2005.

It is expected to use interest-rate swaps equivalent to approximately SEK 2 billion in 2004 and SEK 15 billion in 2005 in foreign currency borrowing; *see the following section on foreign currency borrowing*. The total scope of interest-rate swaps, with and without a connection to foreign

<sup>2</sup> The above table also presents changes in cash balances. This item includes changes in outstanding short-term funding (i.e. liquidity management instruments such as liquidity bills, overnight loans and repurchase agreements = repos) which mainly arise as a consequence of cash flows around the turn of the year. The item is included in order to achieve consistency in reporting. The net change in T-bill borrowing is of greatest interest when discussing longer-term funding

<sup>3</sup> The short-term funding requirement and how many T-bills are outstanding at the turn of the year will affect the size of the change. The scale of the planned exchange of a short-term bond to bills and the terms for exchanges when introducing the new bond loans will also be an important factor. The change is measured between the last business day of each respective year, which means that the change does not necessarily provide a correct picture of the average size of the stock of T-bill changes.

<sup>4</sup> See box on borrowing instruments and swaps.

## Borrowing instruments and swaps

Somewhat simplified, the guidelines for central government debt policy imply that the Debt Office shall achieve a given exposure in short-term and long-term borrowing, respectively, and between kronor and foreign currencies (in terms of a given pace of amortisation of foreign currency debt), respectively. These targets can be achieved by allocating government borrowing between T-bills, government bonds and foreign currency borrowing. The Debt Office also uses derivatives (mainly interest rate and currency swaps) to order to achieve the desired exposure.

In order to create a short-term interest rate exposure via the swap market, as a first step the Debt Office issues a bond in Swedish kronor. Then it carries out an *interest rate swap* in Swedish kronor, in which the Debt Office receives fixed interest and pays floating interest (Stockholm Interbank Offered Rate, STIBOR). The gain on this transaction is that the interest rate on the bond is lower than the interest rate that the Debt Office receives in the interest rate swap (the difference is called swap spread). Meanwhile the Debt Office pays a somewhat higher interest rate (STIBOR) than the T-bill interest rate. This borrowing technique leverages the central government's relative strength as a borrower in long maturities, enabling it to reduce its borrowing costs.

Creating foreign currency exposure via the swap market involves using the domestic bond market as a source of borrowing (*krona/swap borrowing*). First the Debt Office issues a bond, which is swapped to short-term interest (see above). Then it carries out a "basis swap", which

involves changing a floating interest rate in kronor for a floating interest rate in a foreign currency. Meanwhile the Debt Office buys the foreign currency in the spot market when it enters into the transaction and sells the foreign currency when closing it. The basis swap has the same maturity as the interest rate swap but interest payments are based on three- or six-month floating interest rates. In the basis swaps, the Debt Office receives floating STIBOR and pays floating interest in euro at the European Interbank Offer Rate (EURIBOR). Using this technique, the Debt Office can take advantage of the swap spread minus a small cost for implementing the swap. In principle, the borrowing cost is thus the floating EURIBOR rate minus the swap spread.

*Foreign currency borrowing* can thus be implemented as borrowing in a foreign currency (direct foreign currency borrowing) or via krona/swap borrowing. *Short-term borrowing* can be implemented by issuing T-bills or by first issuing a government bond and then carrying out an interest rate swap (synthetic bills).

In practice, the room for interest rate swaps is limited by the fact that the Debt Office is a large player in this market. This room can be used to replace T-bills or as a part of foreign currency borrowing. In the trade-off, the costs of direct foreign borrowing are important.

For an extended discussion on the Debt Office's use of swaps, see Holmlund, A. [2002], "Swaps in central government debt management", *Central Government Borrowing: Forecast and Analysis*, 2002:3, pp. 17-20.

► currency borrowing, will accordingly continue to be limited to an annual pace of approximately SEK 30 billion. If market conditions change, however, the actual scale may deviate from this estimate.

Swaps will be carried out at a relatively uniform pace during the year and at maturities that are cost effective.

## Inflation-linked debt

### Issue policy

#### *Unchanged pace of issues*

The demand for inflation-linked bonds has remained good. During 2004 to date, approximately SEK 11 billion, i.e. approximately SEK 1 billion per auction have been issued. However, demand has varied between issue dates.

The interest rate spread between nominal and inflation-linked bonds has increased slightly during the spring. Pricing is in line with the inflation target and a mark-up for the inflation risk premium, i.e. the insurance premium that investors pay for the protection against inflation that is offered by the inflation-linked bonds.

The Debt Office expects to continue to issue inflation-linked bonds at an annual pace of approximately SEK 20 billion. However, the growth of the market is difficult to assess and the annual pace only states an approximate estimation of what market conditions permit.

#### *Predictability with some flexibility*

Inflation-linked bonds are issued every other week. The auctions takes place on Thursdays in the weeks, although not all the weeks, that the Debt Office issues T-bills. The announced issue volumes are normally about the same size at each auction. However, larger deviations cannot be ruled out at times when market conditions are special, such as, for instance, on coupon maturity.

At times when demand is deemed good, the Debt Office normally uses flexible issue volumes. If the auction is carried out with flexible volumes, the volume being offered is announced as an interval. The lower interval limit corresponds to the offered issue volume. This flexibility means that the issue volume can be increased up to the upper interval limit. One precondition for increased volumes is that this can occur without significant impact on the interest rate, i.e. that the bid curve is relatively flat within the interval.

As the Debt Office has stated earlier it is natural to put more emphasis on transparency as the market for inflation-linked bonds develops. However, the use of flexibility in the auctions is still deemed to be justified.

Even if the issue volume does not vary so much from one auction to another, to some extent the Debt Office takes into account the prevailing demand situation and pricing picture. The choice of loans, issue mechanisms

and volume on individual issue dates are announced one week before the auction date after the Debt Office has gathered suggestions from primary dealers and investors. Both dealers and investors are welcome to pursue an ongoing dialogue with the Debt Office concerning inflation-linked bonds and to submit suggestions before individual issues.

### Current loans

#### *Issue candidates*

The loans 3105, 3102 and 3104 will be issued during 2004 and 2005 (see chart for information on maturity years and outstanding volumes). Loan 3101 is too short to be included among the loans in which issues are made, although the loan is currently deemed to have good market prospects and be able to contribute liquidity and the pricing picture in the short-term segment of the inflation-linked interest curve.

#### *New inflation-linked bond and exchanges of 3101*

The Debt Office is planning to issue a new inflation-linked bond during 2005 (loan 3106) maturing on April 12, 2012.<sup>5</sup> The new loan is being introduced with an issue and exchanges for 3101. A phasing-out plan for loan 3101 has been discussed in *Central Government Borrowing 2003: 2 and 2003:3*. The idea is for investors to be able to buy loan 3106 at switch auctions with yearly maximized volumes. In this way, phasing-out of the loan can take place in a predictable way. A more detailed phasing-out plan will be announced at a later date.

## Foreign currency borrowing

At present, the Debt Office is amortising foreign currency at an annual pace of SEK 25 billion.

The borrowing requirement in foreign currencies consists of the difference between maturing loans and the pace of amortisation. During 2004 and 2005, loans, including exchange rate differences, equivalent to SEK 37 and 55 billion respectively, will fall due. In order to achieve the targeted pace of amortisation, the Debt Office thus needs to borrow the equivalent of SEK 11 billion and SEK 30 billion respectively in foreign currencies during 2004 and 2005. The calculation of the foreign currency borrowing for 2004 is unchanged compared with the previous forecast. For 2005, the foreign currency borrowing is increasing due to the high level of maturing of foreign currency loans.

<sup>5</sup> Note that the maturity date is not 1 December as for previous inflation-linked bonds. See the box on page 8 for maturity dates for bonds.

**Foreign currency borrowing in 2004 and 2005, SEK billion**

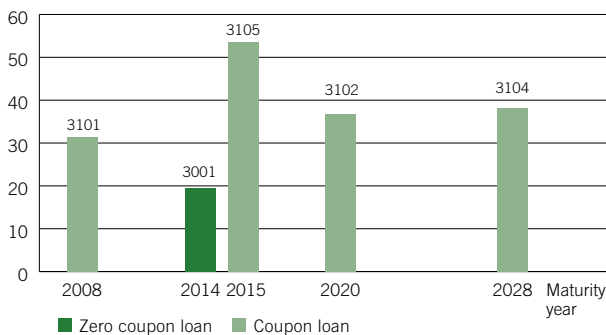
	2004	2005
Gross foreign currency borrowing requirement	11	30
Benchmark for foreign currency amortisation	-25	-25
Maturing foreign currency loans <sup>1</sup>	22	43
Maturing foreign currency swaps	11	18
Exchange rate differences <sup>2</sup>	4	-6
Gross foreign currency borrowing	11	30
Direct foreign currency borrowing <sup>1</sup>	9	15
Gross foreign currency swaps	2	15

<sup>1</sup> Direct foreign currency loans in the spot market, valued at current exchange rates.

<sup>2</sup> Forecast for the exchange rate differences which will be realised

**Inflation-linked government bonds**

SEK billion



Foreign currency loans can be funded by issuing government bonds, which are swapped in foreign currency exposure (krona/swap borrowing) or by means of direct borrowing in foreign currencies. The allocation of foreign currency loans between direct foreign currency borrowing and krona/swap borrowing will depend on what interest rate conditions can be achieved.

So far during 2004, the Debt Office has issued direct foreign currency loans equivalent to over SEK 6 billion. The remaining borrowing requirement during the year and for 2005 has been allocated in a standardised way evenly between direct foreign currency borrowing and SEK/swap borrowing. The actual allocation may, however, end up deviating substantially from this scenario.

**Summary**

The Debt Office will keep its issue volumes of nominal government bonds unchanged at SEK 4 billion per auction.

A new ten-year bond will be introduced on September 1, maturing on August 12, 2015.

During the year, issues will be allocated relatively evenly among the two, five, ten and sixteen-year loans – with a certain emphasis on the three longer maturities. During 2005, issues are mainly planned in the five and ten-year segments.

The Debt Office will carry out interest rate swaps at an annual pace of about SEK 30 billion in 2004 and 2005. Most of these will replace borrowing in T-bills.

The demand for inflation-linked bonds has remained good during 2004. The Debt Office estimates that there will be continued prerequisites for issuing inflation-linked bonds at about the same annual pace, i.e. approximately SEK 20 billion, as previously. A new seven-year inflation-linked bond maturing in 2012 will be introduced in autumn 2005.

The Debt Office amortises the foreign currency debt at an annual pace of SEK 25 billion. This year, foreign currency borrowing will amount to an estimated SEK 11 billion and next year to SEK 30 billion.

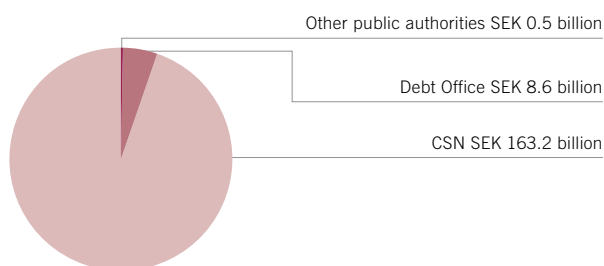
## The lending of the state should be regulated

*The state's lending with a credit risk today is in excess of SEK 170 billion. Even so the lending is in principle unregulated. This may lead to the state granting loans on terms that do not reflect the risk to the state. The absence of regulation may also lead to ambiguities regarding how any credit losses should be handled in the state budget. Should the losses be charged to an appropriation under the budget expenditure ceiling or not? Regulated lending, with clear requirements of valuation and pricing, is important in order for Parliament and the Government to be able to compare the costs of the lending with the cost of other activities such as the justice system and education. In addition it is important that state loans and state guarantees be treated in the same manner since the state in each case is taking the same risk. In spite of this, only the granting of guarantees is regulated in the Budget Act. The Ministry of Finance has recently proposed changes in the Budget Act. The proposal however lacks rules for the valuation and pricing of government loans with credit risk.*

The Swedish National Debt Office is one of 27 public authorities charged with the administration of the state's lending. The largest lender by far is the Swedish National Board of Student Aid (CSN) which grants student loans to students. As of year-end, the CSN's lending amounted to in excess of SEK 160 billion (see the diagram below). The Debt Office's lending with a credit risk at the same date amounted to almost SEK 9 billion. Other lending authorities are the (21) county administrative boards, the Board of Energy, the Legal, Financial and Administrative Services Agency, the Swedish Business Development Agency (Nutek) and the Swedish International Development Cooperation Agency (Sida). Their lending – in aggregate half a billion – is however small by comparison.

### The state's lending with a credit risk

The total lending with a credit risk of SEK 172.3 billion December 31, 2003



*Note: "Other public authorities" comprise the (21) county administrative boards, the Board of Energy, the Legal, Financial and Administrative Services Agency, the Swedish Business Development Agency (Nutek) and the Swedish International Development Cooperation Agency (Sida).*

## Appropriation financing or loan from the Debt Office

The majority of the state's lending is financed through loans in the market via the Swedish National Debt Office. Only a small part is financed through appropriations in the state budget. This applies, e.g., to the county administrative boards' loans to the fishing and agricultural industries and the Swedish International Development Cooperation Agency's (Sida) foreign aid credits.

The difference between the two financing means chiefly concerns the manner in which these are handled in the state budget. Credits financed by loans from the Debt Office are outside of the budget expenditure ceiling in the state budget, while loans financed by grants are inside.

In both cases, however, the state's borrowing needs increase, and thereby the national debt, in connection with the granting of the loans. This is a result of disbursements from the state affecting the borrowing needs regardless of whether they are made from funds under an appropriation or lending via the Debt Office.

## Loans with and without credit risk

The Swedish National Debt Office's lending can be divided into two categories: lending with and without credit risk. The first category comprises loans that are granted to finance state investments through private and state-owned companies. This frequently applies to great infrastructure investments. Examples of such loans are the loans to the Svensk-Danska Broförbindelsen AB (Svedab) for the construction of the Swedish connecting links to the Öresund bridge and to A-Train AB for the construction of the Arlanda airport rail connection.

The category loans without credit risk comprises loans to public authorities. Parliament has e.g., decided that part of the investments of the National Road Administration and the National Rail Administration shall be financed through loans from the Debt Office. This lending entails by definition no credit risk since the National Road and Rail Administrations are public authorities and thereby a part of the state.

Parliament may also support certain activities by lending through appropriations in the state budget. Also this lending is associated with credit risk. The difference compared with lending via loans from the Debt Office is that the state's costs, if any, of credit losses are already covered since the loans have been financed through appropriations in the state budget. This protects the state from unexpected costs in the future.

## Guarantees are equally risky

Parliament may also decide to grant state guarantees. Of the Swedish National Debt Office's guarantee portfolio of SEK 164 billion, SEK 58 billion is comprised of credit guarantees. A state credit guarantee means that it is risk free for the lender, e.g., a bank, to provide loans to an enterprise. The credit risk is instead transferred to the state.

Regardless of whether the state issues a credit guarantee or provides a loan with a credit risk, the state takes the same risk. The difference is merely that the financing of the loan in the first case is handled by a bank and in the other case by the state via the Debt Office. Even though the risk is the same, only the granting of guarantees is regulated in the Budget Act; see the fact box on the guarantee model.

In addition to the Budget Act, the granting of guarantees is regulated by the Guarantee Ordinance and the EU's rules on state subsidies rules; see fact box below on the EU's rules on state subsidies. The EU Commission has in an official notice clarified how the state subsidies rules are to be applied to state guarantees. There is no corresponding clarification for state lending, except for the legal precedents that exist in the area. The absence of clear guidelines for how the EU's rules on state subsidies are to be applied, and the absence of regulation in the Budget Act, make the rules regarding state loans with a credit risk unclear.

## Same rules for credit as for guarantee

The Swedish National Debt Office is of the opinion that the same principles that apply to guarantees should also be applied to state loans with a credit risk. The function of the guarantee model, with inter alia risk reflecting fees, means that the state is reserving funds to cover future losses. The absence of corresponding rules for the state's lending leads to ambiguities regarding the handling of credit losses in the state budget. Should losses be charged against an appropriation under the state budget expenditure ceiling or not? Future credit losses could in such case displace other state activities, which in turn could infringe the freedom of action for future parliaments.

The absence of rules for the state's lending is not merely a budget control problem over time. It is also a budget control problem among different activities. Regulated lending is important in order for Parliament and the Government to obtain a correct view of the costs associated with different activities. With the right valuation and pricing of the lending, more loans to, e.g., the Botnia track could in a clear way be compared with additional resources to, e.g., education and defense.

It is furthermore important that the state's lending and the state's granting of guarantees are regulated in a similar manner in order for Parliament to correctly compare the different financing forms to each other. Otherwise, lending might erroneously appear as a less expensive financing form than state guarantees.

### The guarantee model

Guarantees are from 1 January 1997 regulated in the Budget Act (1996:1059). A state guarantee may be granted only following a decision by Parliament. Parliament shall state the purpose and, normally, a maximum amount for the guarantee. The Budget Act also states that a fee corresponding to the state's financial risk and other costs for the undertaking shall be charged unless otherwise decided by Parliament.

The fee shall be paid by the company which is granted the guarantee or, if Parliament decides to subsidize the fee, with money from the state budget. The fees are accounted for in a special account, to be used in case of future credit losses. The main purpose of the fees is to ensure that the state has resources to cover future costs for any fulfillment of the guarantees.

### The EU's rules on state subsidies

The EU Commission states in an official notice from 2000 how the EU's rules on state subsidies are to be applied to state guarantees. For activities where state subsidies is not permitted, the following requirements must be fulfilled in order for a guarantee not to be considered as a state subsidy:

- The borrower shall have a sound financial position.
- The borrower shall in principle be able to obtain a loan at market terms on the financial markets without state intervention.
- The guarantee may not cover more than 80 per cent of the outstanding loan or the financial obligation. The guarantee must be tied to a financial transaction with a maximum amount and limited duration.
- A market price shall be paid for the guarantee.

If there is any uncertainty regarding whether the guarantee may constitute state subsidies, this shall be notified to the Commission.

In its review of the Debt Office's annual accounts for 2003, the Swedish National Audit Office notes that the expected loss for loans with a credit risk shall be accounted for. The Debt Office will therefore in the next semiannual accounts account for the loans accordingly. This however brings us back to the issue of how the cost of any credit losses should be handled in the state budget and underscores at the same time the need for clear guidelines for the aggregate lending of the state.

## The Debt Office's proposed regulation

The Swedish National Debt Office proposed for the first time to the Government in January 2000 a new model for handling of state lending with a credit risk. The proposal is in line with the principles and rules that were determined for ▶

► state guarantees in the budget bill for the year 1997. The proposal in certain parts constitutes a formal adoption of the practice that has been established for the Debt Office's pricing for lending with a credit risk. In brief, the proposal comprises the following:

- State lending should be regulated in the Budget Act.
- The number of lending authorities should be limited to three: CSN, Sida and the Debt Office. The authorities shall value and price the credit risks associated with their lending within each respective area of responsibility.
- Fees that reflect the risk should be charged and accounted for in a special account in order to cover future credit losses.
- A Credit Ordinance, with approximately the same contents as the current Guarantee Ordinance, should be passed.
- The risk associated with credits that have already been granted should be valued and priced in order for these credits to be able to be handled in the new system.

In order to achieve a uniform and efficient handling of the state's lending it is important that similar rules apply to all lending public authorities. This is not in the least true with respect to CSN, which is by far the largest lender. CSN certainly does make annual risk assessments for future credit losses, but it does not accrue funds therefor. Instead, the state budget and the scope under the budget expenditure ceiling are charged only after the credit losses have occurred. This entails a risk of irregularities in the appropriations for student support, since the credit losses may vary from year to year.

The Ministry of Finance recently made a proposal for amendments of the Budget Act. The Debt Office notes in its evaluation of the proposal that the proposal lacks rules for valuation and pricing of state lending with a credit risk.

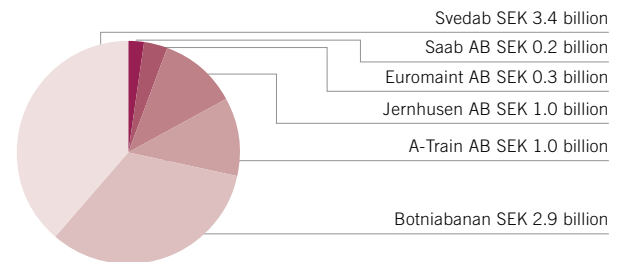
## The Debt Office's lending practice

The Swedish National Debt Office's lending with a credit risk amounts to a little less than SEK 9 billion. For half of these loans, the Debt Office has valued and priced the risks according to the same principles as for the Debt Office's guarantees. The Debt Office has also charged credit risk fees for these loans. This applies to credits to certain of the spun-off companies in the business authority Statens Järnvägar (Swedish National Railroads), and the lending to Botniabanan AB. The credit risk fee for the Botniabanan loans is however set to zero, since amortizations will be made out of the state budget through a so-called order authorization.

The Debt Office has also lent money to Saab AB in order to partially finance the company's development costs in connection with the aircraft project Airbus 380. Additionally, the Debt Office has lent SEK one billion to A-Train AB for the construction of the high-speed rail connection to Arlanda airport. Both these loans are loans with special terms, where the repayments are dependent on the sales result and the traffic development. For the loan to Saab AB, the Debt Office

## The Swedish National Debt Office's lending with a credit risk per lender

The total lending with a credit risk of SEK 8.6 billion December 31, 2003



has valued the risk. The fee is partially subsidized from the state budget, while Saab AB pays the remainder.

The Debt Office's loan portfolio also contains lending to Svedab, which is the Swedish parent company of the Öresund Bridge Consortium. Svedab has the right to borrow from the Debt Office for the Swedish connecting links to the bridge. The company furthermore has a right to borrow its interest costs without amortization until the Öresund Bridge Consortium is turning a profit and the Consortium's loans have been repaid. Thereafter, Svedab's loans from the Debt Office shall be repaid through the profits of the Consortium. According to the company's annual accounts for 2003, the loans are expected to be repaid around 2050. In the coming years, Svedab's loans from the Debt Office may thus grow to a very large amount. In worst case, it will never be possible to repay the loan if the Consortium's profits are small.

In the assessment of the Debt Office, the lending to Svedab and A-Train is associated with great uncertainty with respect to future repayment. The state has not reserved any funds for the credit risk it has assumed in connection with the lending to these companies. If there is no repayment of the loans, the increase of the national debt that the loans have contributed to will thus remain.

The lending to Jernhusen AB is another example of lending without full evaluation of the risk. Jernhusen owns real property that was formerly owned by the business authority Statens Järnvägar (Swedish National Railroads). The Government has decided that the risk fee shall constitute 0.75 per cent of the loan amount. If the fee were to reflect the actual risk, it would have been higher according to the assessment of the Debt Office. Jernhusen has the right to borrow SEK two billion from the Debt Office during 2004.

The example Jernhusen shows that for as long as the state's lending is unregulated, the state may grant loans on terms that do not reflect the state's risk. This may in the future lead to risks mounting in the state's balance sheet, where the failed repayment of loans may make the national debt greater than expected. In addition, it may erroneously make the lending seem as a less expensive financing form compared with guarantees.

*Sara Bergström, Deputy Chief Economist  
Christina Hamrén, Analyst*

## A new budget target for long-term sustainable central government finances

Following several years of a budget surplus the central government again has a need to borrow. The prospects for the public finances in both the short and long term are once again on the agenda for the financial political discussion. In the coming decades, the portion of working-age persons is going to decrease while the portion of elderly is expected to increase dramatically. Diminishing production and increasing costs for pensions, healthcare and care for the elderly will put pressure on the public finances. While the pension system has been designed to handle the demographic development, the central government's and counties' finances stand fairly naked before the coming demographic strains. One way to prepare the central government's finances for the coming demands is to implement a specific target for the central government's financial savings.

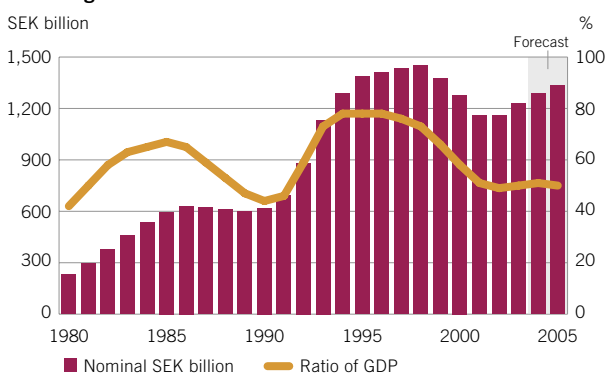
Current budget politics are aimed at two overall targets: the balance target for the financial savings of the public sector and the budget expenditure ceiling of the central government. These budget political targets stem from the profound economic and national financial crisis in the beginning of the 1990's. Never before in modern Swedish history have the public finances weakened so quickly and so greatly. For the public finances, the economic crisis resulted in much lower tax revenues while expenses increased. The budget deficits accelerated and reached their highest level of SEK 250 billion in 1993.

Between 1990 and 1994 the country's debt doubled from approximately SEK 600 to 1,300 billion. This resulted in the ratio between the central government debt and GDP increasing from 44 to 78 per cent. In the economic debate, this was characterized as a debt crisis and many analysts predicted a central government debt that could exceed 100 per cent of GDP within a few years if the economy did not improve or if drastic measures were not taken.

### Current budget political targets

In order to once again take control and regain confidence in the central government's finances the Government pro-

Central government debt in SEK billion and as ratio of GDP



Source: The Swedish National Debt Office and Statistics Sweden

posed, during the fall of 1994, a budget political target to stabilize the debt to GDP ratio by 1998. The following year a target was set to have the public finances balanced by 1998. A contributing factor to the discussion regarding the formulation of this target was Sweden's new membership in the EU. The EU's regulations state that the public financial deficit should not exceed 3 per cent of GDP and that the public debt should not exceed 60 per cent of GDP.

In the spring of 1997 the Government redefined the *balance target*. The new target aimed to attain a public finance surplus of 2 per cent of GDP on average over an economic cycle. The target would be attained through gradual adjustment. The balance target for 1999 was therefore set to 0.5 per cent of GDP and to 1.5 per cent for 2000. The target for 2000 was later raised to 2.0 per cent while the target for 2001 was raised to 2.5 per cent of GDP (see the table on page 16).

In order to gain better control over the central government budget process, a new legislative act was also passed – the Act on the Central Government Budget. The Budget Act, which came into force in 1997, aimed to tighten the budget process which at the time was relatively loose. Studies have shown that there is a strong correlation between the institutional framework for the budget process and the budget deficit and the central government debt level. In order to restrict the central government's total expenses and thereby limit the budget deficit, a *budget expenditure ceiling* was also introduced for the central government. The budget expenditure ceiling, which includes all the central government's fees including the old age pension system but excludes the interest on the central government debt, thereby became the second budget political target.

In order to prevent continuous deficits in the municipalities and counties, a balance requirement was introduced as of 2000. The balance requirement means that a deficit during one fiscal year shall be regulated by an equivalent surplus during the following years.

## ► The public finances significantly strengthened during the second half of the 1990's

The fears in the 1990's about the central government's financial crisis were not realized. Towards the second half of the 1990's the economy recovered. Together with an extensive reconstruction program equaling SEK 120–130 billion, the deficit decreased successively. The target of balancing the public finances in 1998 was exceeded by a wide margin (see the table below). The following years the public finances improved further, not in the least due to the high level of economic activity that took place prior to the new millennium and the extraordinary tax revenues resulting from the strong rise in the stock market.

### The public sector's financial savings 1997–2003

	1997	1998	1999	2000	2001	2002	2003
Actual	-1.0	1.9	2.3	5.1	2.9	-0.3	0.5
Target	-3.0	0.0	0.5	2.0	2.5	2.0	2.0
Difference	2.0	1.9	1.8	3.1	0.4	-2.3	-1.5

Source: National Accounts 2003

There were several original motives for the balance target. One was to lower the public sector's net debt in order to strengthen confidence in the Swedish economy.

Today the balance target aims mainly to create a buffer in order to meet coming demographic strains on the public welfare system. The balance target of 2 per cent is also seen as a relatively large margin to the limit on the stability pact, which states that public finances may not show a deficit greater than 3 per cent of GDP.

## How are the financial savings measured?

The balance target encompasses the entire public sector, in other words the central government, the municipalities and the old age pension system. Savings consists of the net of all the transactions that affect the public sector's wealth. The sale of an asset, for example, a state-owned company, does not however affect the financial savings since the asset is exchanged for money. Value fluctuations in assets and debts do not affect savings either. Statistics Sweden (SCB) is responsible for the administration of the national accounts in which the financial savings is calculated.

## How do the public finances look from an international perspective?

In order to put the Swedish public finances into perspective it is interesting to make an international comparison. Since the public sector is organized differently in various countries, it is not however always simple to make international compari-

sons. In Sweden the greater part of the pension savings is administered by the public sector, while in certain countries the larger part is administered in the private sector. Discussions are presently underway between the statistic unit of the EU, Eurostat, and the Swedish government regarding to what extent savings in the premium pension system shall be included in the Swedish public savings or not.<sup>1</sup>

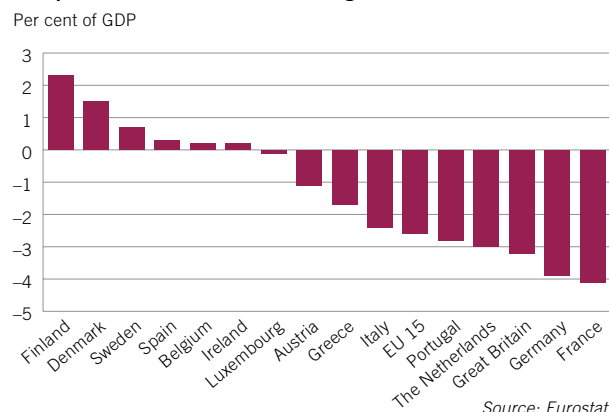
The balance that is most comparable between countries is the one that shows the savings for the entire consolidated public sector. Both the Swedish government's balance target and the target of the EU's stabilization and growth pact are based on this definition.

## Public finances in the EU countries (EU15)

The weak economy in the last few years has led to weakened public finances for the entire western world. On average the "old" EU countries accounted for a deficit in the public finances of 2.6 per cent of GDP for 2003. France and Germany have the largest deficits, both exceeding the lower limit of 3 per cent of GDP set by the EU's stability and growth pact. Finland is the country showing the largest surplus and Sweden is in third place (see the diagram below).

The economic crisis in the beginning of the 1990's led to a greater weakening of the public finances in Sweden than in the other EU countries. During the last five years, however, public finances in Sweden have performed better than the average of the EU countries.

### The public sector's financial savings EU15 – 2003



The public sector's debt ratio in relation to GDP amounted on the average to 64 per cent for the EU countries at the end of 2003. Italy, Greece and Belgium all have debt ratios amounting to more than 100 per cent of the country's GDP. Austria, Germany and France also have debt ratios exceeding the 60 per cent of GDP limit that has

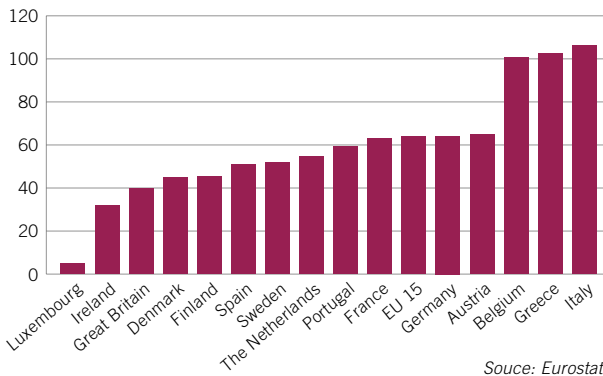
<sup>1</sup> The premium pension is currently included in the savings for the public sector. Eurostat has recently made a decision in principle whereby certain types of funded pension systems are not to be classified as included in the public sector in the national accounts. A change of the present classification would reduce the public savings in Sweden by approximately 0.5 per centage points per year.



been set as an upper limit by the EU stability and growth pact. The Swedish debt ratio was 52 per cent at the end of 2003, which places Sweden somewhat better than the average of the EU countries (see the the diagram below).

### The public sector's debt EU15 – 2003

Per cent of GDP



## The public finances of the new member countries in the EU

Among the ten new member countries to the EU, the Czech Republic and Malta have the highest surplus in the public finances for 2003. As to the debt ratio, Cyprus and Malta come in last with approximately 70 per cent. The Baltic countries have the lowest debt ratio; the debt ratio at the beginning of the year was between 6 and 22 per cent of GDP. In many respects the expansion has made the EU more heterogeneous.

## Demographic changes lead to great economic strains

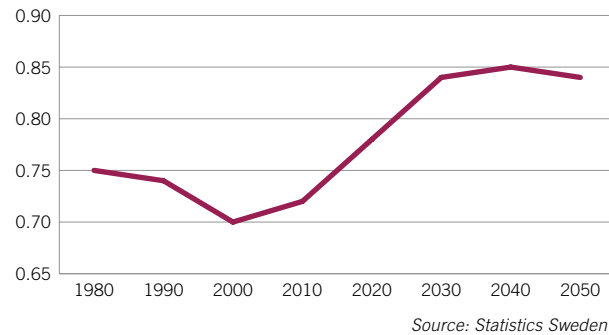
Sweden's public finances are relatively strong in relation to many of the EU countries. This will also hold true in the long term thanks to the pension reform. However, the public finances cannot only be seen in relation to other EU countries. It is also important to look ahead in time.

The Long-Term Survey of the Swedish Economy 2003/04 has reviewed the prospects for Sweden's public finances until 2020. The number of working-age persons is expected to decrease in Sweden as well as in several developed countries during the coming decades. The aging population will affect both the public revenues and the public expenses. The decreasing portion of the working-age population is expected to lead to lower salaried income and thus lower income tax per capita. At the same time it is assumed that an increasing portion of elderly will lead to increasing costs for pensioners, healthcare and elderly care. The diagram upper right clearly depicts how the so called support ratio will change from the current 0.70 to 0.84 in 25 years.<sup>2</sup>

<sup>2</sup> The support ratio is calculated as the number of persons of ages 0–19 and 65 and older divided by the number of persons of ages 20–64.

Thereafter, the ratio is expected to level out before it begins to decrease approximately 10 years later. In other words, 100 people of working age in 2030 will support 84 pensioners and children. Today 100 people of working age support 70 pensioners and children.

### Support ratio in Sweden between 1980 and 2050



The pension system is the part of the public finances that most tangibly will be affected by an increased quota of elderly. The new pension system has been designed to handle the developments in demographics. In the next few years, the savings in the old age pension system will amount to approximately 2 per cent of GDP which reflects today's favorable demographic conditions. The savings will successively worsen as the number of elderly increases and the pension expenditures rise.

The central government's and the municipalities' finances are less well prepared for the coming demographic changes if the public welfare systems are to be maintained at present levels. In addition, the Government is calculating, according to the economic spring bill, that the central government will need to borrow more than SEK 130 billion during the period 2004–2006. Translated into financial savings, this means that the central government's savings will be negative in amount of approximately 1–2 per cent of GDP each year until 2006. With respect to the municipal sector the Government is calculating that the balance requirement will be reached until 2006, which means that the financial savings of the municipalities will end up around zero.

### Financial savings in the public sector 2001–2006

	2001	2002	2003	2004	2005	2006
Central government	7.6	-1.7	-1.4	-1.7	-1.8	-1.1
Municipalities	-0.1	-0.6	-0.2	-0.1	0.3	0.1
Old age pension system	-4.6	2.0	2.0	2.0	2.1	2.0
Total financial savings in the public sector	2.9	-0.3	0.5	0.3	0.6	1.1

Source: The spring fiscal policy bill 2003/04:100 and the NIER.

- The Long-Term Survey recommends that the balance target should be maintained until at least 2015 at which time the demographic strains begin. In order to be able to handle the future strains it is important to decrease the central government debt during the next 10–15 years. This will reduce the interest-rate burden and create scope to allow the central government debt to grow again once the economical strains arise. The fact that the two per cent level will not be attained at any time during 2002–2006 also indicates that measures are needed (see the table page 17).

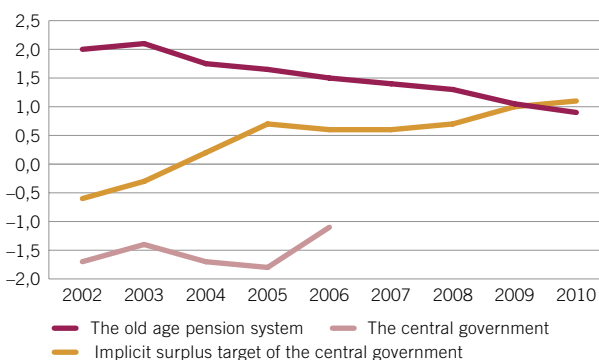
## A specific target for the central government's financial savings

The balance target, which covers the entire public sector, is motivated by the strains that demographics are expected to impose on the public finances. As previously stated, the public sector's financial savings is the figure that is most comparable in international studies. In regards to the running of the public sector's financial position given the coming demographic demands, this balance and its targets have on the other hand large shortcomings.

In Sweden the pension system is autonomous and the current surplus in the pension system is expected to cover future deficits. With today's balance target the central government can have weak finances for the next few years due to the surplus in the pension system, but will have to have stronger finances when the pension system weakens. In other words the central government's finances must be stronger in a situation where the demographic factors at the same time are expected to weaken the tax base.

### The central government's implicit balance target 2002–2010

Per cent of GDP



Source: The SNS Economic Policy Group's report and the National Social Insurance Board

The diagram above illustrates how large the central government's financial savings would need to be (the implicit balance target for the central government) in order to attain the balance target of 2 per cent of GDP each year until 2010. The balance target is valid for one economic cycle. The diagram is a simplification that does not take the economic cycles into account. The municipal sector finances are either

not included in the diagram since they are expected to be able to handle the balance requirement and thereby remain at about zero per cent in financial savings over time.

The lower curve shows the central government's financial savings since 2002 and their development until 2006. As the diagram shows, the financial savings of the central government will be 1–2 per cent below the level required in order to meet the 2-per cent balance target each year. The central government deficit during the last few years is only explained to a certain extent by the weak economic cycle.

The National Debt Office believes that the system with today's balance target sends the wrong signals to the political system. As long as the balance target is attained it indicates that the public finances are prepared for the coming demographic demands while in reality it is only the old age pension system that is well prepared.

In order to correct the problem the National Debt Office proposes that the current balance target be complemented with a separate target for the central government's financial savings. If such a target is followed the public sector, similar to the pension system, will build up a buffer (in the form of a lower central government debt) that enables the welfare system to easily maintain the current level without raising taxes.

Lower debt would also make the Government less sensitive to rising interest rates. It is worth noting that interest on the central government debt during the last couple of years has fallen from about SEK 100 billion to SEK 50 billion for the most part due to falling market interest rates. In order to handle possible interest rate hikes the debt ought to be lower in the future.

A minimum target for the central government's financial savings ought to be that these should at least be balanced over an economic cycle. It would also be possible to imagine a more ambitious target of a surplus of up to 1 per cent of GDP during an economic cycle. In order for the central government's financial savings to be balanced, it is required that the national finances are strengthened by 1–2 per cent of GDP per year. This corresponds to approximately SEK 25–50 billion.

Per Franzén, Analyst

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- Spring Fiscal Policy Bills for the years 1998–2004.
- Annual Accounts of the central government 2003, 2003/04:101.

## Market information

Source: The Swedish National Debt Office, unless otherwise stated

### Swedish government debt

#### Government bonds, outstanding volumes, May 31, 2004

Nominal bonds (nominal amount)			
Maturity date	Coupon %	Loan no.	SEK m
2006-04-20	3.50	1044	87,603
2007-08-15	8.00	1037	65,369
2008-05-05	6.50	1040	54,783
2009-01-28	5.00	1043	71,454
2009-12-01	5.00	1048	23,990
2011-03-15	5.25	1045	49,532
2012-10-08	5.50	1046	44,696
2014-05-05	6.75	1041	89,753
2020-12-01	5.00	1047	23,204
<b>Total benchmarks</b>			<b>510,384</b>
<b>Non-benchmarks</b>			<b>23,648</b>

#### T-bills, outstanding volumes, May 31, 2004

Maturity date (nominal amount)	SEK m
2004-06-16	74,024
2004-07-21	20,517
2004-08-18	17,517
2004-09-19	62,712
2004-12-23	47,706
2005-03-16	45,208
2005-06-15	30,205
<b>Total Treasury bills</b>	<b>297,889</b>

#### Inflation-linked bonds (outstanding amount), May 31, 2004

Maturity date	Coupon %	Loan no.	SEK m
2008-12-01	4.00	3101	31,099
2014-04-01	–	3001	19,374
2015-12-01	3.50	3105	53,484
2020-12-01	4.00	3102	36,786
2028-12-01	3.50	3103	3
2028-12-01	3.50	3104	38,142
<b>Total inflation-linked bonds</b>			<b>178,889</b>

#### Rating

	Debt in SEK	Foreign currency debt
Moody's	Aaa	Aaa
Standard & Poor's	AAA	AAA

#### Government bonds, auction dates

Nominal bonds		
Announcement date	Auction date	Settlement date
2004-06-23	2004-06-30	2004-07-05
2004-07-28	2004-08-04	2004-08-09
2004-08-11	2004-08-18	2004-08-23
2004-08-25	2004-09-01	2004-09-06
2004-09-08	2004-09-15	2004-09-20
2004-09-22	2004-09-29	2004-10-04
2004-10-06	2004-10-13	2004-10-18
2004-10-20	2004-10-27	2004-11-01
2004-11-03	2004-11-10	2004-11-15
2004-11-17	2004-11-24	2004-11-29
2004-12-01	2004-12-08	2004-12-13

#### T-bills, auction dates

Announcement date	Auction date	Settlement date
2004-06-16	2004-06-23	2004-06-28
2004-06-30	2004-07-07	2004-07-09
2004-07-21	2004-07-28	2004-07-30
2004-08-04	2004-08-11	2004-08-13
2004-08-18	2004-08-25	2004-08-27
2004-09-01	2004-09-08	2004-09-10
2004-09-15	2004-09-22	2004-09-24
2004-09-29	2004-10-06	2004-10-08
2004-10-13	2004-10-20	2004-10-22
2004-10-27	2004-11-03	2004-11-05
2004-11-10	2004-11-17	2004-11-19
2004-11-24	2004-12-01	2004-12-03
2004-12-08	2004-12-15	2004-12-17

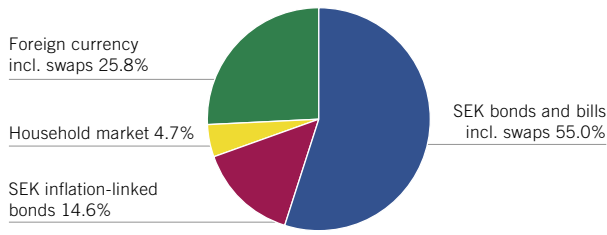
#### Inflation-linked bonds

Announcement date	Auction date	Settlement date
2004-08-19	2004-08-26	2004-08-31
2004-09-02	2004-09-09	2004-09-14
2004-09-16	2004-09-23	2004-09-28
2004-09-30	2004-10-07	2004-10-12
2004-10-14	2004-10-21	2004-10-26
2004-10-28	2004-11-04	2004-11-09
2004-11-11	2004-11-18	2004-11-23
2004-11-25	2004-12-02	2004-12-07
2004-12-09	2004-12-16	2004-12-21

**Debt structure**

Total debt 1,228 SEK billion

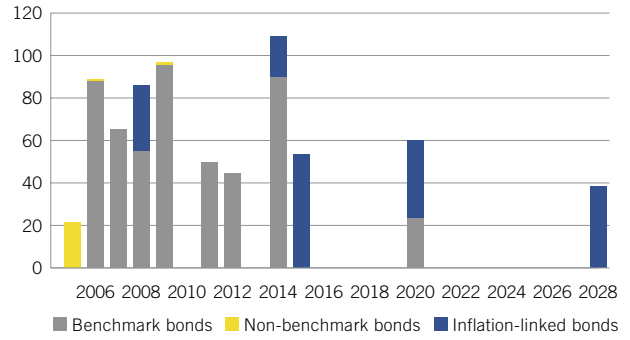
May 31, 2004



**Maturity profile, SEK nominal and inflation-linked bonds**

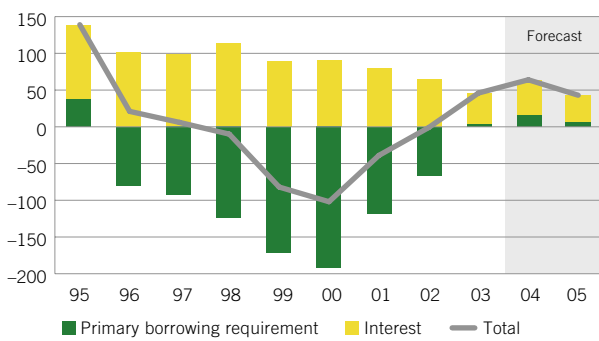
SEK billion

May 31, 2004



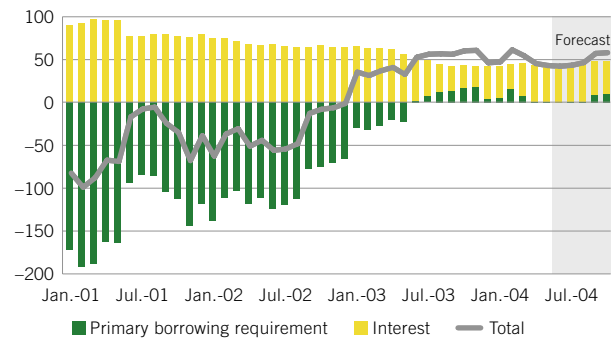
**Central government borrowing requirement, 1995–2005**

SEK billion



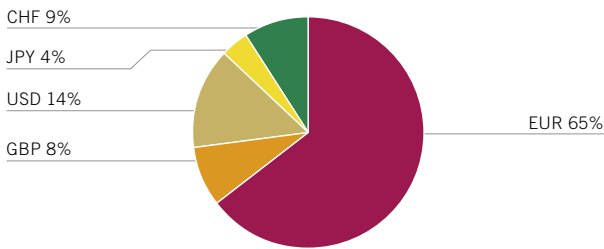
**Swedish government borrowing requirement, 12 months**

SEK billion



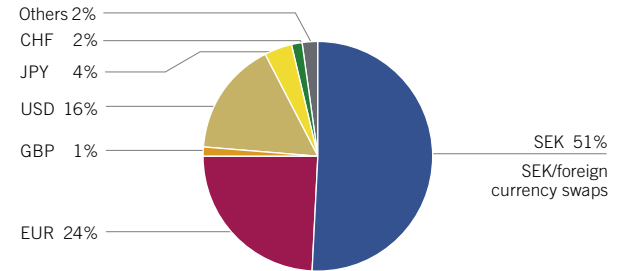
**Foreign currency exposure, incl. derivatives**

May 31, 2004



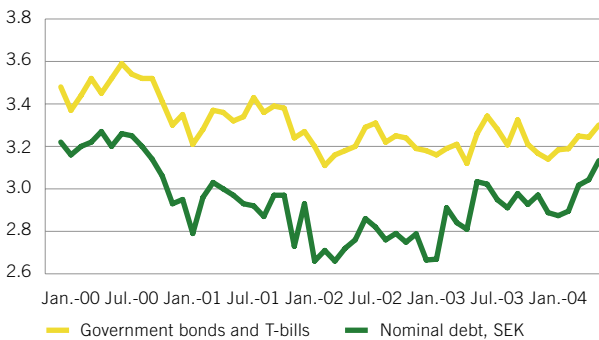
**Funding in foreign currencies**

May 31, 2004



**Duration of nominal debt**

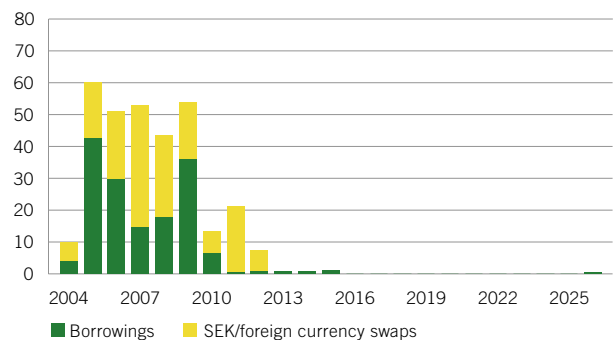
Years



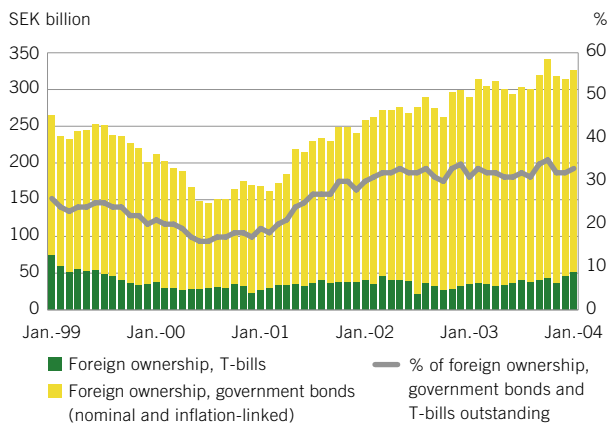
**Maturity profile, foreign currency loans excl. callable bonds**

SEK billion

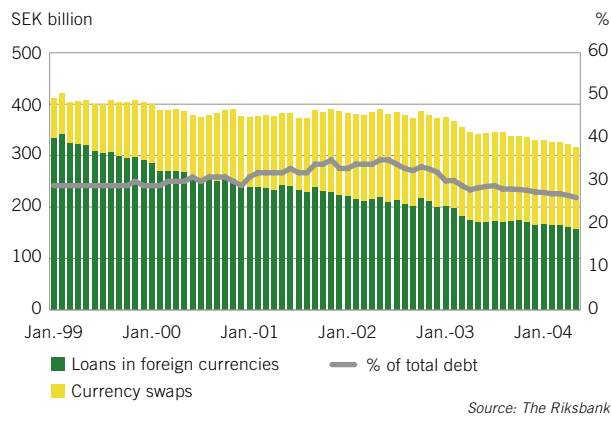
May 31, 2004



### Foreign ownership of government bonds and T-bills

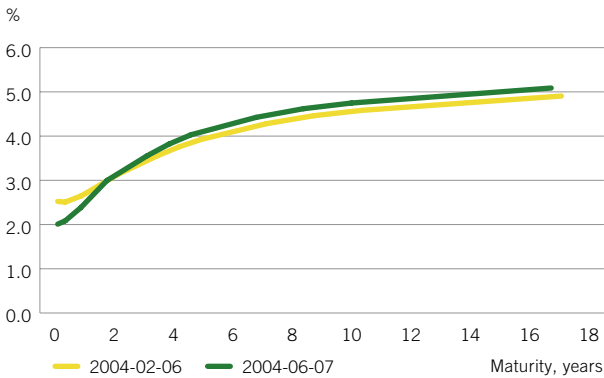


### Central government debt exposure in foreign currencies

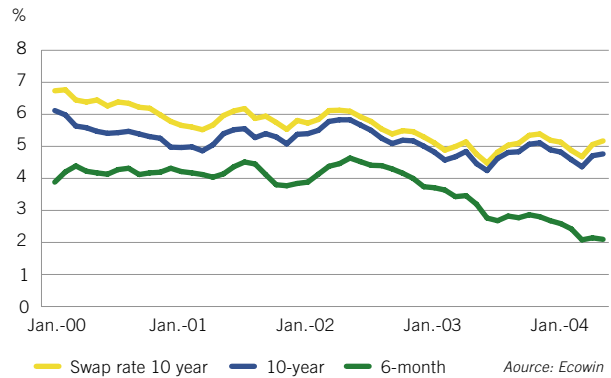


**Financial markets** All values up to May 31, 2004

**Yield curve, Swedish government securities**



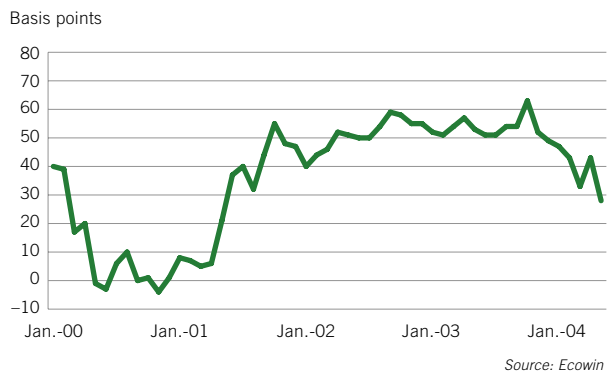
**Interest rate developments**



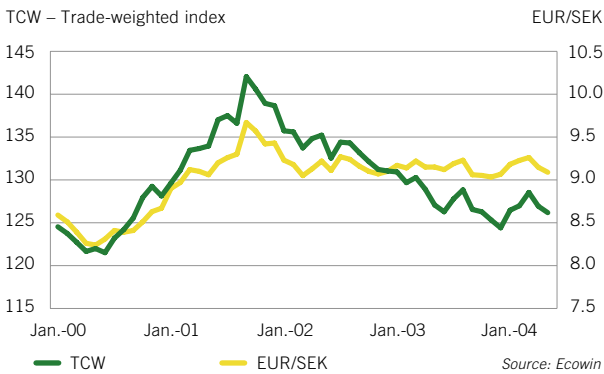
**Break-even inflation**



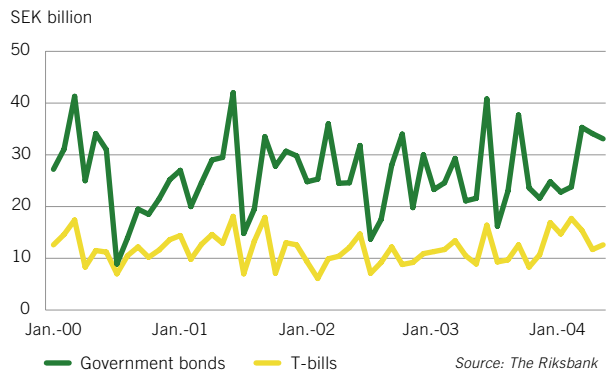
**Interest rate spread vs Germany - 10-year**



**Historical exchange rates**

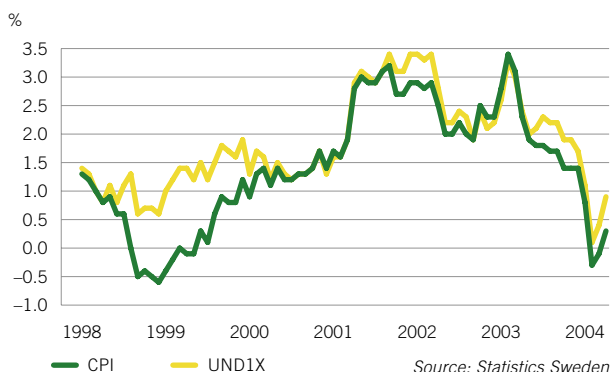


**Trading volume, Swedish government securities**

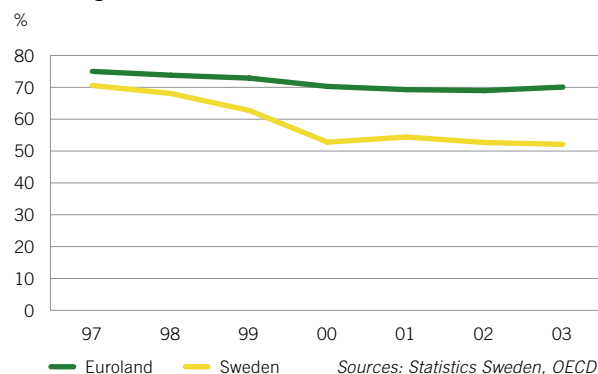


## Swedish economy

### Inflation indexes: UND1X and CPI in Sweden 1998–2004



### General government debt in relation to GDP



### National accounts

Percentage change	2002	2003	2004	2005		
Supply and demand						
Gross domestic product <sup>1</sup>	2.1	1.6	2.5	2.6		
Imports	-1.9	5.4	5.9	7.3		
Household consumption expenditure	1.4	2.0	2.6	3.0		
Government consumption expenditure	3.2	0.7	1.0	0.4		
Gross fixed capital formation	-3.0	-2.0	1.4	6.4		
Stock building	-0.2	0.2	-0.1	0.0		
Exports	1.2	5.9	6.7	6.1		
Selected statistics	Dec.-03	Apr.-04	2002	2003	2004	2005
CPI, year-on-year		0.3	2.3	1.4	0.4	2.1
Unemployment rate		5.4	4.0	4.9	5.6	5.3
Current account	7.0		5.1	5.5	6.0	5.9

<sup>1</sup> SEK 2,347 billion (current prices 2002).

Sources: Statistics Sweden, The Riksbank; forecasts: National Institute of Economic Research.

## Primary dealers

	Telephone	Reuter-page
ABN Amro Bank NV	+46-8-506 155 00	PMAA
Danske Consensus	+46-8-568 808 44	PMCO
E Öhman J:or Fondkommission AB	+46-8-679 22 00	PMOR
FöreningsSparbanken	+46-8-700 99 00	PMBF
Nordea	+45-33-33 17 58	PMUB
SEB	+46-8-506 23 151	PMSE
Svenska Handelsbanken AB (publ)	+46-8-463 46 50	PMHD

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The next issue of *Central Government Borrowing: Forecast and Analysis* will be published on Wednesday, October 27, 2004, at 9.30 am.

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Active management of the foreign currency debt – an asset on the liability side	<i>Lars Boman</i>	2004:1
New risk indicator for central government debt – Cost-at-Risk	<i>Anders Holmlund</i>	2004:1
The inflation-linked market is growing – Italy is now issuing inflation-linked bonds		2003:3
Strategic EUR/USD position closed – foreign currency- and interest gain of 4.5 billion		2003:3
Market development work in Sweden and a few other European countries	<i>Anders Holmlund</i>	2003:3
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Analysis of foreign currency debt structure	<i>Magnus Andersson and Lars Andrén</i>	2003:1
Borrowing and funding during 2002		2003:1
How central government debt is funded	<i>Thomas Olofsson</i>	2002:3
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