

# CENTRAL GOVERNMENT BORROWING FORECAST AND ANALYSIS



# 2006:2

## BORROWING REQUIREMENT

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THE SWEDISH NATIONAL DEBT OFFICE, 21 JUNE 2006 CENTRAL GOVERNMENT BORROWING – FORECAST AND ANALYSIS 2006:2

# DON'T RELY ON THE SURPLUS

In this report, the central government net borrowing requirement for 2006 is estimated at SEK 5 billion, an increase of SEK 21 billion compared with our forecast in March. This is due to the Premium Pension Authority (PPM) moving forward payment of premium pension funds from January 2007 to December 2006. There will therefore be two payments this year – one in January and one in December. Without this change, the net borrowing requirement would have been negative and the estimated budget deficit instead a surplus of SEK 20 billion. There will be no effect in 2007 due to the changed payment routines at PPM. The net borrowing requirement will be negative next year since we expect a budget surplus of SEK 8 billion.

The shift from deficit to surplus in central government finances follows on from the very strong economic performance which has led to higher corporate profits, larger capital income and now an increase in employment. However, we regard the surpluses in central government finances as rather small bearing in mind that several of the factors that have increased tax revenue recently are of a temporary nature. In addition, there will eventually be factors that exert upward pressure on central government expenditure. There is every reason therefore to warn about relying on today's improved central government finances.

The increase in the borrowing requirement in 2006 entails a temporary increase in funding in T-bills. Nominal government bonds continue to be issued at SEK 3 billion per auction and borrowing in inflation-linked bonds will take place at an annual pace of SEK 5–10 billion. Foreign currency borrowing is estimated at SEK 44 billion.

During the spring, we have noted a great interest in how the Debt Office would deal with larger surpluses, for instance in connection with privatisations. One probable cause of this interest is the problems that arose in connection with the partial privatisation of Telia six years ago. The buybacks that took place then had effects that led to direct additional costs for the state, and which created uncertainty and volatility in the finance market.

Experiences from this period and, to some extent, changed conditions mean, as shown by an article in this report that we are well prepared to cope with larger surpluses even if these entail substantial amounts of income in a short time.

Bo Lundgren Director General The Swedish National Debt Office



# CENTRAL GOVERNMENT BORROWING REQUIREMENT

Our basic view of the future development for government finances is substantially unchanged. The annual figure for the central government borrowing requirement in 2006 is increasing, however, due to a one-off effect of SEK 25 billion, when the Premium Pension Authority (PPM) brings forward payment of pension rights from January 2007 to December 2006. This change has a marginal impact on the funding of central government debt since it only involves a payment being shifted from one month to another. The new forecast for the borrowing requirement in 2006 is SEK 5 billion. For 2007, we calculate a borrowing requirement of SEK –8 billion, i.e. a budget surplus.



## Figure 1. CENTRAL GOVERNMENT BORROWING REQUIREMENT, 1998–2007

#### **ANNUAL FORECAST FOR 2006**

We expect a borrowing requirement of SEK 5 billion in 2006 compared with SEK –16 billion in our previous forecast. From the perspective of the budget balance, we are thus moving from a budget surplus to a deficit, despite the fact that we actually believe in a slight strengthening of central government finances. The reason for the increase is the Premium Pension Authority bringing forward payment of pension rights, which raises the borrowing requirement with a one-off effect of SEK 25 billion. However,

Table 1.	CENTRAL	GOVERNMENT	BORROWI	ING REQL	JIREMENT AND
	CENTRAL	GOVERNMENT	DEBT, 200	05-2007,	SEK BILLION

	2005	Forecast 2006	Forecast 2007
Primary borrowing requirement Interest payments on debt	-47 33	-45 50	-46 38
Net borrowing requirement Debt adjustments Re-evaluation, foreign	-14 43	5 –5	-8 0
currency loans etc. Short-term investments	29 22	-11 -22	0 0
Change in central government debt	51	-21	-8
Debt at year-end <sup>1</sup>	1,309	1,288	1,279

<sup>1</sup> Non-consolidated debt.

this is of little significance for funding of the central government debt since it only involves moving a payment from one month to another. Adjusted for the PPM payment, our new forecast for the borrowing requirement would have meant a reduction of the borrowing requirement from SEK –16 billion to SEK –20 billion (i.e. a larger budget surplus), despite interest payments on central government debt increasing by SEK 5 billion.

#### The primary borrowing requirement

The primary borrowing requirement (all state payments excluding interest on central government debt) are being revised upwards by SEK 16 billion from SEK –61 to –45 billion compared with the previous forecast. The shifting of the payment from the PPM increases the primary borrowing requirement by SEK 25 billion which is described in more detail under "net lending" below. Other changes in the forecast entail a reduction of the borrowing requirement by SEK 9 billion.

Table 2. PRIMARY BORROWING REQUIREMENT 2006, CHANGE FROM PREVIOUS FORECAST, SEK BILLION  $^{\rm 1}$ 

Net taxes	-6
Dividend on state-owned shares	-4
Other income	1
Expenditure	4
Net lending, PPM	25
Net lending, other	-4
Total	16

<sup>1</sup> The amounts state the effect on the borrowing requirement. Thus, for instance, "Taxes –6" means that revenue is expected to be higher.

The monthly outcomes for the central government borrowing requirement have been rather stronger than expected since in February. Dividends from state-owned companies have been higher and net lending to agencies and state-owned companies lower. However, these are mostly deviations which are not considered to have any effect during the remaining months of the year. More important for the continued development of the borrowing



requirement is that the forecast deviations for tax revenue and current disbursements have been small. We therefore do not see any reasons for changing the forecast for the rest of the year to any great extent, even if the borrowing requirement to date has been rather less than estimated.

We are making a relatively small adjustment of tax revenue of SEK 6 billion for 2006. It is primarily corporate taxes that are expected to be rather higher than before.

The labour market has started to improve leading to higher employment and more hours worked. This means that the wages bill, which is the most important tax base will increase sharply during the year. Private consumption has also started to accelerate which increases central government tax revenue. However, we anticipated this development in the March forecast.

Dividends from state-owned companies have increased by SEK 4 billion compared with the previous forecast. The largest part of the deviation is explained by the dividend from Venantius AB being considerably larger than expected.

We estimate that central government expenditure will be SEK 4 billion higher than before in 2006. This is due to new items of expenditure which were presented in the Government's Spring Fiscal Policy Bill.

The Debt Office's net lending to central government agencies, public enterprises and state-owned companies is estimated at SEK 35 billion, which is SEK 21 billion more than in the previous forecast. In our previous forecast, we wrote that the Premium Pension Authority was considering bringing forward payment of pension rights of SEK 25 billion from January 2007 to December 2006. We considered then that it was uncertain if this change would take place and therefore decided to wait for a more certain decision. We have now received this decision which means a one-off effect on the borrowing requirement for 2006 since two payments of pension rights are being made this year. One payment was made in January for pension rights in 2004 and the next payment will thus be made in December for pension rights for 2005. It is assumed that payment in future years will also be brought forward from January to December. Payment for 2007 will be brought forward from January 2008 to December 2007, which means that the total borrowing requirement for 2007 will not be affected. This has only marginal significance for funding of central government debt since it is only a matter of shifting a payment from one month to another, even if this takes place over the turn of a year.

Remaining net lending is being revised downwards by SEK 4 billion. This is explained by unexpectedly low lending combined with amortisation from a number of agencies during the spring.

Interest payments on the central government debt Interest payments are expected to be SEK 50 billion, which is SEK 5 billion more than in the previous forecast. The main explanation is that exchange rate losses are calculated as being SEK 3 billion larger. This is due to the strengthening of the euro against the dollar. The Debt Office adjusts the foreign currency debt towards a particular distribution among different currencies by using derivatives. These derivatives have short maturities and there can therefore be large exchange gains or losses in the short term. However, we often have counterposing positions in the underlying loans. In this case, this means that we will make a corresponding currency gain when the loans mature. It is thus purely a matter of accrual.

Other changes in relation to the previous forecast are explained by our changing our issuance plans of bonds since the last forecast, which leads to lower premiums on issue.

#### **ANNUAL FORECAST FOR 2007**

The Debt Office's forecast for 2007 indicates a borrowing requirement of SEK -8 billion (i.e. a budget surplus). This is a reduction of the borrowing requirement of SEK 2 billion compared with the previous forecast. Rising tax and dividend income compensate for some new expenditure in the Spring Fiscal Policy Bill. The basic assumptions on the development of central government finances that we made in March are therefore being retained. It is assumed that there will continue to be a high level of economic activity with rising employment and consumption. Corporate taxes are expected to be somewhat higher than in our previous forecast, although the strong rate of increase that we have seen in recent years is expected to abate. Interest payments on the central government debt are expected to be somewhat higher than in the previous forecast, although still greatly reduced compared with 2006. Altogether, this leads to the state budget being expected to have a surplus.

#### The primary borrowing requirement

The primary borrowing requirement (all payments excluding interest on central government debt) is expected to be SEK –46 billion. Compared with the previous forecast, this is a change of SEK –5 billion (larger surplus).



#### Table 3. PRIMARY BORROWING REQUIREMENT 2007, CHANGE FROM PREVIOUS FORECAST, SEK BILLION <sup>1</sup>

Net taxes	-5
Dividend on state-owned shares	-2
Other income	-3
Expenditure	5
Net lending	0
Total	-5

<sup>1</sup> The amounts state the effect on the surplus. Thus, for instance, "Tax –5" means that revenue is expected to be higher.

The Spring Fiscal Policy Bill contained proposals for expenditure increases of approximately SEK 12 billion. A large part of this expenditure was, however, already allowed for in our previous forecast. Expenditure is therefore expected to increase by SEK 5 billion compared with the estimate in March.

The expected expenditure increases are compensated for by tax revenue, mostly from companies, being expected to be higher. The good development for companies also means that dividend on state-owned shares is revised upwards slightly.

The Debt Office's net lending to central government agencies, public enterprises and state-owned companies is expected to total SEK 15 billion, which is in principle unchanged from the previous forecast.

Interest payments on the central government debt Interest payments are expected to be SEK 38 billion. This is SEK 12 billion less than in 2006 but SEK 2 billion more than in the previous forecast. The change between the years is mainly due to smaller foreign currency losses. Interest is also affected by a large bond maturity. The bond which matured had a considerably higher coupon rate than the new loans which are assumed to replace the maturing loan. This is due to the maturing loan being issued at a time when interest rates were considerably higher than they are at present.

#### COMPARISONS

Central government financial net lending compared with the budget balance

Central government financial net lending improved gradually from 2003 to 2005. Net lending is temporarily weakened in 2006 to strengthen again in 2007. The budget balance<sup>1</sup> normally varies more than central government net lending, which is evened out by accrual of interest and taxes. Financial net lending is therefore better suited for analyses of the development of central government finances over time.

In 2006, central government net financial lending has been affected by the extra payment from the Premium Pension Authority, which deteriorates net lending for the state by SEK 25 billion. However, there will be no effect for the public sector as a whole since the pension sector is affected equally much in the opposite direction.

<sup>1</sup> To simplify the presentation, we speak here about the budget balance instead of the borrowing requirement, which is the same thing with reversed signs.

#### CONDITIONS UNDERLYING THE FORECAST

The forecast is primarily based on the expenditure frameworks and tax rules for central government finances adopted in the budget and spring fiscal policy bills.

In the areas where the forecast for the borrowing requirement requires macroeconomic assessments, the Debt Office bases itself on the National Institute of Economic Research's (NIER) macro scenario. In this forecast, we are using the macro forecast presented by NIER in March 2006.

The level of economic activity appears in principle to be unchanged from the time of our previous forecast. NIER estimates GDP growth of 3.7 per cent this year and 3.2 per cent in 2007. A gradual increase in employment and a rising rate of wage increases leads to an expected increase in the wages bill, which is the most important tax base, of over 5 per cent in both 2006 and 2007.

The improvement in the labour market in combination with our favourable conditions such as low interest rates and a strong wealth position, leads to increased household consumption.

The Debt Office's forecast for interest payments is based on the interest and exchange rates at the time of forecast. The stop date for the current forecast was 31 May 2006. We have also weighed in the outcome for the borrowing requirement for until the end of May.



Central government net lending is expected to total SEK –10 billion (a deficit) in 2006, compared with a surplus of SEK 8 billion in the previous forecast. The fact that the deficit in net lending is expected to be SEK 5 billion larger than the budget deficit is partly due to accrual of taxes.

Accrual effects are smaller in 2007 and net lending is expected to exceed the budget balance.

Table 4. CENTRAL GOVERNMENT NET FINANCIAL LENDING, 2003-2007, SEK BILLION

	2003	2004	2005	Forecast 2006	Forecast 2007
Budget balance	-47	-51	14	-5	8
Adjustment items	2	38	-11	-5	14
Sale of limited companies	0	0	-7	0	0
Transfer from National					
Insurance (AP) Fund	-13	-4	-2	0	0
Lending, net repayment	10	15	6	4	7
Capital and currency losses	8	19	-3	13	3
Accruals, other	-3	8	-6	-22	4
Net financial lending	-45	-12	3	-10	23

#### F A C T S

#### 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 of some important macro variables. The table shows an estimate of the effect different changes will have on the borrowing requirement 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
Wages bill <sup>1</sup>	-6
Household consumption, current prices	-2
Registered unemployment	4
Interest rates in Sweden	4
International interest rates	1
Exchange rate	0.5

<sup>1</sup> Local taxes from employment 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 perspective - the time horizon in the table- is greater than the permanent effect. Comparisons with other forecasts of the borrowing requirement

The Debt Office's new forecast indicates a borrowing requirement of SEK 5 billion this year and SEK -8 billion in 2007. The borrowing requirement for 2006 is larger than expected by other forecasters.

If a comparison is made with the forecasts from the Government and NIER, these have not taken into account the Premium Pension Authority's extra payment of SEK 25 million which will be made in December. The Government's forecast also includes sales income of SEK 15 billion. Adjusted for these differences, we estimate a considerably lower borrowing requirement than both the Government and NIER. The difference to the National Financial Management Authority's forecast, which was presented in June is, however, rather small.

#### Table 5. COMPARISON BETWEEN BORROWING REQUIREMENT FORECASTS, SEK BILLION

	Debt Office Govt.				NIER		ESV	
	06	07	06	07	06	07	06	07
Primary borrowing requiremer	nt-45	-46	-62	-45	-50	-40	-47	-43
Interest on central govt. debt	50	38	48	42	47	44	47	43
Borrowing requirement	5	-8	-14	-3	-3	4	1	0
Borrowing requirement with Debt Office interest and	_	0		0	0	1		-
sales income	5	-8	4	8	0	-1	4	-5

#### **MONTHLY FORECASTS**

The Debt Office publishes annual forecasts three times a year. From this forecast onwards we will publish monthly figures for two forecast periods at a time. Between regular publications, the Debt Office only makes revisions in exceptional cases. The revised forecast is then presented with the announcement of the monthly borrowing requirement five working days after the end of each month.

The forecast for the borrowing requirement in June 2006 is SEK 10.0 billion, which is SEK 4.2 billion higher than estimated in the previous forecast. The difference is mainly explained by payments for excess tax being expected to be higher than in the previous forecast. The increase can be explained by an increasing number of taxpayers choosing to make their return electronically with the result that tax refunds are made already in June.

The high borrowing requirement in August and December can also be attributed to the large payments of excess tax. The borrowing requirement in December is also explained by the Premium Pension Authority's extra dividend.



Large supplementary incoming tax payments are made in February which leads to a budget surplus this month.

Table 6. CENTRAL GOVERNMENT BORROWING REQUIREMENT BY MONTH 2006-2007, SEK BILLION

	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Primary borrowing requirement	6.8	-5.1	0.5	0.1	0.0	-4.7	38.9	2.4-	-29.0
Interest on central government debt	3.2	2.0	10.3	3.5	1.3	0.9	13.5	3.4	1.7
Borrowing requirement	10.0	-3.1	10.9	3.6	1.3	-3.8	52.3	5.8-	-27.3

#### **CENTRAL GOVERNMENT DEBT**

At the end of May 2006, central government debt was SEK 1,236 billion. This is a reduction since 1 January of SEK 73 billion.

Figure 2. CENTRAL GOVERNMENT DEBT DEVELOPMENT 1995-2007 SEK billion



The negative borrowing requirement has reduced the central government debt by SEK 66 billion, while short term investments and debt-related dispositions have decreased government debt by SEK 7 billion.

A debt-related disposition affects government debt without affecting the borrowing requirement. An example is the revaluation of the foreign currency debt at current exchange rates, which takes place continuously in the reporting of central government debt. The Debt Office does not weigh in expected debt-related disposition in the forecast of the development of central government debt. Short-term investments are expected, however, to decrease by SEK 20 billion until the end of 2006. The borrowing requirement is expected to amount to SEK 71 billion up to the turn of the year. This means that central government debt is expect to increase by SEK 51 billion to SEK 1,288 billion at the end of 2006. At the end of 2007, central government debt is estimated at SEK 1,279 billion.



THE SWEDISH NATIONAL DEBT OFFICE, 21 JUNE 2006 CENTRAL GOVERNMENT BORROWING - FORECAST AND ANALYSIS 2006:2

# FUNDING

The issue volume of nominal government bonds is being retained at SEK 3 billion per auction. Borrowing in inflation-linked bonds will continue at an annual pace of SEK 5-10 billion. The Swedish National Debt Office is resuming an annual amortisation pace of the foreign currency debt of SEK 25 billion. Foreign currency borrowing is estimated at SEK 44 billion in 2006.

The net borrowing requirement is estimated at SEK 5 and SEK -8 billion for 2006 and 2007 respectively. The net borrowing requirement is increasing by SEK 21 billion in 2006 compared with the forecast in March. The increased borrowing requirement mainly relates to the month of December and is due to changes in the Premium Pension Authority's payment routines, which is moving payment of premium pension funds from January to December from this year onwards. Two payments will therefore be made this year.

In addition to the net borrowing requirement, the Debt Office also needs to finance maturing loans. Altogether, funding in bonds and T-bills (government securities) is expected to total SEK 50 billion in 2006, which is SEK 17 billion more than forecast in March. The foremost reason for the increase in the funding requirement is that the net borrowing requirement is being adjusted upwards. In 2007, funding in government securities is estimated at SEK 44 billion compared with SEK 43 billion in the previous forecast.

#### Table 1. FUNDING 2005-2007, SEK BILLION

	2005	2006	2007
Net borrowing requirement	-14	5	-8
Change in cash equivalent holdings and			
retail market borrowing <sup>1</sup>	29	-23	7
Maturing bonds and buybacks <sup>2</sup>	56	68	46
Government bonds	16	34	30
Foreign currency bonds	40	34	16
Total	66	50	44
T-bill borrowing, net <sup>3</sup>	-27	-45	-64
Bond borrowing, gross <sup>4</sup>	93	96	109
Foreign currency bonds	25	25	20
Inflation-linked bonds <sup>5</sup>	12	7	8
Nominal government bonds <sup>6</sup>	56	64	81
Funding in government securities	66	50	44

<sup>1</sup> Change in outstanding deposits, liquidity bills and repos. Retail market borrowing is assumed to be unchanged in 2006 and 2007.

<sup>2</sup> No buybacks are planned in 2006 and 2007 other than buybacks in connection with exchanges.

<sup>3</sup> Net of issues (excluding exchanges) and maturities.

<sup>4</sup> Nominal amounts. Premiums and discounts (including inflation compensation) and exchange rate differences are included as interest payments in the net borrowing requirement. 2005 2006 2007 <sup>5</sup> Issue volume per auction, average. 0.6 0.3 04 <sup>6</sup> Issue volume per auction, average.

24

28

35

Table 1 shows an assessment of the allocation of funding between bonds and T-bills as well as the allocation of bonds borrowing among nominal government bonds, inflation-linked bonds och foreign currency bonds.

#### Table 2. IMPORTANT DATES 2006

Date	Time	Activity
7 August	09.30	Press release on introduction of 1051 and exchange of 1037
21-25 August	16.30	Exchanges of loan 1037 for T-bills
31 August	09.30	Press release on exchange of 3001
6 September	16.20	Conditions for issue of 1051 (coupon fixing)
7 September	11.00	Exchange of 3101 for 3106
13 September	11.00	Introduction of new ten-year nominal government bond 1051
14-19 September	11.00	Exchange of loan 1051 for loans 1041 and 1050
1 October at the la	atest	The Debt Office's proposed guidelines for 2007
5 October	11.00	Exchange of 3001
25 October	09.30	Central Government Borrowing – Forecast and Analysis 2006:3
2 November	11.00	Exchange of 3001
15 November at th	ne latest	Government decision on guidelines for 2007
14 December	11.00	Exchange of 3101 for 3106

#### NOMINAL KRONA BORROWING Nominal government bonds

Unchanged issue volume until 2007

The issue volume is being kept unchanged at SEK 3 billion per auction in 2006. The interest rate refixing period for the nominal krona debt is at present close to the target and the revision of the borrowing requirement made in relation to the March forecast mainly relates to the borrowing reauirement for December.

We consider that an increase of the issue volume to SEK 3.5 billion per auction will be needed from 1 January to avoid a shortening of the interest rate refixing period. So far this is only a forecast. A more exact decision on bond borrowing during 2007 will be provided in the next forecast published in October.

Our forecast for the interest rate refixing period is shown broken down by month in Figure 1. The interest rate refixing period is calculated at 3.5 years on average during 2007.

As shown in Table 3, relative large maturities in 2006 and an increased issue volume next year entail that the outstanding volume of nominal government bonds will



increase in 2007 compared with this year.<sup>1</sup> The table also presents the exposure in bond rates, taking into consideration planned swaps. Swaps are discussed in more detail in the section on T-bills and currency borrowing.

#### Figure 1. FORECAST AND OUTCOME FOR THE DURATION AND INTEREST RATE REFIXING PERIOD OF THE NOMINAL KRONA DEBT



From 1 January 2006, the maturity of the debt has been measured by the interest rate refixing period (right axis) instead of duration (left axis). The scales have been adapted so that the target for duration at the end of 2005 (2.8 years) coincides with the target for the interest rate refixing period for the nominal krona debt (3.5 years). From this funding forecast onwards, we are publishing our forecast for the interest rate refixing period in the nominal krona debt. The target for the interest rate refixing period is  $3.5 \pm 0.3$  years. From July, we will also publish the monthly outcome for the interest rate refixing requirement.

## Table 3. CHANGE IN OUTSTANDING GOVERNMENT BONDS, NET INCLUDING SWAPS, SEK BILLION

2005	2006	2007
56	64	81
-75	-93	-67
-19	-29	14
-27	-6	13
-46	-35	27
	2005 56 -75 -19 -27 -46	2005         2006           56         64           -75         -93           -19         -29           -27         -66

#### Half of issues in the ten-year loan

On 13 September 2006 we will issue a new ten-year loan, loan 1051, maturing on 12 August 2017. The new loan is being introduced initially in an auction with a planned volume of SEK 3 billion.

In the four following business days, an opportunity will be provided to exchange loan 1041 (May 2014) and 1050 (July 2016) for the new ten-year loan. Exchanges totalling SEK 22 billion will be offered of which SEK 14 SEK billion in 1041 and SEK 8 billion in 1050. Exchanges are made nominal for nominal. The conditions for these exchanges will be announced in a press release on 7 August and coupon fixing of the new ten-year loan will take place

a week before the first issue. On 7 August, the conditions will also be announced for exchanges of loan 1037 for T-bills which take place on 21-25 August.

Bond borrowing usually takes place in the reference loans with two, five and ten year maturities that are traded in the electronic interbank market.<sup>2</sup> During 2006 and 2007, about half of the issues will be made in the tenyear segment. We are concentrating borrowing on the new loan in order for it to have sufficient liquidity. We expect to make a few issues in the two and fifteen-year maturities and the rest in the five-year segment.<sup>3</sup>

#### Table 4. REFERENCE LOANS IN THE ELECTRONIC INTERBANK MARKET 1

Dates for exchanges of reference loans			
(IMM date)	2-year	5-year	10-year
Today	1043	1045	1050
20 December 2006		1046	1051
21 March 2007			
20 June 2007	1048		
19 December 2007			1052

<sup>1</sup> The above dates for changes of reference loans refer to the settlement date. The first settlement date for a new reference loan is normally the Friday before the IMM date.



#### Figure 2. NOMINAL GOVERNMENT BONDS (BENCHMARK LOANS) SEK billion

#### T-bills and interest rate swaps Reduced borrowing in T-bills

Funding in T-bills is estimated to decrease by SEK 18 billion in 2006 compared with 2005. We expected a larger reduction in the March forecast. The revision reflects the

<sup>1</sup> Information about outstanding stocks in the different types of debt is published in the Debt Office's monthly report The Swedish Central Government Debt.

<sup>&</sup>lt;sup>2</sup> The choice of reference loans in the electronic trade is determined by the loan that is closest in maturity to two, five or ten years. Reference loans are only changed, however, on IMM dates (the third Wednesday in March, June, September and December) with the criteria that the loan in terms of maturity is to be closest to two, five or ten years on the subsquent IMM date. In this way, the underlying loan in the forward contracts will always be the same as a reference loan during the last three months of the contract.

<sup>&</sup>lt;sup>3</sup> See fact box on our issue decisions in Central Government Borrowing – Forecast and Analysis 2005:3.



increased borrowing requirement in December as a result of the PPM payment of SEK 25 million being moved from January 2007 to December 2006. Funding of T-bills over the turn of the year will therefore increase.

The decreased funding by T-bills of SEK 19 billion in 2007 is the mirror image of the increased bond borrowing.

## Table 5. CHANGE IN OUTSTANDING T-BILLS, NET INCLUDING SWAPS, SEK BILLION

	2005	2006	2007
T-bill borrowing, net <sup>1</sup>	-27	-45	-64
Exchanges of government bonds for T-bills	56	56	42
Change in T-bill stock	29	10	-22
Interest rate swaps, net	41	9	17
T-bill stock and swaps, net change	70	19	-5

<sup>1</sup> Net of issues (excluding exchanges) and maturities.

#### SEK 30 billion in interest rate swaps

The Debt Office can also create short-term borrowing by issuing bonds and then using interest rate swaps to shorten the time to maturity. This technique makes it possible to provide more liquidity to the bond market without increasing the total time to maturity of the debt. Provided that the difference between the swap rate and the government bond rate is sufficiently large, this borrowing technique will also reduce central government funding costs.

During 2006 and 2007 around SEK 30 billion of bond borrowing will be swapped for short-interest rate exposure in kronor or foreign currency. Interest rate swaps can also be used as part of currency borrowing. An interest rate swap is combined with a currency swap in such a way that exposure in SEK is replaced by exposure in foreign currency.<sup>4</sup>

The Debt Office started to use swaps at the end of 1995 and has to date built up a stock corresponding to around SEK 230 billion. The outstanding stock of swaps is now expected to decrease slightly for the first time. In 2007, the volume of maturing swaps will namely exceed SEK 30 billion, the amount we expect to make in swaps.

If market conditions change, the actual swap volume can deviate from the forecast. Swaps will continue to be made at a relatively even pace during the year.

#### Table 6. CHANGE IN OUTSTANDING SWAPS, SEK BILLION

	2005	2006	2007
Interest rate swaps <sup>1</sup> Currency swaps <sup>2</sup>	41 5	11 19	22 8
Swaps total	45	30	30
Swaps, maturities	-18	-24	-43
Swaps, net change	27	6	-13

<sup>1</sup> Interest rate swaps from long to short interest rate exposure in SEK.

<sup>2</sup> Interest rate swaps from long to short interest rate exposure combined with currency swaps to foreign currency.

#### **INFLATION-LINKED BORROWING**

**Unchanged issue volume of SEK 5-10 billion** Demand for inflation-linked bonds has varied over time. On average, demand has been weaker in the past year, at least in periods, than in previous years. In parallel, the difference between nominal and real interest levels has increased during the past year.

During 2006 we have to date issued SEK 4.7 billion in inflation-linked bonds and we estimate a volume equivalent to around SEK 7 billion for the whole of 2006. In the light of the limited central government borrowing requirement otherwise, it is expected that the proportion of inflation-linked debt will increase even with limited issue volumes. This together with an uncertain and periodically weak demand leads us to expect to continue to issue at an annual pace of SEK 5-10 billion in 2007 as well.

The longer-term scale of inflation-linked borrowing will depend on how we handle inflation-linked borrowing in a situation where the proportion of inflation-linked bonds is close to the long-term target of 20 per cent of the central-government debt. We will take this issue up again later. It may also be worth noting that the future borrowing volume will be affected by how much of loan 3101 which matures in 2008, and how much is exchanged for loan 3106. The larger the volume that matures, the more we need to issue to maintain the inflation-linked proportion of the central government debt.

The auction volume at the ordinary auctions will normally be SEK 500 million. However, deviations can occur on occasions when market conditions are special such as on coupon maturity.

During the autumn, we intend to carry out four outright auctions and four exchange auctions between outstanding bonds. In 2007 we plan to hold fourteen outright auctions and five exchange auctions. The current auction calendar for 2006 can be found in Market Information at the end of the report.

<sup>&</sup>lt;sup>4</sup> See panel on borrowing instruments and swaps on p. 9 in Central Government Borrowing – Forecast and Analysis 2004:2. For a more detailed discussion on the use of swaps, see Holmlund, A, (2002), "Swaps in central government debt management", Central Government Borrowing – Forecast and Analysis 2002:3, p. 17-20. How funding is distributed among different loan instruments is described in Olofsson, T. (2002), "How central government debt is funded", Central Government Borrowing – Forecast and Analysis 2002:3, p. 13-16.

Loans 3106, 3105, 3102 and 3104 will be issued in 2006 and 2007. Based on our assessment of current demand and the need to increase the outstanding stock of loan 3106, just under half of the borrowing will take place in this loan. Otherwise, smaller volumes will be issued in the long maturities. This assessment naturally depends on the state of the market which can change. The next occasion for revision is in October when the next assessment will be reported on. Choices of bond for each particular auction will mainly comply with an internal issue plan decided upon in advance.

#### Exchanges of 3101 and 3001

In 2006 and 2007 further exchanges of Ioan 3101 for 3106 will be offered: two during the autumn and four next year. In June, an exchange took place where we bought back SEK 3.7 billion of Ioan 3101. The exchange in September this year will be neutral from the point of view of price risk and the exchange in December will be neutral from the point of view of liquidity.<sup>5</sup> In all, exchanges of SEK 8 billion of Ioan 3101 will be offered during 2006. In 2007, investors will be offered exchange opportunities corresponding to the outstanding amount at the beginning of the year. No exchange or buyback opportunities will be offered during 2008. This also means that we will not retain any market maintenance repo or exchange facility in Ioan 3101 in relation to our dealers after the last exchange has taken place at the end of 2007.

The zero-coupon loan 3001 now has a nominal volume of SEK 11 billion (SEK 12 SEK billion outstanding volume including inflation compensation). Since the loan has limited liquidity, the Debt Office will offer exchanges of this loan for a more liquid inflation-linked bond on two occasions during the autumn (see Table 2) and one occasion in the spring. Loan 3106 is a candidate for exchanges. The three exchanges will together comprise offers corresponding to the whole of the outstanding volume of loan 3001. The conditions for exchanges and choice of exchange bond will be announced in a press release published on 31 August. Suggestions from dealers and investors are welcome.

The actual extent of the exchanges, concerning both exchanges in 3101 and 3001, will depend on investor interest. Investors will not be offered any incentives to exchange the loans.



### Figure 3. INFLATION-LINKED GOVERNMENT BONDS SEK billion

#### FOREIGN CURRENCY BORROWING

On 21 June, the Debt Office resumes an annual amortisation pace of the foreign currency debt of SEK 25 billion. After a period of a weak krona exchange rate since November 2005, the krona has strengthened during the spring. The krona exchange rate is now moving towards an interval where we consider that we should not take any long-term position on the exchange rate path. During the period from 11 November 2005 to mid-June only the annual equivalent of SEK 10 billion was amortised due to the weak krona exchange rate. This means that we will amortise SEK 18 billion of the foreign currency debt in the calendar year 2006.

During 2006 and 2007, loans will mature for the equivalent of SEK 62 and 53 billion respectively. Accordingly, we need to borrow SEK 44 and SEK 28 billion respectively in foreign currency this year and next year to achieve the target for the pace of amortisation of the foreign currency debt.

Table 7. FOREIGN CURRENCY BORROWING 2005-2007, SEK BILLION

	2005	2006	2007
Foreign currency borrowing requirement, gross	30	44	28
Foreign currency amortisation	-20	-18	-25
Maturities and exchange rate differences	50	62	53
Foreign currency bonds <sup>1</sup>	43	30	16
Currency swaps <sup>2</sup>	18	21	38
Short-term currency loans, net	-4	4	0
Realised exchange rate differences	-8	7	-1
Foreign currency borrowing, gross	30	44	28
Foreign currency bonds	25	25	20
Foreign currency swaps, gross <sup>2</sup>	5	19	8

<sup>1</sup> Book value.

<sup>2</sup> Interest rate swaps from long to short interest rate exposure combined with foreign currency swaps to foreign currency.

<sup>&</sup>lt;sup>5</sup> Exchanges that are neutral in terms of price risk mean that the market value of purchase and sales volume multipled by the modified duration of the respective bond are to be equal. Exchanges that are neutral in terms of liquidity mean that the purchasing and sales amounts (cash amounts) are to be equal.



We can borrow in foreign currency by issues of bonds in krona that are swapped to exposure in foreign currency (krona/swap borrowing)<sup>6</sup> or by issues of foreign currency bonds (direct currency borrowing). The allocation of currency borrowing between direct currency borrowing and krona/swap borrowing depends on the interest rate terms that can be obtained.

To date, we have borrowed SEK 16.4 billion on the capital market. Among others, two dollar loans (eurodollar) of USD 1 billion each have been issued: one in February maturing in 2011 and one in May maturing in 2009. The size, maturity and public sale of the loans to major institutional investors makes them benchmark loans. During the spring, over SEK 10 billion has been made in krona/swap borrowing.

We expect to issue a further benchmark loan during the autumn provided that a loan of this kind can be raised on satisfactory conditions. Otherwise, the krona/ swap borrowing will be increased.

During the autumn 2006 and in 2007, the borrowing requirement has been allocated between direct currency borrowing and krona/swap borrowing; see Table 7. The allocation is based on the demand and cost experiences during the past years. The actual allocation may deviate from this scenario.

#### SUMMARY

The issue volume in nominal government bonds is kept unchanged at SEK 3 billion per auction. We expect an increase to SEK 3.5 billion from the turn of the year. In all, borrowing in nominal government bonds is then expected to be SEK 64 and 81 billion respectively in 2006 and 2007.

Bond borrowing will be allocated in such a way that around half takes place in the ten-year maturity. A new ten-year bond is being issued on 13 September. In addition, we expect to make individual issues in the two and fifteen year segments and the remaining issues in the five-year maturity.

T-bill borrowing is expected to decrease by SEK 18 billion in 2006 compared with the previous year. This reduction is lower compared with the previous forecast. In 2006, we also expect to continue to make swaps equivalent to SEK 30 billion.

Inflation-linked bond borrowing is calculated to correspond to an annual rate of SEK 5-10 billion.

The Debt Office is resuming an amortisation pace of SEK 25 billion on 21 June. From 11 November 2005 until now, the annual amortisation pace has been SEK 10 billion due to the weak SEK exchange rate. If the higher pace of amortisation is maintained for the rest of the year, SEK 18 billion of the foreign currency debt will be amortised in the 2006 calendar year. The foreign currency debt is expected to amount to SEK 44 billion in 2006 and SEK 28 billion in 2007.

<sup>&</sup>lt;sup>6</sup> Issued government bonds are first swapped to short interest-rate exposure. Variable interest in SEK is then exchanged to short foreign interest rates by a currency swap that has the same maturity as the interest rate swap. The Debt Office receives the foreign currency spot at the same time as the swap is made. When the swap matures, we pay the same amount in foreign currency. The foreign currency swap thus creates a debt in foreign currency.



#### PUBLICATION OF THE FORECAST AND OUTCOME FOR THE INTEREST-RATE REFIXING PERIOD

F A C T S

In the future, the Debt Office will publish both our internal forecasts for the interest-rate refixing period in the nominal krona debt and the actual outcome. The interest rate refixing period is a measure of the time to maturity of the central government debt which is calculated by weighing time to every cash flow (coupons and maturities) with the size of the cash flows. The intention is to improve the predictability of our borrowing by greater openness about our forecasts. Deviations from the target for the interest rate refixing period are namely an important factor when we make decisions on changes in bond borrowing.

Publication takes place at the same time as the outcome of central government borrowing, at 9.30 am on the fifth business day each month. The outcome is published as an average for the month in question (average for the past 21 business days) and for the last day of the month.

In November 2005, the Government decided that the benchmark for the average interest rate refixing period should be 3.1 years. The Debt Office's board has allocated this benchmark in such a way that the nominal krona debt is to have an interest rate refixing period of 3.5 years. The maturity may deviate by at most  $\pm$ 0.3 years from this. Furthermore, the guideline for the maturity of the foreign currency debt is 2.1 years. The interest rate refixing period for the foreign currency debt is always close to the target as it is controlled by derivative transactions on the international fixed-income market. When following up these targets, the interest rate refixing period is measured as a moving average of 21 business days.

In the loan planning for the nominal krona debt, borrowing is allocated between T-bills, nominal bonds with different maturities and swaps in such a way that the interest rate refixing period is 3.5 years during the forecast period on average.

The interest rate refixing period varies over the months of the year as a consequence of, for instance, coupon payments and seasonal fluctuations in the borrowing requirement. The fluctuation interval of  $\pm 0.3$  years from the benchmark is required to be able to cope with short-term changes in the fixed-interest period which we would otherwise need to parry in various ways. This kind of flexibility is needed in controlling the interest rate refixing period to avoid unnecessary disturbances of the financial markets and unmotivated transaction costs for us.

If the interest-rate refixing period, due to, for instance, unexpected changes in the borrowing requirement, were to deviate significantly from our forecast, the loan plan is adjusted in the next funding plan. This can be illustrated by an example: unexpectedly large tax revenue means that we reduce borrowing in T-bills in the short term. This entails everything else being equal, that the krona debt has a longer average maturity. If this deviation is sufficiently large, bond borrowing will be pulled down in the next funding plan in such a way that the interest rate refixing period will again vary around the target of 3.5 years.

It should be noted that the interest rate refixng period can vary sharply from day to day depending on temporary effects. For instance, the daily variations in the central government payment flows give rise to substantial fluctuations in the interest rate refixing period. Other examples are payments in connection with collateral for swaps (CSA), use by the dealers of our market maintenance repo facility and allocation over time of our currency forwards are other examples. When we make a forecast of the interest rate refixing period, this only applies to the last day of every month. A deviation of 0.1 from our forecast on a particular day, solely due to temporary effects, is not uncommon. Temporary deviations of this kind will not affect future loan planning. In order for a deviation to give rise to changed loan plans, it must rather entail larger deviations which arise systematically in several consecutive months. We will therefore not publish any analysis or comment in any other way on particular outcomes or deviations from forecasts other than in connection with publication of Central Government Borrowing – Forecast and Analysis.



THE SWEDISH NATIONAL DEBT OFFICE, 21 JUNE 2006 CENTRAL GOVERNMENT BORROWING – FORECAST AND ANALYSIS 2006:2

# BORROWING IN THE EVENT OF LARGE SURPLUSES

During periods of large surpluses, central government debt and outstanding individual loan stocks decrease. The Debt Office's undertakings to work for efficient and liquid markets in our loan instruments can then be confronted by challenges. We have several possibilities for endeavouring to reduce the effects on, for instance, liquidity. We also consider that we have good opportunities to avoid buybacks in any future privatisations.

#### **OUR LOAN POLICY**

The target for central government debt management is to borrow as cheaply as possible in the long term while taking into account risk. In the government guidelines, the central government debt is allocated among different types of debt and maturities with the intention of achieving this objective. The Debt Office's direction of and decisions on borrowing are designed in accordance with this target.

By contributing to an attractive, liquid and wellfunctioning market for government securities, we can maintain a broad international investor base and thus create the conditions for low borrowing costs. To this end, we concentrate our borrowing to a few liquid benchmark loans. We try to reduce insecurity on the money and bond markets by having open and clear communication with investors and counterparties, and to support the market by various market maintenance measures.

In the light of this, it may be motivated to comment on how we would tackle our task if we were to end up in a situation of large budget surpluses. At present, we are calculating that the state budget this year, as well as next year, will have a balance which is close to zero. At the beginning of the 21st century, however, we had large surpluses and a situation of this kind can, of course, arise again.

#### SURPLUSES ALSO ENTAIL CHALLENGES

Surpluses entail a reduction in central government debt. This is positive. Funding of the central government debt is facilitated in a situation with high creditworthiness and a small supply of government securities. At the same time, the Debt Office is confronted by certain challenges in a surplus environment. The challenge consists in complying with our undertakings and our loan policy when we are not always able to meet demand and the desired liquidity in all instruments and maturities that are in demand.

Challenges may involve situations which are dealt with by the market and where it is important that we have

a clear and predictable policy and situations where we can contribute by more efficient markets by adjustments in our borrowing.

#### REDUCED SUPPLY CAN BE DEALT WITH BY THE MARKET

In situations where there is high demand for certain maturities, it may be difficult to satisfy all interests. This kind of situation is not basically a fundamental problem but is dealt with by price formation in the market. This does not, of course, mean that the market always copes with situations of this kind without friction, but that it is not the state's responsibility to eliminate all frictions in the market. However it is of interest for us that market participants understand our policy and how we manage small borrowing requirements. We want to avoid situations where the market is unnecessarily surprised by our conduct.

It is therefore an important issue how our undertaking to contribute to liquid and efficient markets for government securities is to be dealt with during periods with more or less large surpluses.

One important issue is that even if the central government budget is in surplus, we will still need to loan since we need to finance maturing loans. We also need to borrow in bonds with long maturities – quite regardless of the size of the surplus - since the time to maturity of the debt would otherwise be too short.

#### THE ABILITY TO CONTRIBUTE TO LIQUIDITY

It is not possible to avoid less borrowing in all instruments, in total, in the event of major surpluses. The outstanding central government debt and particular loan stocks will therefore also be less. This can naturally entail that liquidity on the margin will suffer. Our task will then be to do what we can, for instance, by making priorities, to minimise the effect on liquidity and the markets. This can be illustrated by some examples.



- It will be even more important in surplus situations to concentrate borrowing on new loans to build up sufficient liquidity. We can, for instance, place even more of our auctions in the maturities which are new or which need additional liquidity. At present, we make about half of our auctions in the new ten-year maturity. It is quite possible to increase this proportion further within the framework of our restrictions on the maturity of the debt.
- At present, we issue a new ten-year bond every year. This has been possible since the borrowing requirements have been sufficient every year to build up a good liquidity in these loans. It is naturally possible to extend the intervals between new issues slightly.
- We use derivatives such as swaps to be able to issue our ten-year bonds with sufficiently large volumes.
   Swaps make it possible to issue bonds without the average time to maturity of the central government debt becoming too long. We can use our relative strength as borrowers in bonds without needing to pay the high interest rate which long bond borrowing normally means.
   Swaps can accordingly be used in situations where the borrowing requirement restricts the possibility of keeping up bond borrowing.
- An important way of building up new liquid loans with limited borrowing requirements is exchanges of new loans for old. We repurchase older shorter loans at the same time as we sell new longer loans, normally a new ten-year loan. When necessary, one can consider making exchanges to a grater extent than has now been the case.
- Buybacks as a way of creating scope for new borrowing are in other words an important part of our method for borrowing and can be used without having a direct link to exchanges. It is important to underline that this involves buybacks which are based on an interest on the part of investors and are carried out without any real impact on the market.

# BUYBACKS IN CONNECTION WITH PRIVATISATIONS ARE AVOIDED

During 2000 the state had large surpluses which were partly due to sales of state assets. Income from privatisations does not differ in principle from a funding perspective from tax revenue. With good forward planning, there are opportunities to adapt borrowing in such a way as to avoid large fluctuations in issues; this applies both to tax revenue and income from privatisations.

One difference is that privatisations can lead to large incomes on one single day. These must then be dealt with within the framework of our liquidity management. In 2000, the Debt Office bought back bonds for around SEK 40 billion in connection with the partial privatisation of Telia. These buybacks were carried out to obtain scope for continued issues without exceeding the credit limits that we had set ourselves for short-term investments. In this case, it was accordingly restrictions in our liquidity management that were the primary reason for the buybacks.

Experiences of buybacks in 2000 were not altogether good: buybacks had substantial effects on market rates, created uncertainty and volatility and were thus expensive for the state. One reason for this was, apart from deficiencies in communication with the market, that the Debt Office undertook to purchase large volumes regardless of investor interest.<sup>1</sup>

We have drawn the conclusion that buybacks of the kind we made in 2000 are not a first-hand alternative in large one-off income but should be avoided as far as possible.

It is worth pointing out that the Debt Office today has greater opportunities for investing large deficits within the framework of liquidity management than previously. Among other things, we are now able to invest larger amounts in foreign currency now that we carry out currency exchange ourselves. We expect that the flexibility that we now have, within reasonable limits, will be sufficient to be able to manage cash flows of the size that a privatisation can entail, without having to resort to buybacks.

> Thomas Olofsson Head of Funding

<sup>&</sup>lt;sup>1</sup> There is a discussion of how privatisation was managed by the Debt Office in the material for evaluation of the year 2000 submitted to the Government by the Debt Office (The Debt Office's annual report for 2000 and material for evaluation of central government debt management) and in the Government's own evaluation (Government Communication 2000/01:104 Evaluation of Central Government Borrowing and Debt Management 1995/96-2000, Skr. 2000/01:104).



THE SWEDISH NATIONAL DEBT OFFICE, 21 JUNE 2006 CENTRAL GOVERNMENT BORROWING – FORECAST AND ANALYSIS 2006:2

# CONCENTRATED ACTIVITIES LEAD TO EFFICIENT FINANCIAL MANAGEMENT

The state can be regarded as a large group of companies where the various authorities are subsidiaries. Large commercial groups often co-ordinate and centralise important financial functions. The state works in the same way. The Debt Office has managed central government debt for over 200 years. Other financial functions have also increasingly been concentrated at the Debt Office. This article describes the Debt Office's role as the state's internal bank. Our aim is to make the central government payment system more efficient and to increase the support and services provided to the authorities.

#### HOW THE STATE PAYMENT SYSTEMS WORKS

There are around 240 government authorities in Sweden. They make, or receive, a large number of payments. These may be insurance and allowance payments from the Swedish Social Insurance Administration or incoming tax payments to the Tax Agency. But they may also be the authorities own wage or rent payments.

To make the state's cash management as efficient as possible, Sweden has, like many other countries, decided to centralise management of its payments. This means that authority payments are collected in a top account that the Debt Office has at the Riksbank. In-payments and disbursements are netted there and, depending on whether there is a surplus or deficit in the account, deposits are made or funds are provided centrally by the Debt Office in order to make the final balance zero every day.

#### BEST PRACTICE FOR THE CENTRAL GOVERNMENT FINANCIAL MANAGEMENT

There are some natural steps to take to achieve the best market practice for central government financial management.<sup>1</sup>

- Efficient budget implementation
- Centralised liquidity management
- · Centralised financial risk management
- Co-ordination between central government debt management and cash management
- Use of short-term debt management instruments to handle liquidity surpluses and deficits
- Efficient payment systems for payments to and from the state
- An efficient intra-state payment system
- Efficient infrastructure for clearing and settlement The Swedish state is well to the fore in these re-

spects. However, the Debt Office endeavours continuously to achieve new improvements to reduce the state's costs for funding cash management and payment processing.

<sup>1</sup> *Cf Mike Williams*, Government Cash Management, Good – and Bad – Practices, *September 2004, item 45.* 

#### Authority payments collected in top account

In practice, the system works like this. The Debt Office procures payment services by framework agreements with the banks. The framework agreements regulate various types of payment services that the authorities can use. The authorities can choose the bank they wish to use to make their payments. The authority signs a sub-agreement with the bank based on the framework agreement. Every authority has one or a number of transaction accounts at one or more of the banks. These bank accounts are linked within the respective bank in a group-like account structure, see Figure 1.

## Figure 1. AUTHORITY PAYMENTS PASS THROUGH THE BANK SYSTEM BUT ARE SETTLED CENTRALLY BY THE DEBT OFFICE



If an authority makes a disbursement from its bank account, a temporary deficit will be created in the account. The deficit is covered at the next occasion of settlement by funds being transferred from SCR to the Debt Office's top account at the bank and then onward to the authority's account. When the authority receives a payment, the account is correspondingly emptied into the Debt Office's top account and SCR. These procedures are referred to as the state coverage and emptying procedures.

The balances in the authorities' transaction accounts are transferred to and collected in a top account at the respective bank and then onward to the Government Central Account at the Riksbank (SCR). This takes place three times

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a day at a number of set times. Since in-payments and disbursements are seldom equal, a surplus or deficit normally arises on the central account. These must be zeroed every day, which is the responsibility of the Debt Office.<sup>1</sup>

**The Debt Office handles liquidity management** The Debt Office finances a deficit by borrowing on the interbank market. This leads to an increase in central government debt and the state's interest costs. Correspondingly, if a surplus is to be invested, this will lead to a reduction of central government debt and will provide the state with interest income.<sup>2</sup>

To plan well in advance and to keep funding costs for liquidity management as low as possible, the Debt Office makes forecasts of the daily liquidity flows in the state. This is comparable with the way in which a finance department at a company works by preparing liquidity forecasts to fund temporary cash deficits or to be able to invest temporary surpluses in the best way.<sup>3</sup>

A prerequisite for an efficient system is that the authorities do not have funds apart from the state coverage and emptying routines so that as large a part as possible of the funds are concentrated in the central liquidity management. In other countries, this is often a problem since the authorities are permitted to have their own balances outside the state liquidity management. The state often has no possibilities of checking the handling of funds by individual authorities and ministries.

In Sweden, the system is regulated by an ordinance, which functions well. Only occasionally do the authorities have funds outside the state emptying and coverage procedures, and this after approval from the Debt Office.

THE DEBT OFFICE IS THE AUTHORITIES' BANK

Every year, the Government sets a number of targets for each authority in the state budget. Separate appropriations are established for these targets in the budget. Two types of appropriations are used in Sweden. The first type is fixed appropriations. These may not be exceeded or saved to the following year. The other type is a general appropriation,

<sup>1</sup> See Lennart Sundquist, The state payment system and new framework agreements, Central Government Borrowing. See Forecast and Analysis, 2003:3, p. 22 pp for a more detailed description of the state payment system.

<sup>2</sup> See Anna Sjulander, The state's liquidity management, Central Government Borrowing – Forecast and Analysis 2005:1, p. 16 pp for a more detailed analysis of the Debt Office's liquidity management.

<sup>3</sup> A description of the Debt Office's forecasting activities is provided in Håkan Carlsson and Sofia Olsson, How and why the Debt Office forecasts the government's borrowing requirement, Central Government Borrowing Forecast and Analysis 2005:3, p. 14 pp. which may both be exceeded and saved (within specified limits).

General appropriations are mainly used by the authorities for administrative purposes or operations. This means that the authorities receive their appropriations in a lump sum and they then decide how to allocate them.

This arrangements leads to major efficiency improvements for the state since no central authority needs to check and approve every single payment by an authority. It also creates good incentives for the authorities to be efficient since they are able to retain their savings. Another benefit is that projects which cannot be carried out one year can be postponed until the following year without the Government having to make new decisions or grant new funds. See the fact box on page 16 for a more detailed description of the Swedish general budgeting model.

#### System support to the authorities

Within the state, there is an accounting system that resembles a bank account system for authorities. This system is managed by the Debt Office. The authorities' general appropriation is made available by funds being deposited in the respective authority's account in the accounting system. When the authority makes a payment, the balance of its account is reduced.

The system is called SIBWEBB since the authorities can log on to it from the Debt Office's website. To provide a picture of the extent of the system, there are around 600 appropriation accounts in the system that are at the disposal of 240 authorities. There are approximately 700 accounts for loans for fixed assets. In all there are around 2.000 accounts.

Figure 2 shows a schematic picture of SIBWEBB and the information received by the system. As mentioned above, the appropriations at the disposal of the authority are registered. The actual registration of the appropriation

Figure 2. SIBWEBB SERVES AS AN ACCOUNTING SYSTEM FOR THE AUTHORITIES





#### FRAME BUDGETING FOR AUTHORITIES CONTRIBUTES TO SAVINGS

In Sweden's budgeting model, the authorities receive a general appropriation for their operation. The authorities are monitored in relation to goals set in advance. This makes it possible for them to use their appropriations in a long-term cost-efficient way. Within certain limits, unused funds may be transferred to the following fiscal year. This is called appropriation saving.

If an authority, for instance, reduces the cost of its premises, these funds are not automatically withdrawn but can be used for other purposes. If every saving were to be withdrawn, the authority's incentive to make work more efficient would disappear. The possibility of appropriation saving enables major projects to be postponed from one year to another if it is considered to give a better result, without the government having to make new decisions or allocate new funds.

It is reasonable to assume that the individual authority is best suited to determine how appropriations are to be disposed of to achieve the goals in the best

does not have any impact on liquidity; the cash is first affected when a payment is made or received by the payment system at the commercial banks.

The authorities can continuously log on to SIBWEBB and check how large a part of the appropriation they have used. Authorities use their bank to make payments, such as suppliers invoices. The actual payment is covered by the Debt Office's liquidity management, although the bank reports the payment to SIBWEBB, and the information in the system is updated. In this way, the authorities can use SIBWEBB to make balanced reconciliations in relation to their own bookkeeping. They cannot do this in the ordinary bank system since their bank accounts are zeroed three times a day by the Debt Office's coverage and emptying routines.

Even if the transactions in the bank system take place net in the transaction and top accounts, all report to the Debt Office is made gross. Gross reporting makes it simple to identify all incoming payments and disbursements. Gross reporting also accords well with the arrangement of the state budget with an income and expenditure side.

It should be added that all information processing is automated by means of straight-through processing. Accordingly, the information on the different appropriaway. This approach and trust in the authorities assumes, of course, loyalty on the part of the authorities. Loyalty of this kind has been built up in the Swedish administrative tradition over a very long period. This procedure differs from that in other countries where a central function, for instance the Ministry of Finance, might be responsible for approving each authority payment. These arrangements are often accompanied by practical problems, such as payments taking a long time to process.

The Swedish system includes control mechanisms. For instance, a special authority – the National Financial Management Authority - provides support to the authorities in their bookkeeping and accounting and continuously monitors their use of appropriations. The authorities' compliance with the regulatory framework is checked by their internal auditors as well as by a state audit institution (Riksrevisionen). They check how appropriations are handled and if the set goals are met.

tions is registered in a system at the Ministry of Finance and information is transferred by file to SIBWEBB. The authorities normally work in a financial system, which in turn generates payment files that are transferred to the banks. The information is then automatically transferred to SIBWEBB from the bank's transaction systems.

#### Good cash management through

interest-bearing accounts

The authorities' accounts at the Debt Office are interestbearing. The authorities receive interest on market terms on their account balances, which creates good incentives for the authorities to try to retain money in the account as long as possible. For instance, they will pay invoices as late as possible. Ultimately, this leads to lower interest costs for the state as a whole.

This interest account model was introduced in the 1993/94 fiscal year. It performs an important function in the Government's financial management of the authorities since it puts a price on use of liquid funds. Thus, the authorities are aware of the costs that the state incurs for its funding.

Another part of the model is that the authorities are now permitted to save appropriation funds from one fiscal year to another. Before the model was introduced, there



was a tendency for authorities to consume any budget surpluses at the end of the fiscal year since there were no incentives for the authorities to be thrifty. There was an evident risk of less well-motivated consumption in the final months of the fiscal year.

#### Loan model for fixed assets

The authorities' investments in fixed assets are financed by loans at the Debt Office. This takes place alongside the annual administrative appropriation and on market terms. The duration of the loan is to be adapted to the economic lifetime of the assets. The authorities may finance several investments by a joint loan. However, if these assets have different economic lifetimes, the amortisation should in principle comply with the total annual depreciations of the assets covered by the loan.

The loan model is intended to provide a better picture of the financial performance of the authorities since investment costs are reported at the same pace as the underlying assets are used and consumed. The ambition is to better be able to assess the result and the effect of the authorities work in relation to their costs, which is related to the general appropriation model described in the fact box above.

In contrast, it would be possible to let funding take place on a cash basis. The authorities would request funds for purchases in the budget process and budget for these purchases directly in the state budget. However, an arrangement of this kind has a number of undesirable effects. Among other things, the authorities' budgeting over the years is very uneven and highly dependent on individual purchases of fixed assets.

The authorities' loan limits at the Debt Office are stated in their appropriation directive that the Government adopts each year in connection with the budget. The framework limits are registered in SIBWEBB and the authorities can then borrow money up to the limit. The loans are also registered and managed in SIBWEBB.

#### Figure 3. LOAN FRAMEWORKS ARE SET IN THE STATE BUDGET AND REGISTERED IN SIBWEBB



**Central management of the authorities' currency risks** The Debt Office offers forward contracts on currency to authorities, to enable them to budget without taking into consideration currency movements in the contracts they have entered into.<sup>4</sup> Currency payments otherwise create uncertainty for the authorities about the rate at which the appropriation funds will be used since their appropriations in the state budget are always stated in kronor. Therefore, authorities that make or receive payment in foreign currency benefit from hedging these payments. Hedging enables the authority to obtain a particular exchange rate that is set in advance, for a specified amount on a specified date. Thus, the authority knows exactly how much it is to pay in kronor despite the real payment taking place at some time in future when the exchange rate may have altered.

When an authority signs a forward contract with the Debt Office, the Debt Office undertakes to receive or pay currency at the due date at the exchange rate stipulated in the contract. With this, the Debt Office takes over the authority's currency risk. Accordingly, the state's overall risk does not diminish although the individual authority has avoided the risk. This is in order since the authorities' currency risk is negligible in relation to the state's other commitments in foreign currency.

The flows that come from authorities' forward contracts are aggregated with the Debt Office's other payment flows in foreign currency. The contracts can also be used to match the Debt Office's interest payments and amortisation on foreign currency loans.

#### PROCUREMENT OF PAYMENT SERVICES

An important task for the state financial management is to offer an efficient, cheap and secure payment system. The Debt Office is responsible for procuring payment services from the banks through framework agreements.

**Increased competition through competitive tendering** Commercial banks compete with one another to handle the central government payment flows through competitive tendering. Practically all of the authorities' incoming and outgoing payments pass through the banks with framework agreements. Agreements have been signed with Nordea, SEB and Swedbank.

The authority signs a product agreement under the framework agreement with the bank to use and sub-order

<sup>4</sup> See Mikael Bergman, Currency hedging for government agencies, Central Government Borrowing: Forecast and Analysis, 2005:2, p. 14 pp.



from a framework agreement. The framework agreement specifies all services and conditions including prices. Thus, the authority does not have to negotiate with the banks, which entails substantial administrative benefits.

**No float makes costs visible and reduces credit risk** There is a float in most payment systems, i.e. a delay between the incoming payments and disbursements which the payment intermediary is responsible for. During this period, the payment intermediary earns interest on the money, to a greater or lesser extent. This is the main compensation for the services of the payment intermediary.

The float has been abolished as a form of funding in the Swedish state payment system, where commercial banks are used to make and receive payments. The banks are now solely paid for services rendered.

#### Clear incentives provide savings

In the old framework agreements, the float affected the state as a whole through reduced interest income. The authorities did not pay a fee for the payment services they used and therefore lacked incentives to choose the most efficient and cheapest payment solutions. The new framework agreements without float make the incentives clear, since each authority is invoiced for its payments.

Unlike previous agreements the costs in the new agreements are not dependent on interest rate movements. This means that the state's total cost for payment operations is easy to overview and not sensitive to interest rates. In the old agreements, there were also a number of charge-based transactions, which meant that the banks were financed by both float and charges.

#### Reduced counterparty exposure limits the risk

The fact that the float has been removed has an additional positive effect. Due to the old framework agreements being based on float, a lot of the state's liquidity remained in the bank system at the end of every business day. The state thus had an extensive counterparty risk.

In 2003, for instance, the highest counterparty exposure was SEK 48 billion over a single night and the average was SEK 4.5 billion per night. Through the new framework agreements, the corresponding figures have decreased and in March 2006 the highest counterparty exposure was SEK 1.5 billion and the average SEK 192 million. The reduced exposure might not have a high economic value. However, it is worth taking into account when calculating the total value of the new framework agreements.

#### Clear costs make follow up possible

When the cost of banks services is clear to the authority in the form of invoiced amounts, the state can follow up the actual cost of the payment activity in an entirely different way than before. Furthermore the authorities can discuss payment solutions and costs with the bank in a way that they could not when it was concealed in the float. The visible costs of the framework agreement banks for various payment products have created a market-like situation where the banks compete to take care of the authorities' payments through both price and quality.

Analysis gives cost-effective payment services One of the requirements in the framework agreement is that the banks are to report to the Debt Office on the payment products each authority uses in the state payment system. In this way, detailed statistics can be built up centrally in the state group.

These statistics are used to analyse payment activities. The data store has the product name SITS. The picture below shows the ability of the authorities to choose different payment services from the three banks. Information about all payment services used is continuously supplied to SITS.

Figure 4. SITS GATHERS INFORMATION ON AUTHORITIY TRANSACTIONS



Analysis of the state payment activities is continuously in process. The authorities and the banks can also log on to SITS and access their own information. Thus, the banks cannot see information about any of the competing banks.

The Debt Office continuously communicates with the authorities to assist them to choose efficient payment solutions. An overall goal is to introduce straight-through



processing at the authorities since this improves efficiency and, in this way, reduces costs.

A practical example of the driving forces in the 2004 agreement being effective is the transition from manual payments with giro cheques and cheques to electronic payments from account to account.

The giro cheque and cheque payments accounted for almost 30 per cent of the state's total cost for payments of SEK 176 million. The three largest authorities in the area –The Swedish Social Insurance Agency, the Tax Agency and the National Road Administration, sent giro cheques at a cost of SEK 47 million in 2004. The number of manual payments amounted, however, to only around 4 million per year, which is to be compared with the state's total volume of 120 million payments. Four per cent of manual payments thus accounted for almost 30 per cent of the state's total expenditure.

By deliberate analysis and work on reducing costs, the authorities have already in 2005 succeeded in reducing costs for this type of payments by 34%.

# Charge cards and purchasing cards make payments efficient

A further component in creating an efficient payment system for the state is to move away from manual and cash-based payment routines in, for instance, invoicing processing, cash advances, vouchers and orders. One way of minimising or removing expensive routines is to introduce various types of charge card solutions.<sup>5</sup>

The Swedish state handles around 11 million invoices a year. On the assumption that a manual invoice costs SEK 200 on average to process, the state's annual cost for invoice management amounts to over SEK 2 billion. Card payments make it possible to do away with a large number of invoices since the card solutions make summary invoices and automated procedures possible.

Despite the great benefits of using charge cards, only 10 per cent of central government employees have access to one. In commercial groups the number is considerably higher. In 2005, the state has however experienced a trend break. The number of charge cards has increased by 34 per cent and turnover by 62%. Purchasing cards have also started to be used by certain large authorities.

As a main rule in the Swedish state, charge cards are issued with personal payment liability, i.e. the employee is responsible for paying the invoice from the card issuer. Normally, the employee therefore quickly reports the vouchers to the employer - the authority - to receive payment from the employer before purchases on the card fall due for payment.

Similarly to the framework agreements for payment processing, the Debt Office has carried out public procurement for framework agreements for card services. At present there are four suppliers of three different card networks (Eurocard/MasterCard, American Express and Visa) with state framework agreements.

#### THE NEXT STEP

In addition to the strength of the principal approach of regarding the state as a group, the state can still learn from the commercial actors' organisation of financial activity. There are thus reasons to move away from special state solutions as much as possible. In this way the services of the commercial banks, for instance, can be used in the best and cheapest way.

An area which the Debt Office has taken greater responsibility for in recent years is the state's currency management. The Debt Office has, for instance, taken over responsibility for payment of the EU contribution to the EU Commission as well as incoming funds from the Commission, including currency exchange. These tasks were previously performed by the Riksbank. Furthermore, the Debt Office now offers authorities the opportunity of entering a forward contract for their currency payments. A further step in centralised currency management would be to make it possible for the authorities to have a currency account at the Debt Office.

Another area which can involve savings for the state in the future is the introduction of a uniform payment system in Europe (SEPA). This is a European collaboration project run by the ECB. The objective is for the European States and citizens to be able to make payments in the European area as quickly, safely and efficiently as within the national borders.

Johan Palm Head of Cash Management

<sup>&</sup>lt;sup>5</sup> See Anita Schönbeck, Credit cards and purchasing cards – a good deal for the state, Central Government Borrowing Forecast and Analysis 2005:1, p. 21 pp.



# MARKET INFORMATION

Source: The Swedish National Debt Office, unless otherwise stated

WEDISH GOVERNMENT DEBT

NOMINAL	BONDS	OUTSTANDING	AMOUNTS	.31	MAY 2006
	00.000		,		

Nominal Bonds			(Nominal amount
Maturity Date	Coupon %	Loan no.	SEK n
2007-08-15	8.00	1037	79,90
2008-05-05	6.50	1040	59,78
2009-01-28	5.00	1043	71,62
2009-12-01	4.00	1048	49,99
2011-03-15	5.25	1045	65,03
2012-10-08	5.50	1046	44,69
2014-05-05	6.75	1041	63,77
2015-08-12	4.50	1049	36,48
2016-07-12	3.00	1050	40,98
2020-12-01	5.00	1047	41,70
Total benchmarks			553,98
Non-benchmarks			2,11

#### NOMINAL BONDS, AUCTION DATES

Announcement date	Auction date	Settlement date
2006-06-21	2006-06-28	2006-07-03
2006-07-26	2006-08-02	2006-08-07
2006-08-09	2006-08-16	2006-08-21
2006-08-23	2006-08-30	2006-09-04
2006-08-07	2006-09-13	2006-09-18
2006-08-07	2006-09-14 1	2006-09-19
2006-08-07	2006-09-15 <sup>1</sup>	2006-09-20
2006-08-07	2006-09-18 1	2006-09-21
2006-08-07	2006-09-19 1	2006-09-22
2006-09-20	2006-09-27	2006-10-02
2006-10-04	2006-10-11	2006-10-16
2006-10-18	2006-10-25	2006-10-30
2006-11-01	2006-11-08	2006-11-13
2006-11-15	2006-11-22	2006-11-27
2006-11-29	2006-12-06	2006-12-11

<sup>1</sup> Exchange Auction. Announcement in press release.

#### T-BILLS, OUTSTANDING AMOUNTS, 31 MAY 2006

	(Nominal amount)
Maturity Date	SEK m
2006-06-21	65,656
2006-07-19	25,049
2006-08-16	25,060
2006-09-20	68,609
2006-12-20	49,498
2007-03-21	15,810
Total T-bills	249,682

#### INFLATION-LINKED BONDS, OUTSTANDING AMOUNTS, 31 MAY 2006

Maturity Date	Coupon %	Loan no.	SEK m
2008-12-01	4.00	3101	36,649
2012-04-01	1.00	3106	15,910
2014-04-01	-	3001	12,150
2015-12-01	3.50	3105	64,509
2020-12-01	4.00	3102	41,113
2028-12-01	3.50	3103	3
2028-12-01	3.50	3104	43,150
Total inflation-link	213.484		

Debt in SEK

Aaa

AAA

Foreign currency debt

Aaa

AAA

#### T-BILLS, AUCTION DATES

Announcement date	Auction date	Settlement date
2006-06-14	2006-06-21	2006-06-26
2006-06-28	2006-07-05	2006-07-07
2006-07-19	2006-07-26	2006-07-28
2006-08-02	2006-08-09	2006-08-11
2006-08-16	2006-08-23	2006-08-25
2006-08-30	2006-09-06	2006-09-08
2006-09-13	2006-09-20	2006-09-22
2006-09-27	2006-10-04	2006-10-06
2006-10-11	2006-10-18	2006-10-20
2006-10-25	2006-11-01	2006-11-03
2006-11-08	2006-11-15	2006-11-17
2006-11-22	2006-11-29	2006-12-01
2006-12-06	2006-12-13	2006-12-15

#### INFLATION-LINKED BONDS, AUCTION DATES

Announcement date	Auction date	Settlement date
2006-08-31	2006-09-07 1	2006-09-12
2006-09-14	2006-09-21	2006-09-26
2006-08-31	2006-10-05 <sup>2</sup>	2006-10-10
2006-10-12	2006-10-19	2006-10-24
2006-08-31	2006-11-02 <sup>2</sup>	2006-11-07
2006-11-09	2006-11-16	2006-11-21
2006-11-23	2006-11-30	2006-12-05
2006-12-07	2006-12-14 1	2006-12-19

<sup>1</sup> Exchange Auction.

<sup>2</sup> Exchange Auction. Announcement in press release.

Moody's

Standard & Poor's





MATURITY PROFILE, SEK NOMINAL AND INFLATION-LINKED BONDS SEK billion



CENTRAL GOVERNMENT BORROWING REQUIREMENT, 1996-2007 SEK billion



SWEDISH GOVERNMENT BORROWING REQUIREMENT, 12 MONTHS SEK billion



BENCHMARK FOR THE FOREIGN CURRENCY DEBT COMPOSITION





31 May 2006



THE SWEDISH NATIONAL DEBT OFFICE, 21 JUNE 2006 CENTRAL GOVERNMENT BORROWING – FORECAST AND ANALYSIS 2006:2





FOREIGN OWNERSHIP OF GOVERNMENT BONDS AND T-BILLS



MATURITY PROFILE, FOREIGN CURRENCY LOANS EXCLUDING CALLABLE BONDS



CENTRAL GOVERNMENT DEBT EXPOSURE IN FOREIGN CURRENCIES SEK billion %







#### YIELD CURVE, SWEDISH GOVERNMENT SECURITIES

#### HISTORICAL INTEREST RATES



N C I Μ R K



INTEREST RATE SPREAD VS GERMANY - 10-YEAR Basis points



HISTORICAL EXCHANGE RATES TCW – Trade-weighted index 145



EUR/SEK

TRADING VOLUME, SWEDISH GOVERNMENT SECURITIES Total turnover including options and forward contracts, SEK billion





THE SWEDISH NATIONAL DEBT OFFICE, 21 JUNE 2006 CENTRAL GOVERNMENT BORROWING - FORECAST AND ANALYSIS 2006:2









#### NATIONAL ACCOUNTS, PERCENTAGE CHANGE

Supply and demand			2004	2005	2006	2007
Gross domestic product <sup>1</sup>			3.7	2.7	3.7	3.2
Imports			6.4	7.3	9.0	6.9
Household consumption expenditure			1.8	2.4	3.3	3.5
Government consumption expenditure			0.1	0.7	1.6	1.1
Gross fixed capital formation			5.1	8.5	7.0	4.7
Stock building			-0.3	-0.2	0.2	0.0
Exports			10.8	6.4	8.0	6.7
Selected Statistics	Dec 05	Apr 06	2004	2005	2006	2007
CPI. year-on-year		1.5	0.3	0.9	2.0	2.4
Unemployment rate		5.5	6.0	5.9	4.9	4.3
Current account	5.4		6.6	5.9	6.1	6.3

<sup>1</sup> SEK 2,573 billion (current prices 2004).

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

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	Telephone	Reuter page
ABN Amro Bank NV	+46-8 506 155 00	PMAA
Danske Consensus	+46-8 568 808 44	РМСО
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

# GLOSSARY

Benchmark bond ► Bonds in which the Debt Office has undertaken to maintain liquidity. Normally have an outstanding volume of at least SEK 20 billion.

**Bond** ▶ An instrument of debt where the yield is paid in the form of interest.

**Bond market** ► The market for securities with times to maturity longer than a year. Nominal and inflation-linked government bonds are traded in the bond market.

**Break even-inflation** ▶ Break even-inflation is the difference between nominal and real yield at the time of issue. It specifies how large inflation has to be on average in the time to maturity for the cost of an inflation-linked and a nominal loan to be equally large. If inflation exceeds the break-even inflation, the inflation-linked loan will be more expensive for the state and vice-versa.

Capital market > Consists of the credit and stock markets

**Coupon bond** A bond with an annual interest payment.

Credit market > Consists of the money and bond markets.

**Credit risk** ► The risk that the counterparty will not perform its obligations in a transaction. Credit risk includes settlement risk, capital risk, counterparty risk, country risk and systemic risk.

**Derivative instrument** Financial instrument, the price of which depends on another instrument. The most common derivative instruments are options, forward contracts and swaps.

Duration ► Measure of the remaining maturity of a bond taking into consideration both the time to maturity and the coupon rate. A shorter maturity and a higher coupon rate will give a lower duration. Duration can also be viewed as a risk measure, which measures how much the market value of an interest security is affected by changes in the market interest rate.

Financial risks > Consist of market risks and credit risks, Cf *credit* risk.

**Fixed-income market** ► Instruments are traded here that provide a predetermined yield (interest). The fixed-income market consists of the bond and money markets.

Fixed interest rate > Interest rate fixed at a particular level by agreement during the period of agreement.

Float Is the period in connection with payment through a bank when neither the person who sends the money nor the recipient receives interest, which instead goes to the bank processing the payment.

**Floating interest rate** An interest rate that varies during the period to maturity.

Forward (forward contract) ► Agreement on purchase and sale at a specified price at a specified time in the future.

**Government bond** An umbrella term for the bonds issued by the Debt Office on the bond market. Includes both inflation-linked and nominal bonds.

**Inflation** General price increases that decrease the purchasing power of money. Usually measured with the aid of a consumer price index.

**Inflation-linked bond** ► A bond where the holder receives a fixed interest rate and compensation for inflation during the maturity. This means that the yield and the amount invested are protected against inflation, so that any inflation does not reduce the value of the bond during the period of saving.

Interest rate refixing period > The average period until the cash flows provided by the central government debt are to be paid. Cash flows arise when interest and loans fall due for payment

**Issue** Sale of new government securities. Usually takes place by auctions.

Limits > Quantitative limitation of amounts or risks.

Liquidity bills > T-bills with customised times to maturity.

Lottery bond ► Savings form where interest is paid as lottery prizes. The Debt Office normally issues premium bonds two to three times a year.

**Market risk** The risk of unfavourable movements of market prices. Interest rate risk and currency risk are different forms of market risk.

**Nominal bond** ► An investment at a nominal fixed interest rate provides a predetermined amount in kronor on maturity.

**Operating risk** ► The risk of losses that depends on deficiencies in internal processes, human error, defective systems or external events. The concept includes legal risks but not strategic risks.

Money market ► The market for interest-bearing securities with times to maturity of up to a year. T-bills are traded in the money market.

Rating ▶ Is a certificate of, for instance, the ability of company or a country to perform its financial obligations, i.e. a certificate of credit-worthiness.

**Real interest rate** An interest rate, the value of which is protected against inflation, Cf *inflation-linked bond*.

**Reference loan** A reference loan is a benchmark bond traded as a 2, 5 or 10-year bond. Also called super benchmark. The Debt Office concentrates borrowing in these maturities, Cf *benchmark bond*.

**Repo (repurchase agreement)** ► Agreement on sale of a security where the seller at the same time undertakes to buy back the security after a set period for an agreed price. The repo can also be reversed, i.e. a purchase agreement in combination with future sale.

National Debt Savings ▶ National Debt Savings is an account-based bond saving. National Debt Savings is available with floating interest rate, fixed interest rate or inflation-linked fixed interest rate.

Royalty loan ▶ Loan where repayment depends on the amount of sales, manufacture, etc.

**Swap** Agreement between two parties on a swap or exchange of interest payments during a particular period, for instance, an exchange of fixed interest for variable interest.

**T-bill** A short-term security without coupon payments that is issued with maturities up to a year.

**T-bill market** ▶ Trade with the T-bills and bonds that we issue or have issued.

Value at Risk, VaR ► A measure of risk that forecasts anticipated loss level with a given probability during a set period.

The next issue of Central Government Borrowing: Forecast and Analysis will be published on Wednesday 25 October, 2006, at 9.30 am.

The report is published three times a year.

For more information:

Borrowing requirement and government debt:	Lars Hörngren	+46-8-613 47 36 or +46-8-613 47 40
Funding:	Thomas Olofsson	+46-8-613 47 82

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THE SWEDISH NATIONAL DEBT OFFICE