

Ministry of Finance

Update of  
Sweden's convergence programme

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*November 2007*

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## I Introduction

In accordance with the Council's regulation (EC) 1466/97, Sweden submitted its convergence programme in December 1998.<sup>1</sup> The programme was evaluated and approved by the Council during the spring of 1999. In accordance with the Council's regulation, an update of the convergence programme is to be submitted annually and this was carried out during the period 1999–2006. The Council's statement on the update of the convergence programme for 2006 was considered by the Riksdag's EU committee on 23 February 2007. This update has been drawn up in parallel with the Government Budget Bill for 2008, which was presented to the Riksdag on 20 September 2007. The Riksdag's Standing Committee on Finance was informed about the programme on 13 November 2007.

This year's update of the convergence programme is based on the assessment of Sweden's economy contained in the Government Budget Bill for 2008. Forecasting was completed on 7 September 2007.

Since the spring of 2007, saving in the premium pension system has been accounted for in the household sector instead of the general government sector as previously. This change in accounting has been made in accordance with a decision by Eurostat. The change has resulted in a reduction in net lending of around 1 percentage point per year. The previous surplus target of a 2 per cent surplus in public finances over a business cycle has therefore been adjusted to a target of a 1 per cent surplus.

The forecast for GDP growth, like the assessment in the update of the convergence programme for 2006, remains bright. Economic activity has entered a more mature phase in 2007 and GDP growth is forecast to slow compared with 2006. The more mature economic development is also reflected in the composition of demand, in which exports are slowing down, investment growth remains high and household consumption is increasing more rapidly. Overall, GDP is forecast to increase by 3.2 per cent in both 2007 and 2008.

Compared with the updated convergence programme for 2006, the forecast for general government net lending has been substantially adjusted upwards. Despite the transfer of premium pension saving from the general government sector, the forecast for net lending for 2007 has been adjusted upwards by approximately 0.6 per cent of GDP. If premium pension saving is excluded for comparability from the forecast in last year's convergence programme, the upward adjustment is a full 1.7 per cent of GDP.

The surplus target is exceeded by a good margin in accordance with the indicators of target fulfilment (see also Chapter II and Chapter V). However, the scope between the

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<sup>1</sup> Council Regulation (EC) 1466/97 of 7 July 1997 on the strengthening of the surveillance of budgetary positions as well as the surveillance of economic policies.

forecast net lending and the surplus target cannot be utilised in its entirety for reforms. The most important reason is that the economy in the current economic situation might be overheated by further stimulus. There should also be reserves to cope with the next economic downturn. In addition, a buffer is needed for the uncertainties contained in the forecasts.

## **II Economic policy framework and targets**

### **Structural reforms for long-term sustainability**

The focus on structural reforms to strengthen the long-term labour supply, which the government introduced in the Government Budget Bill for 2007, continued in the 2007 Spring Fiscal Policy Bill and in the Government Budget Bill for 2008.

The single largest initiative in the Government Budget Bill for 2008 is stage two of the earned income tax credit, which is targeted at low and medium incomes. The strengthened earned income tax credit increases employment. It will be more profitable to start work and for those already working, the incentives to increase their efforts improve, which increases the number of hours worked. The introduction of the second stage of the earned income tax credit involves a reduction in taxes on earned income of SEK 10.8 billion as from 2008.

Moreover, the incentives to work are being increased by the government's introduction of two additional qualifying days before unemployment benefit can be claimed. Another change linked to unemployment insurance is the government's proposal to amend the rules limiting the possibilities of receiving unemployment benefit part time. The ambition underlying these changes in the unemployment insurance regulations is to increase the incentives to work and to avoid locking in those currently working part time. Further, the government is implementing a change in the financing charge for unemployment insurance funds. The change aims to clarify the linkage between the benefits paid by unemployment insurance funds and the charge paid by members, in order to thereby improve wage formation.

The government also proposes a number of measures to provide more routes from sickness absence back to work. The opportunities for reviewing work capacity during the period of sick leave are being strengthened and the support to those on sick leave to return to the labour market is being improved. The government is introducing special new start jobs, so-called newly recovered jobs, which in most cases mean that the employer can deduct double employer contributions when hiring people who have been on sick leave for a longer period.

The government proposes an extensive literacy and numeracy initiative in the coming years to strengthen the knowledge function of the compulsory school. Increased resources are also proposed to increase the quality of higher education.

A more complete review of the structural reforms focused on by the government is found in Chapter VII.

### **Fiscal policy framework and targets**

In order to create better conditions for long-term sustainable public finances and to avoid short-termism in the budget work, the central government budget process was tightened in the mid-1990s, while an extensive consolidation of public finances was implemented. The driving factor was the economic crisis in the early 1990s, which contributed to rapidly increasing central government expenditure, large deficits in the general government sector and a central government debt that threatened to become unmanageably large.

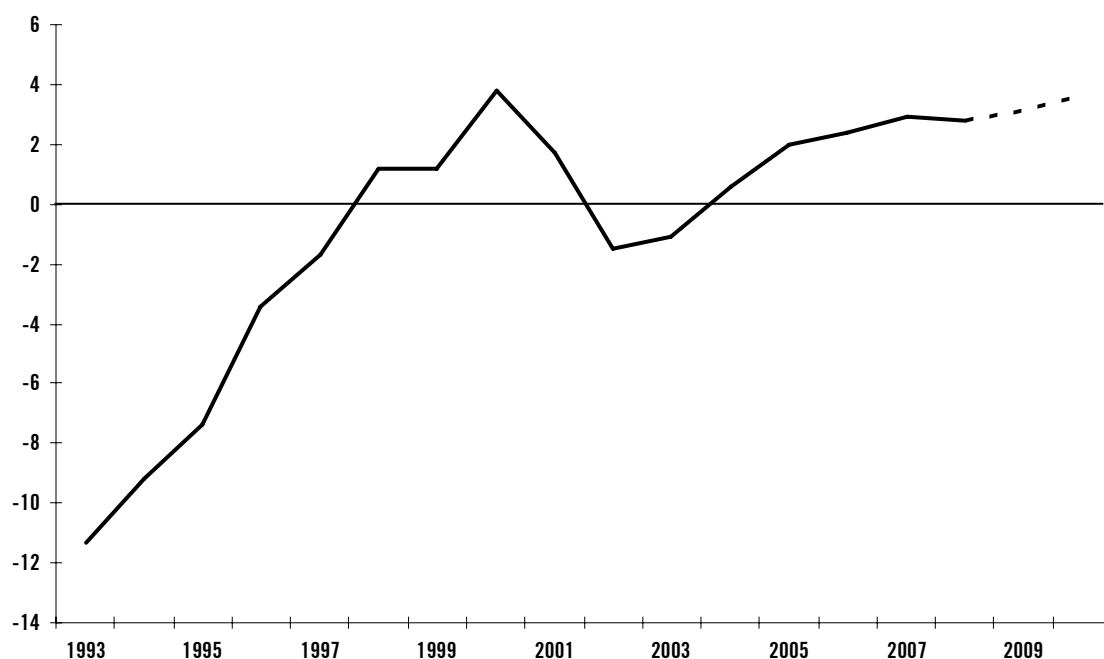
In 1997, a central government expenditure ceiling covering several years was introduced, in order to keep the development of central government expenditure under control in the medium term. This restriction means that so-called ceiling-restricted expenditure, i.e. central government expenditure (excluding interest expenditure) and expenditure in the old-age pension system, must not exceed the expenditure ceiling determined by the Riksdag. When this central government expenditure ceiling was introduced, the starting point was that the ceiling for an individual budget year should be determined three years in advance.

In 2000, a target for general government net lending was introduced, the so-called surplus target. This stipulates that consolidated general government net lending should be 1 per cent on average over a business cycle.<sup>2</sup> In addition, there is a balanced budget requirement for the municipalities, which means that the municipalities should each year budget for at least a balanced outcome. If a municipality does not achieve at least a balanced outcome for an individual year, the municipality has 3 years to correct the deviation.

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<sup>2</sup> Up to and including last year's update of the Swedish convergence programme, the surplus target was 2 per cent of GDP over a business cycle. In 1997, Eurostat, the EU's statistical agency, decided that the new Swedish pension system in its entirety was to be classified as part of the general government sector. In 2004, Eurostat changed its decision, which meant that the premium pension system was no longer to be included in general government net lending as from 2007. For Sweden, this has resulted in a reduction in general government net lending of approximately 1 per cent of GDP. As a result of this statistical change, the target for general government net lending was adjusted from 2 per cent to 1 per cent.

Diagram 1: General government net lending



Source: Statistics Sweden and Ministry of Finance.

Public finances have strengthened appreciably over the years that the framework has been in force (see Diagram 1). The deficits in the 1990s have been replaced by an average surplus equivalent to 1.1 per cent of GDP during the period 2000–2006 (see also Chapter V on public finances). Together with strong economic growth, this has contributed to a sharp reduction in central government debt, measured as a proportion of GDP. General government expenditure and revenues have also declined as a proportion of GDP. The more stringent budget policy targets and the tightened budget process have contributed to a considerable improvement in budget discipline, which has strengthened the control of public finances. This has also facilitated monetary policy and contributed to better conditions for long-term sustainable economic growth. Overall, the experiences of the fiscal policy framework have been favourable to date.

While in these circumstances there are strong reasons to maintain, on the whole, the current framework, there are certain areas that have functioned less well. A central government expenditure ceiling has not always been determined for the third future year. It has also been unclear in which way the expenditure ceiling supports the surplus target. Since the early 2000s, a number of decisions on exceptions from the basic principles for budgeting and accounting for the central government budget have resulted in the expenditure ceiling not having been fully applied in the manner intended from the start. This applied, for example, to the introduction of certain expenditure on the revenue side of the central government budget in the form of tax account credits. This may in the longer term weaken public finances and reduce the credibility of the framework as a whole. Similar views have been put forward by the OECD and the IMF. The Swedish National Audit Office has in a number of audits made recommendations to the

government on improving, for example, the monitoring of the surplus target and the macroeconomic data.

The government has already begun work on improving and strengthening the fiscal policy framework. In the 2007 Spring Fiscal Policy Bill, the government reported its view on which considerations of principle would form the basis for the framework and how fiscal policy should be monitored. An important starting point for this work is that public finances should be able to cope with the strains resulting from an increased proportion of older people in the population. An important objective is also to increase transparency and clarity in fiscal policy. The Riksdag has supported these principles.

### *Surplus target*

The surplus target constitutes Sweden's medium-term objective (MTO) as stated in the Stability and Growth Pact.

The surplus target has been drawn up on the basis of the following objectives:

- Public finances should be sustainable in the long term.
- The goal should be an even distribution of resources between generations.
- Economic efficiency should be promoted through a predictable development of taxes and expenditure.
- There should be adequate margins so that large deficits can be avoided in recessions and in case of a fiscal policy that actively counteracts recessions.

This last point is also in line with the Stability and Growth Pact's requirement that any annual deficit in public finances must not exceed 3 per cent of GDP.

In view of the marked increase in age-related general government expenditure in the future, the government considers that the surplus target of 1 per cent of GDP over a business cycle should be maintained during its term of office and as long as is necessary for the development of public finances in a long-term sustainable manner.

The government has also announced indicators, which it intends to use to monitor the surplus target. A new indicator, the so-called seven-year indicator, was recently introduced (in the 2007 Spring Fiscal Policy Bill) with the aim of evaluating how the announced fiscal policy relates to the target as well as facilitating the assessment of the scope for reforms over the next few years. This indicator is calculated as an average of net lending over seven years, comprising a forecast for the current year and the next three years as well as the outcomes for the preceding three years. Consequently, the indicator looks both backwards and forwards. In order to evaluate the fulfilment of the surplus target after the event, the average of general government net lending from 2000 (the year the target was introduced) up to and including the latest outcome year is also used. Neither of these two indicators takes explicit account of the economic situation, even though the economic effects are to some extent moderated in the average calculations. As a complementary indicator, a measure of structural balance is therefore also used. This is based on cyclically adjusted lending, which has also been adjusted for one-off effects and

certain other temporary effects (such as unusually high tax revenues from capital gains that are not assumed to be captured by the cyclical adjustment).<sup>3</sup>

### *Central government expenditure ceiling*

The main task of the expenditure ceiling covering several years is to provide the conditions for achieving the surplus target. The expenditure ceiling constitutes an important budget policy commitment, which promotes budget discipline and strengthens the credibility of economic policy by preventing temporary revenue from being used to finance permanent expenditure. The expenditure ceiling also underlines the need to prioritise between different expenditure items and to prevent a development in which the tax levy must be gradually raised as a result of inadequate expenditure control.

In the 2007 Spring Fiscal Policy Bill, the government stated that transparency and clarity in the budget process should increase, in order to strengthen the credibility of the expenditure ceiling. An important element in this work is clarifying which principles should form the basis for determining the expenditure ceiling. The government has stated that the following considerations should form the basis for decisions on the level of the expenditure ceiling:

- The starting point should be an assessment of net lending in the local government sector and the old-age pension system as well as the central government revenues resulting from the tax policy aimed at.
- The level should also promote a desirable long-term development of the extent of central government expenditure. The government's view is that central government expenditure should decline somewhat as a proportion of GDP.
- An assessment of economic development should be taken into account, in order to avoid fiscal policy contributing to strengthening cyclical fluctuations, i.e. a pro-cyclical fiscal policy should be avoided.
- The expenditure ceiling should include a well-specified budgeting margin, i.e. a difference between the proposed expenditure ceiling and the estimated ceiling-restricted expenditure, in order to be able to manage various forecast uncertainties and temporary variations in expenditure development under the given rules.

In order to maintain the predictability and stringency of the budget process, and thus provide the conditions for stable expenditure development, the three-year expenditure ceiling has been reintroduced. An assessment of an appropriate central government expenditure ceiling for the third future year will in future be included in Spring Fiscal Policy Bills, as a part of the guidelines for economic policy and budget policy. In the

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<sup>3</sup> The measure of structural balance is also associated with some deficiencies. Apart from the uncertainty of the forecasts for net lending, there is considerable uncertainty around the non-measurable variable of potential GDP.



normal case, this assessment should constitute a proposed expenditure ceiling in the next Government Budget Bill.

It is also essential that the basic principles for budgeting and accounting for central government revenues and expenditure are respected. In brief, this means that the central government budget should include all central government activity (the completeness principle) and that all expenditure and revenues for each individual activity should be evident from the central government budget (the gross principle). A transparent and consistent application of the principles of completeness and gross budgeting strengthens the credibility of the expenditure ceiling and the fiscal policy framework as a whole.

However, it may be difficult to adhere to these principles without exception. Any deviations should in such cases be well justified and the possibility of comparability over time should then be secured. Technical adjustments of a previously determined expenditure ceiling are justified in connection with a change in institutional demarcation and assignment of responsibilities in the general government sector, which only affects the allocation of expenditure between different sectors. Consequently, adjustments of the central government expenditure ceiling should be made in connection with the transfer of responsibility for a general government commitment, for example, from the central government sector to the local government sector. Technical adjustments may also be caused by changes in budgetary method, i.e. as a result of changes in accounting principles etc. An essential starting point is that the same principles should form the basis for both increases and reductions in the central government expenditure ceiling.

#### *A fiscal policy council should examine policy*

An important condition for confidence in the fiscal policy framework and its long-term sustainability is that the fiscal policy targets are monitored in a clear manner by external assessors. During 2007, the government has therefore established a fiscal policy council, in order to increase transparency and insight into fiscal policy. This fiscal policy council has been commissioned to annually monitor, among other things, the fulfilment of the basic fiscal policy targets. The council will also examine the clarity of the economic government bills as well as the quality of the data on which the government bases its assessments. In addition, the council should assess whether development is in line with good long-term sustainable growth and leads to long-term high sustainable employment. The council should also promote increased public debate in society about economic policy, thereby improving the general public's opportunities for demanding accountability.

#### *Ongoing work to improve and strengthen the framework*

The government's work on strengthening the fiscal policy framework is ongoing and further proposals will be presented during its term of office. One important task in this ongoing work is considering which target formulations are most appropriate in the future for securing the long-term sustainability of public finances. Another important element of this work is the development of methods and models, which can form the basis for analysis and decisions on fiscal policy in the short and long term. Work is already in progress at the Ministry of Finance to further develop long-term scenarios, which aim to

show, among other things, the effects of the demographic trend on the economy and public finances.

The considerations and the assessments presented by the government regarding the formulation of the fiscal policy framework also make partially new demands on the decision-making data provided to the Riksdag. Continuous development work is therefore in progress to deepen and improve the content of both the Spring Fiscal Policy Bill and the Government Budget Bill in various respects. Clear and transparent decision-making data are an important condition for the fiscal policy council's ability to monitor the fiscal policy pursued.

#### *The Spring Fiscal Policy Bill focuses on long-term policy*

The government considers that the main purpose of the Spring Fiscal Policy Bill should be to provide a relevant and comprehensive basis for the guidelines on economic policy and budget policy in the medium and long term. However, experiences since 2002 show that the time perspectives in Spring Fiscal Policy Bills has been shortened, while more details than guidelines have been presented.

The government therefore intends henceforth to mainly report in the Spring Fiscal Policy Bill on economic policy frameworks and targets, forecasts and scenarios for the Swedish economy at an overall level, the development, sustainability and quality of public finances as well as the structural policy stance. An assessment of the central government expenditure ceiling for the third future year will be included in the guidelines for budget policy. Detailed proposals for reforms in various policy areas should instead be included in the Government Budget Bill or in separate government bills.

The government's intention is thus to prepare the content of the Spring Fiscal Policy Bill in a way that better corresponds with the Riksdag's intentions, i.e. data that could form the basis for assessments of national economic development and a comprehensive discussion of the economic policy stance in the medium and long term.

#### **Monetary policy target**

In the act regulating the status of the Riksbank, which came into force in 1999, it is laid down that the objective of monetary policy is to maintain a stable monetary value. The act also stipulates that independent monetary policy decisions are to be made by an Executive Board of the Riksbank. The Riksbank has defined the target as 2 per cent inflation measured by the consumer price index (CPI), with a tolerance of  $\pm 1$  percentage point. Monetary policy is also guided by various measures of underlying inflation. There is no single measure of inflation that at each given point in time always shows the monetary policy required. Monetary policy takes effect with a time lag and is normally aimed at achieving the inflation target within two years. The two-year horizon also provides scope for taking account of developments in the real economy. In exceptional cases, the Riksbank may allow inflation adjustments to take somewhat longer than two years, but this will then be clearly clarified in connection with the monetary policy decisions.

Since the beginning of 2007, the Riksbank has presented regular forecasts for the interest rate trend, i.e. the repo rate trend. The previous method, whereby the Riksbank only announced an unchanged repo rate trend, gave no clear guidance on the Riksbank's view of interest rates in the long term. The general public's and the market's expectations of the future interest rate trend are at least as important for the impact of monetary policy on the economy as expectations around the decision on the current level of interest rates.

The result of the referendum in September 2003 on the introduction of the euro resulted in no changes in the monetary and exchange rate policy regime, which is fixed. In exchange rate policy, the government decides on the exchange rate system, while the Riksbank is responsible for practical application, such as which central rate applies in a fixed exchange rate system. Sweden's experience of the current monetary policy regime, with an inflation target and a floating exchange rate, is very favourable. Pegging the Swedish krona to ERM2 is not under consideration.

### **III Economic policy**

#### **Budget policy**

##### *Budget policy in the Government Budget Bill for 2008*

In the Government Budget Bill for 2008, measures are proposed or announced on the expenditure and revenue sides of the central government budget, which result in public finances weakening by just over SEK 3 billion in 2008 (0.1 per cent of GDP), compared with the level in the 2007 Spring Fiscal Policy Bill (see Table 1).

Among the proposed reforms on the budget's expenditure side, are mainly measures focused on increasing the labour supply and reducing ill health (see also Chapter VII for a more detailed account of structural reforms). On the central government budget's revenue side, the government also proposes a number of measures to strengthen the labour supply. The single largest measure is a further increase in the earned income tax credit, targeting households with low and medium earned income. Moreover, further initiatives are proposed for people who have been outside working life for a long period. Further, the government is implementing a change in the financing charge for unemployment insurance funds. This change aims to clarify the linkage between the benefits paid by unemployment insurance funds and the charge paid by members.

The expenditure and revenue reforms proposed in the Government Budget Bill for 2008 have largely been financed. This is important, not least in view of the strained resource situation in the economy. Table 1 shows the indirect effects arising on the revenue side of the central government budget due to the expenditure and revenue reforms now proposed or announced, as well as the increased scope arising in 2008 as a result of targeted repayments of road and rail loans in 2007 totalling SEK 10 billion. The repayments aim to release funds in the short and long term for improving the road and rail networks.

**Table 1: Reforms proposed for 2008 in relation to the 2007 Spring Fiscal Policy Bill***Change in relation to the 2007 Spring Fiscal Policy Bill.*

SEK billion	2008
<b>Expenditure changes<sup>1</sup></b>	
Increased appropriations	4.0
Reduced appropriations	-8.6
<b>Total appropriation changes (reduction in appropriations)<sup>1</sup></b>	<b>-4.6</b>
<b>Revenue changes<sup>2</sup></b>	
Reduced taxes	-3.0
Other revenue reforms	-1.5
<b>Total revenue changes, (gross)</b>	<b>-4.5</b>
<b>Expenditure and revenue reforms, gross</b>	<b>0.1</b>
Indirect effects on the revenue side as a result of reforms <sup>3</sup>	-2.2
<b>Expenditure and revenue reforms, net</b>	<b>-2.1</b>
Increased scope for infrastructure investment	-1.2
<b>Change in general government net lending</b>	<b>-3.3</b>

<sup>1</sup> A minus sign indicates reduced expenditure. Appropriation changes as a result of the macroeconomic development, volume changes in transfer payment systems etc. or appropriation changes justifying a technical adjustment of the central government expenditure ceiling are not included.

<sup>2</sup> A minus sign indicates reduced revenues.

<sup>3</sup> Including changed tax revenues as a result of reforms affecting the transfer payment systems.

Source: Ministry of Finance.

### *Overall budget policy for 2008*

Table 2 illustrates the total budget effects in relation to the previous year, as a result of previously decided reforms or those proposed and announced in the Government Budget Bill for 2008.

The table shows that the estimated expenditure increases, in relation to the previous year, in areas such as health care, education, university research and grants to municipalities. Expenditure declines in other areas, such as national economy and financial administration, financial security in event of illness and disability, financial security for families and children as well as communications.

On the revenue side, the single largest reform is the extended earned income tax credit, which is being introduced as from 1 January 2008. Tax revenues also decline due to a proposal for reduced social security contributions for certain jobs in the service sector, as well as due to the halved social security contributions for 18–24 year olds having a full impact in 2008.

Measures to increase general government revenues have also been decided and announced. In order to ensure that certain necessary and desirable supply reforms do not contribute to too strong demand growth, certain tax changes have been required in areas that have not been considered to affect permanent employment growth or the will to invest. An increase in tax on carbon dioxide, alcohol and tobacco as from 2008 has therefore been deemed reasonable. The positive effects of these tax rate changes on the environment and public health are significant as well.

Expenditure in the central government budget for 2008 increases as a result of discretionary decisions by a total of SEK 3.5 billion, while revenue declines by SEK

4.4 billion, compared with 2007. Overall, reforms totalling SEK 7.9 billion are thus proposed for 2008.

**Table 2: Decided and proposed expenditure and revenue reforms for 2008**

SEK billion

<b>Revenue reforms</b>	<b>-4.4</b>
Taxes on labour	-18.5
Taxes on capital	0.1
Tax on consumption and input goods	7.5
Indirect effects of tax reforms	2.8
Other revenue reforms	3.8
<b>Expenditure incl. loan financing</b>	<b>3.5</b>
Administration and judicial system, UO 1-4	-0.8
International cooperation and development aid, UO 5 and 7	0.0
Defence, preparedness and vulnerability, UO 6	-0.3
Migration, UO 8	-0.2
Health care and social care, UO 9	2.8
Financial security in event of illness and disability, UO 10	-3.8
Financial security for families, children and old people, UO 11-12	-1.0
Labour market, UO 13	-0.6
Study allowance, UO 15	-0.3
Education, research and culture, UO 16-17	1.6
Social planning, UO 18	-0.7
Environment, UO 20	0.0
Energy, UO 21	0.1
Communications, UO 22 <sup>1</sup>	-9.3
Agriculture, forestry and business sector, UO 23	-0.3
General grants to municipalities, UO 25	4.5
Other, UO 14, 19, 24 and 27	0.4
Total appropriation changes	-7.8
Loan-funded infrastructure investment <sup>1</sup>	11.4
<b>Total reforms<sup>2</sup>, revenue and expenditure 2008</b>	<b>-7.9</b>

<sup>1</sup> In 2008, appropriations under expenditure area 22 decline by SEK 10 billion compared with 2007, as a result of SEK 10 billion having been allocated to a supplementary budget, in order to implement extra repayments of infrastructure loans on a one-off basis in 2007. For the same reason, the loan-funded part increases substantially in 2008, compared with 2007.

<sup>2</sup> A minus sign indicates that net lending declines.

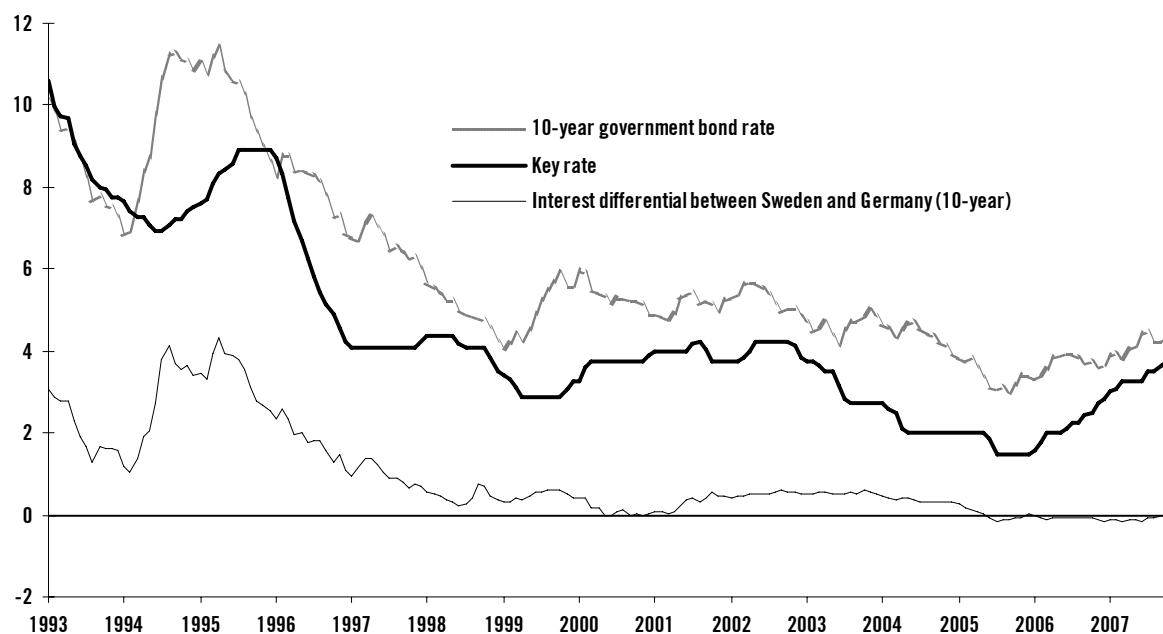
Source: Ministry of Finance.

## Monetary policy

Substantial cuts in the key rate were implemented during the period 2003 to 2005. In 2003, the Riksbank lowered the key rate by a total of 100 points to 2.75 per cent in the light of weak Swedish and global economic development as well as weak inflationary pressure. In 2004, the Riksbank lowered the key rate by a further 75 points to 2.00 per cent as a result of increasingly low inflation. In June 2005, the key rate was lowered by a final 50 points to a historic low of 1.50 per cent, based on the assessment that inflationary pressure would remain weak for the next two years. In 2006, the Riksbank began raising the key rate, which was raised from 1.50 per cent to 3.00 per cent during the year. In 2007, the Riksbank has continued to tighten monetary policy, since underlying inflationary pressure is expected to rise in a few years' time. The key rate has been raised

by 1 percentage point to 4.00 per cent during the course of 2007. Despite strong economic growth, inflation is low and underlying inflation is below the Riksbank's target. However, underlying inflation is expected to rise in the second half of 2007 and the Riksbank has announced that the repo rate will gradually be raised further.

**Diagram 2: Interest rates in Sweden**



Source: Reuters Ecowin.

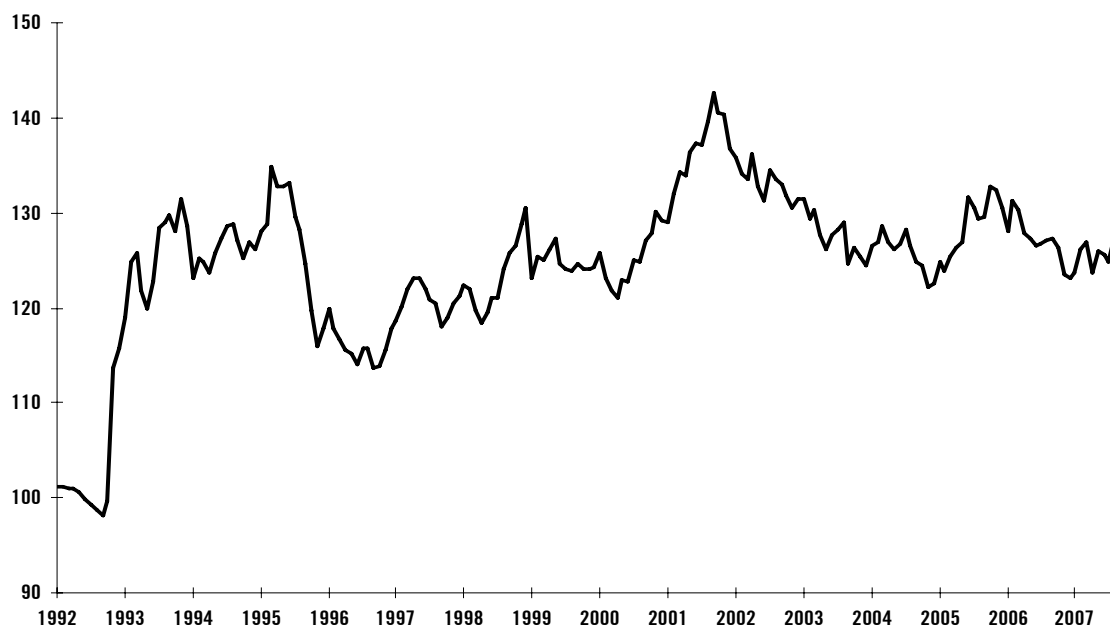
### *Market rates*

Increased macroeconomic stability with lower inflation and stronger public finances formed the basis for the falling interest rate trend during the 1990s. The economic upturn in the late 1990s led to rising long rates. Negative economic signals and nervousness in the financial markets led to falling rates from the second half of 2000. This falling interest rate trend continued until the autumn of 2005, apart from periods with strong economic signals. Increasingly low inflation is one reason for the interest rate trend during the period 2000–2005. The Swedish 10-year government bond yield was below 3 per cent in the autumn of 2005, following a decline of more than 1 percentage point since the year-end 2004/05.

The Swedish 10-year bond yield has risen since the autumn of 2005 and the trend has been in line with that of international bond yields. Swedish long rates rose in the spring of 2007 before falling back sharply during the summer. An important reason for this is the financial turbulence linked to the problems on the US housing market. This has resulted in high demand for Swedish government bonds, an increase in price and a fall in yield. In the light of the relatively strong economic activity, bond yields are at relatively low levels. Swedish bond yields are forecast to rise in 2007 and 2008 in pace with a reduction in available resources in the economy and tightening monetary policy.

The interest rate differential between Sweden and Germany has shown a declining trend for a long time. Stable Swedish public finances, as well as a narrowed differential between key rates in Sweden and the euro zone, have contributed to this trend. Since May 2005, the Swedish 10-year bond yield has been lower than the German equivalent, which is unusual in a historical perspective. This is mainly due to the lower key rate in Sweden than in the euro zone during this period, but it is also due to considerable demand for long Swedish bonds. In 2008, Swedish government bond yields are expected to be at the same levels as their German equivalents.

**Diagram 3: The Swedish krona against the TCW index**



Source: Reuters Ecowin.

### *The Swedish krona*

Since November 1992, Sweden has had a floating exchange rate, which means that the exchange rate is not a target variable for monetary policy. With an explicit inflation target and a floating exchange rate, the value of the krona is determined, among other things, by interest rate margins, in addition to fundamental factors such as terms of trade and relative productivity growth. Following a considerable depreciation of the krona in 2001, which can largely be explained by financial factors, the krona began to strengthen during the autumn of 2001. The krona stabilised increasingly during 2002 and was relatively stable during 2003 and 2004. The krona weakened during 2005, which was largely a result of lower Swedish bond yields and a lower key rate than in the euro zone. The krona strengthened against both the US dollar and the euro during 2006, as a result of expectations of tighter monetary policy. The krona has strengthened against the US dollar but weakened against the euro during 2007. Particularly the development against the euro was volatile during the summer, which may be explained by the turbulent situation in the financial markets, which has contributed to a fall in the demand for kronor. The positive underlying factors, such as the current account surplus, stable public finances and strong economic growth, are expected to contribute to an appreciation of the krona in the future.

## IV Forecasts and scenarios for the Swedish economy

### International developments

Global growth remains robust, but is expected to slow somewhat over the coming years. In the base scenario, the slowdown in the United States is not forecast to be too substantial and global growth is maintained by continued strong growth in Asia and Europe. However, there is a risk that the US slowdown is more substantial than anticipated.

Global GDP growth is estimated at 5.1 per cent in 2007 and is forecast to average 4.7 per cent per year during the period 2008–2010.

### Growth in Sweden

The Swedish economy is now in its fourth year of strong growth. Economic activity has entered a more mature phase in 2007 and GDP growth is forecast to slow compared with 2006. The more mature economic development is also reflected in the composition of demand, in which exports are slowing down, investment growth remains high and household consumption is increasing more rapidly. Overall, GDP growth is forecast at 3.2 per cent in both 2007 and 2008. GDP is forecast to grow by 2.5 per cent in 2009 and 2.2 per cent in 2010.

**Table 3: Demand and output**

*Annual percentage change in volume*

	SEK billion 2006 <sup>1</sup>	2006	2007	2008	2009	2010
Household consumption expenditure	1,338	2.8	3.0	3.8	3.2	2.3
General government consumption expenditure	759	1.8	1.6	1.0	0.3	0.1
Gross fixed capital formation	507	7.9	9.4	4.6	3.5	3.4
Change in stocks <sup>2</sup>	0	0.0	0.2	0.0	0.0	0.0
Exports	1,451	8.7	5.3	6.0	6.0	6.0
Imports	1,225	7.9	7.4	6.5	6.5	6.3
<b>GDP</b>	<b>2,832</b>	<b>4.2</b>	<b>3.2</b>	<b>3.2</b>	<b>2.5</b>	<b>2.2</b>
<b>GDP, calendar-adjusted</b>	-	<b>4.5</b>	<b>3.4</b>	<b>3.0</b>	<b>2.5</b>	<b>1.9</b>

<sup>1</sup> In current prices.

<sup>2</sup> Contribution to GDP growth.

Sources: Statistics Sweden and Ministry of Finance.

### Household consumption

The conditions for household consumption are very favourable. Household disposable income is expected to increase by 5.4 per cent this year. The strong development of household income mainly has two explanations. First, the labour market is strong. Both the number of hours worked and hourly wages are increasing more rapidly this year than in 2006, which overall results in a 7.1 per cent increase in household earned income. Second, income taxes are declining as a result of the introduction of the earned income tax credit from the year-end. Household real disposable income is expected to increase by 4.0 per cent next year, which is a high growth rate in a historic perspective.



Household consumption increased at a favourable rate during the first half of 2007. The increase in household consumption was 2.5 per cent, compared with the same period last year. During the remainder of the forecast period, the very favourable conditions for household income are expected to lead to consumption accelerating. To sum up, household consumption expenditure is forecast to increase by 3 per cent in 2007 and by 3.8 per cent in 2008.

**Table 4: Contributions to GDP growth**

*Percentage points*

	2006	2007	2008	2009	2010
<b>Final domestic demand</b>	<b>3.2</b>	<b>3.5</b>	<b>3.0</b>	<b>2.3</b>	<b>1.8</b>
Household consumption expenditure	1.3	1.4	1.8	1.5	1.1
General government consumption expenditure	0.5	0.4	0.3	0.1	0.0
Gross fixed capital formation	1.4	1.7	0.9	0.7	0.7
<b>Change in stocks</b>	<b>0.0</b>	<b>0.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Net exports</b>	<b>1.0</b>	<b>-0.5</b>	<b>0.3</b>	<b>0.2</b>	<b>0.3</b>
Exports	4.2	2.7	3.2	3.2	3.3
Imports	-3.2	-3.2	-2.9	-3.0	-3.0
<b>GDP</b>	<b>4.2</b>	<b>3.2</b>	<b>3.2</b>	<b>2.5</b>	<b>2.2</b>

Sources: Statistics Sweden and Ministry of Finance.

## Investment

Gross fixed capital formation has risen at an accelerating rate since 2003 and the strong investment activity has spread to an ever-increasing area of the economy. Investment grew by 7.9 per cent in 2006 and growth increased further in the first half of this year. Particularly investment in the energy sector and industry contributed to this strong growth, but investment in the wholesale and retail trade and household services also increased substantially. Continued high capacity utilisation and favourable financial conditions in the corporate sector will drive investment growth in the future. The government's policy, which is expected to increase employment and therefore the capital investment requirements of firms, also contributes to continued strong investment growth. Overall, total investment in the Swedish economy is estimated to increase by 9.4 per cent this year and by 4.6 per cent next year. During the period 2009–2010, investment is forecast to increase by 3.5 per cent per year. Investment is forecast at 19.2 per cent of GDP towards the end of 2010, which would be the highest level since 1991.

## Wages, labour market and inflation

Wage increases have been low over the past few years. This has largely been due to plenty of available labour. Consequently, it has been relatively easy for employers to recruit suitable staff. However, available labour in the economy has recently declined and an increasing number of firms are reporting a labour shortage. As employment continues to increase in the future, the shortage of suitable labour is forecast to gradually increase, which is expected to lead to a rise in wage growth. The outcomes of wage negotiations,

which result in wage growth rising rapidly this year, also contribute to the more rapid wage increases.

Changes in labour market policy and the reforms that have been implemented and announced over the past year contribute to an increase in employment and labour. The demand for labour is expected to continue developing at a favourable rate during the rest of this year and next year. Several indicators suggest that employment will increase rapidly in the immediate future. Strong employment growth is expected to go hand in hand with a rapid increase in the labour force in 2007 and 2008.

The moderate wage trend over the past few years, combined with strong productivity growth, has kept firms' labour costs down, which has helped to dampen domestic inflation. However, domestic inflation has risen since the end of last year. Increased interest expenditure and the rising prices of imported goods have led to a relatively rapid rise in the consumer price index (CPI) recently. The increasing wage rises in the future, combined with more subdued productivity growth, will further increase domestic inflationary pressure. However, a stronger krona and falling oil prices are expected to have a dampening effect on inflation in the next few years.

#### **Foreign trade and the current account balance**

At the beginning of the year, demand for Swedish export goods slowed in pace with the slowdown in global investment activity. Above all, weaker US economic activity has had a restraining effect on Swedish export growth.

Exports of services have increased in importance and now account for approximately one-quarter of Swedish exports. This trend increase in the services content of Swedish exports is expected to continue. Strong but somewhat declining growth is expected in future years. One factor that suggests somewhat slower growth in exports of services is the stronger krona.

Imports grew strongly during the first half of this year, compared with the equivalent period of 2006. Above all, imports of services have grown strongly, while imports of goods have grown somewhat more weakly. Following a temporary slowdown in early 2007, exports of goods are forecast to increase at a favourable rate during the second half of 2007, which is expected to increase the demand for imports. At the same time, household consumption is accelerating, contributing to increased imports in the second half of 2007 and 2008. Moreover, stockbuilding of input goods is forecast in industry and a relatively large part of this is expected to be met through increased imports. The above factors lead to rapid growth in imports of goods in the future.

Overall, the current account surplus is estimated at 7.3 per cent of GDP this year and 7.4 per cent next year, before increasing gradually to 7.8 per cent of GDP in 2010.

**Table 5: Selected statistics<sup>1</sup>***Percentage change, unless otherwise stated*

	2006	2007	2008	2009	2010
CPI, Dec-Dec	1.6	3.0	2.7	2.9	2.2
HICP, Dec-Dec <sup>2</sup>	1.4	1.7	2.7	2.5	2.1
UND1X, Dec-Dec	1.2	1.4	2.2	2.5	2.1
Import price deflator	3.5	0.0	-0.6	0.6	1.7
Export price deflator	2.7	1.6	-0.4	1.2	2.0
GDP deflator	1.8	3.0	2.6	3.0	2.7
Increase in hourly wages <sup>3</sup>	3.4	4.4	5.1	4.9	4.2
Number of employed	1.8	2.3	1.2	0.3	-0.2
Open unemployment <sup>4</sup>	5.4	4.4	4.0	4.1	4.3
Labour market policy programmes <sup>4</sup>	3.0	2.0	1.9	1.9	1.9
Total unemployment	8.4	6.5	5.9	6.0	6.2
Regular employment ratio, aged 16-64	73.5	74.9	75.6	75.8	75.6
Regular employment ratio, aged 20-64	77.7	79.2	80.1	80.3	80.0
Labour productivity <sup>5</sup>	3.1	0.6	1.7	2.2	1.7
Current account balance <sup>6</sup>	7.2	7.3	7.4	7.6	7.8
Wage bill (incl. collective charges)	3.7	7.0	3.3	5.1	4.0
Wage bill (incl. collective charges) per employee	1.9	4.6	2.1	4.8	4.2
Real disposable income	2.2	5.4	4.0	2.5	1.8
Saving ratio <sup>8</sup>	2.9	5.1	5.2	4.6	4.1

<sup>1</sup> See also Appendix C for supplementary variables and longer time series where appropriate.<sup>2</sup> In 2009 and 2010, HICP is assumed to follow UND1X.<sup>3</sup> Definition in accordance with the National Accounts.<sup>4</sup> Per cent of labour force.<sup>5</sup> Calendar-adjusted.<sup>6</sup> Per cent of GDP.<sup>7</sup> The wage bill (incl. collective charges) amounted to SEK 354,200 per employee in 2006.<sup>8</sup> Per cent of disposable income. Own saving, i.e. excluding saving in pension fund reserves or the premium pension system.

Sources: The Riksbank, Statistics Sweden, the National Mediation Office and the Ministry of Finance.

## Medium-term scenario – developments in 2009 and 2010

In the longer term, the indicators reflecting the current economic situation provide less and less guidance in the assessment of future economic development. The estimate for 2009 and 2010 is therefore based on more fundamental assessments of the level of current resource utilisation and the level of anticipated potential growth.

Strong economic activity and the resulting high demand for labour are expected to lead to a further rise in resource utilisation this year and next year. In other words, actual employment is rising more rapidly than potential employment. Resource utilisation in the labour market is therefore expected to be relatively high in 2008. The employment gap is forecast to average 1.2 per cent next year, which means that the employment level is higher than is compatible in the long term with the Riksbank's inflation target.

The reforms that have been implemented and announced to improve the functioning of the labour market contribute to a sharp increase in potential employment and potential GDP during the period 2007–2010. Consequently, resource utilisation in 2008 and in subsequent years will not be as high as it would have been in the absence of structural reforms. Nevertheless, resource utilisation will drive up wage growth to a level that is not compatible with an economy in equilibrium, and the underlying inflation rate, measured

by UND1X, is forecast to be just above the Riksbank's inflation target in both 2009 and 2010. The relatively high wage increases and the tighter monetary policy lead to economic growth and the demand for labour slowing. GDP therefore increases more slowly than potential GDP in both 2009 and 2010. The same applies to employment, which only increases weakly in 2009 and falls in 2010. Resource utilisation therefore declines and is expected to reach a long-term sustainable level in 2010.

**Table 6: Resource situation**

	2006	2007	2008	2009	2010
GDP gap <sup>1</sup>	0.9	0.6	0.9	0.6	0.0
of which					
Employment gap	-0.6	0.6	1.2	0.7	0.0
Productivity gap	1.7	0.1	-0.1	0.0	0.0
Average hours worked gap	0.0	0.0	0.0	0.0	0.0

<sup>1</sup> If the GDP gap is calculated according to the method referred to in EU contexts as the jointly agreed method, the GDP gaps for the period 2006–2010 are instead 1.0, 0.9, 1.0, 0.7 and 0.2, according to the estimates made by the Ministry of Finance. The development and size of the GDP gaps are consequently very similar to those calculated according to the method used by the Swedish Ministry of Finance.

Sources: Statistics Sweden and Ministry of Finance.

## V Public finances

### Accounting principles

Reporting of general government net lending in this section as well as in the Budget Bill for 2008 follows EU regulations for the National Accounts (ESA 95). As a result, revenue and expenditure are reported in the established formats used by both the Ministry of Finance and the National Institute of Economic Research (NIER). This accounting principle is slightly different from the one used by the EU for the surveillance of public finances in connection with the Excessive Deficit Procedure (EDP) and the Stability and Growth Pact (SGP).<sup>4</sup>

**Table 7: General government finances according to ESA 95 and EDP**

*Per cent of GDP*

	2006	2007	2008	2009	2010
<b>ESA 95 and BB08</b>					
Revenue	55.2	54.1	53.2	52.6	52.4
Expenditure	52.8	51.2	50.4	49.5	48.9
Net lending	<b>2.4</b>	<b>2.9</b>	<b>2.8</b>	<b>3.1</b>	<b>3.6</b>
<b>EDP and SGP</b>					
Revenue	57.5	56.3	55.5	54.9	54.6
Expenditure	55.0	53.3	52.6	51.8	51.1
Net lending	<b>2.5</b>	<b>3.0</b>	<b>2.8</b>	<b>3.1</b>	<b>3.6</b>

Note: BB08 = Budget Bill for 2008.

Sources: Statistics Sweden and Ministry of Finance.

A more detailed account of general government finances according to EDP is provided in Table C.2 in Appendix C.

<sup>4</sup> Unlike ESA 95, these contexts include the effect of swaps on interest flows in net lending, while revenue and expenditure are defined slightly differently.

## The development of public finances

This year, tax cuts contribute to a substantial reduction in revenue, expressed as a percentage of GDP. At the same time, expenditure is declining even more and net lending is estimated to increase to 2.9 per cent of GDP.

**Table 8: General government finances**

*Per cent of GDP*

	SEK billion 2006	2006	2007	2008	2009	2010
<b>Revenue</b>	<b>1,562</b>	<b>55.2</b>	<b>54.1</b>	<b>53.2</b>	<b>52.6</b>	<b>52.4</b>
Taxes and charges	1,410	49.8	48.4	47.7	47.3	47.2
Capital income	63	2.2	2.3	2.2	2.2	2.2
Other revenue	90	3.2	3.4	3.3	3.2	3.1
<b>Expenditure</b>	<b>1,495</b>	<b>52.8</b>	<b>51.2</b>	<b>50.4</b>	<b>49.5</b>	<b>48.9</b>
Transfer payments	597	21.1	19.8	19.3	18.9	18.8
Consumption	759	26.8	26.6	26.4	26.1	25.8
Investment	85	3.0	2.9	2.9	2.9	2.8
Interest expenditure	54	1.9	1.9	1.8	1.6	1.4
<b>Net lending</b>	<b>67</b>	<b>2.4</b>	<b>2.9</b>	<b>2.8</b>	<b>3.1</b>	<b>3.6</b>
<i>Primary net lending</i>	<i>58</i>	<i>2.1</i>	<i>2.5</i>	<i>2.3</i>	<i>2.5</i>	<i>2.9</i>
<b>Consolidated gross debt</b>	<b>1,331</b>	<b>47.0</b>	<b>39.7</b>	<b>34.8</b>	<b>29.8</b>	<b>24.5</b>
<b>Net debt</b>	<b>-444</b>	<b>-15.7</b>	<b>-17.7</b>	<b>-19.7</b>	<b>-21.9</b>	<b>-24.4</b>

Sources: Statistics Sweden and Ministry of Finance.

Next year, further tax cuts and restrained expenditure growth in the central government budget contribute to a continued reduction in general government revenue and expenditure as a percentage of GDP. Net lending is estimated at 2.8 per cent of GDP. In 2009 and 2010, net lending will strengthen gradually, as a result of expenditure falling more rapidly than revenue, given previous decisions and the proposed fiscal policy.

## Allocation of net lending between sectors

This section describes the allocation of net lending between the sub-sectors of the general government sector. A summary of net lending in other sectors (household, corporate and abroad) is to be found in Appendix C.

**Table 9: Net lending and the central government budget balance**

*Per cent of GDP*

	2006	2007	2008	2009	2010
<b>General government sector</b>	<b>2.4</b>	<b>2.9</b>	<b>2.8</b>	<b>3.1</b>	<b>3.6</b>
Central government	0.9	1.6	1.8	2.4	3.2
Old-age pension system	1.1	0.9	0.8	0.5	0.3
Local government sector	0.4	0.3	0.3	0.2	0.1
Central government budget balance	0.6	4.5	2.8	3.5	4.2
Central government debt	43.1	35.6	30.7	25.6	20.2

Sources: Statistics Sweden and Ministry of Finance.

In 2007, general government net lending consists of a central government surplus of 1.6 per cent of GDP, while the old-age pension system and the local government sector

show surpluses equivalent to 0.9 per cent of GDP and 0.3 per cent of GDP respectively (see Table 9). All sectors also show surpluses during the period 2008–2010. Net lending in the central government sector increases gradually during the period, while net lending in the old-age pension system declines continuously as a result of increased pension payments (net lending in the old-age pension system is estimated to show a deficit around 2015). Net lending in the local government sector declines somewhat but remains positive throughout the forecast period.

### **Net financial wealth and consolidated gross debt**

At the end of 2006, general government financial assets exceeded liabilities by SEK 444 billion, equivalent to 15.7 per cent of GDP. This positive financial position should be seen in the light of assets of SEK 862 billion in the pension system's buffer funds (National Pension Funds), which is equivalent to 30.4 per cent of GDP. General government capital income in the form of interest and dividends also exceeds interest expenditure. The consolidated gross debt amounted to 47 per cent of GDP, which is considerably below the EMU reference value of 60 per cent of GDP. The surpluses lead to a continued strengthening of the general government sector's net financial position. Moreover, gross debt is reduced as a result of the planned divestments of state shareholdings of SEK 50 billion per average per year during the period 2007–2010. Consolidated gross debt is estimated to be equivalent to 24.5 per cent of GDP at the end of 2010.

### **Indicators of target fulfilment**

Fiscal policy is guided by two medium-term targets (see also Chapter II). The surplus target determined by the Riksdag means that general government net lending should amount to 1 per cent of GDP on average over a business cycle. In addition, the total expenditure of central government and the old-age pension system should be below the expenditure ceiling, which is determined three years in advance. The expenditure ceiling system was introduced in 1997 and the surplus target for the general government sector has been in force since 2000.

#### *Seven-year indicator*

An important indicator for an assessment as to whether the proposed fiscal policy is in line with the surplus target consists of a seven-year moving average of net lending<sup>5</sup>. This average is adjusted for major well-defined one-off effects<sup>6</sup>.

Since the next three years are included in the average, which is fiscal policy's medium-term time frame, such an indicator contributes to the discussion about fiscal policy

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<sup>5</sup> The seven-year average is calculated on the basis of the three previous years and the next three years. This indicator was presented for the first time in the 2007 Spring Fiscal Policy Bill.

<sup>6</sup> One-off effects in 2004 and 2005 consist of increased tax revenues, due to the reversal by some companies of all or parts of their transfers to tax allocation reserves for taxation. The one-off effect in 2008 arises due to new rules for VAT on construction, which temporarily increase VAT receipts by SEK 10 billion.

stance. For 2007, the indicator's value is 2.3 per cent of GDP (the average for the years 2004–2010).

**Table 10: Seven-year indicator**

*Per cent of GDP*

	2004	2005	2006	2007
Average as per BB2008	0.9	1.0	1.6	2.3

Note: BB2008 = Budget Bill for 2008.

Source: Ministry of Finance.

### *Structural balance*

In order to assess whether net lending in individual years is in line with the target, structural balance may also be used as a supplementary indicator. This indicator consists of net lending adjusted for cyclical variations in general government revenue and expenditure as well as for other temporary effects. The estimate is based on the assessment that a 1 percentage point change in the GDP gap has on average an impact on general government net lending of 0.55 per cent of GDP.

**Table 11: Structural surplus in public finances**

*Per cent of GDP*

	2006	2007	2008	2009	2010
<b>Net lending</b>	<b>2.4</b>	<b>2.9</b>	<b>2.8</b>	<b>3.1</b>	<b>3.6</b>
One-off effects	0.0	0.0	-0.3	0.0	0.0
Extraordinary capital taxes	-0.5	-0.4	0.0	0.0	0.0
Adjustment for GDP gap	-0.5	-0.3	-0.5	-0.3	0.0
<b>Structural balance</b>	<b>1.4</b>	<b>2.2</b>	<b>2.0</b>	<b>2.8</b>	<b>3.6</b>
Net capital income	-0.3	-0.4	-0.5	-0.6	-0.7
<b>Primary structural balance</b>	<b>1.0</b>	<b>1.8</b>	<b>1.5</b>	<b>2.2</b>	<b>2.9</b>
GDP gap	0.9	0.6	0.9	0.6	0.0

Sources: Statistics Sweden and Ministry of Finance.

During the period 2006–2009, the GDP gap is forecast to be positive. This means that the structural balance is estimated to be lower than actual net lending. In 2007, the structural balance is estimated at 2.2 per cent of GDP. In 2008 and 2009, it is estimated at 2.0 per cent and 2.8 per cent of GDP respectively. When the GDP gap closes in 2010, the structural balance converges with actual net lending at 3.6 per cent of GDP.

Both the seven-year indicator and the structural balance indicate that the 1 per cent target is exceeded by a good margin. According to current assessments, this scope between the forecast net lending and the surplus target cannot, however, be utilised in its entirety for further reforms. The most important reason is that the economy in the current economic situation might be overheated by further stimulus. There should also be reserves to cope with the next economic downturn. In addition, a buffer is needed for the very considerable uncertainties contained in the forecasts.

### *Evaluation of the surplus target after the event*

The average of actual net lending for the period 2000–2006 is a natural indicator for an evaluation of the surplus target after the event. This average amounts to 1.1 per cent of GDP. After 2000, average net lending declined up to and including 2004 but then increased. Of the average net lending for the period 2000–2006, 0.2 per cent of GDP was due to positive one-off effects of taxes on corporate profits (reversed tax allocation reserves and extra dividends from the insurance company Alecta).

### *Expenditure ceiling*

The expenditure ceiling margin, the so-called budgeting margin, was nearly SEK 12 billion in 2006 and the margins are sufficiently large during the forecast years. Both the ceiling-restricted expenditure and the levels of the expenditure ceilings decline each year in the estimate, measured as percentages of GDP.

**Table 12: Expenditure ceiling 2006–2010**

*SEK billion, unless otherwise stated*

	2006	2007	2008	2009	2010
Expenditure ceiling	907	938	957	989	1018
<i>Per cent of GDP</i>	<i>32.0</i>	<i>31.1</i>	<i>30.0</i>	<i>29.4</i>	<i>28.9</i>
Budgeting margin	11.8	19.4	29.0	40.4	33.9
Ceiling-restricted expenditure	895	919	928	949	984
<i>Per cent of GDP</i>	<i>31.6</i>	<i>30.5</i>	<i>29.1</i>	<i>28.2</i>	<i>27.9</i>

Note: The budgeting margin is the difference between a determined or proposed expenditure ceiling and the ceiling-restricted expenditure.  
Sources: Statistics Sweden and Ministry of Finance

### **Fiscal policy stance**

Despite large tax cuts, the fiscal policy stance is considered to be somewhat tightening in 2007, according to the rough indicator provided by the change in the structural balance.

**Table 13: Indicator of fiscal policy effects on demand**

*Change in per cent of GDP*

	2006	2007	2008	2009	2010
<b>General government net lending</b>	<b>0.4</b>	<b>0.5</b>	<b>-0.1</b>	<b>0.3</b>	<b>0.5</b>
Automatic stabilisers	0.6	-0.2	0.2	-0.2	-0.3
One-off effects	-0.5	0.0	0.3	-0.3	0.0
Extraordinary capital taxes	0.3	-0.1	-0.4	0.0	0.0
<b>Structural balance</b>	<b>0.0</b>	<b>0.8</b>	<b>-0.2</b>	<b>0.8</b>	<b>0.8</b>
Discretionary fiscal policy	-1.2	-0.9	-0.2	0.1	0.1
Local government net lending	-0.2	-0.1	-0.1	-0.1	-0.1
Net capital income	0.1	0.1	0.1	0.1	0.1
Other factors	1.3	1.7	0.0	0.6	0.6
<i>GDP gap, change in percentage points</i>	<i>1.0</i>	<i>-0.3</i>	<i>0.3</i>	<i>-0.3</i>	<i>-0.6</i>

Sources: Statistics Sweden and Ministry of Finance.

The strengthening of the structural balance between 2006 and 2007 is partly due to a change in the pattern of sick leave. Fiscal policy is expected to be largely neutral in 2008, according to the indicator (change in structural balance). The tax ratio certainly declines



compared with 2007, but at the same time the expenditure ratio declines by roughly the same proportion. The somewhat tightening fiscal policy in 2007 and the neutral fiscal policy in 2008 are well balanced with regard to resource utilisation. The structural balance is expected to strengthen in 2009 and 2010, given previous decisions and those announced.

## VI Alternative scenarios and comparison with the updated programme for 2006

There is currently unusually large uncertainty regarding the long-term sustainable growth rate in the economy, since it is, among other things, difficult to assess the extent of the long-term effects of the government's policy. Another significant uncertain factor is future productivity growth. If productivity continues developing weakly as in the last two quarters, this may have significant consequences for the Swedish economy.

Two alternative scenarios have been developed that illustrate the uncertainties in economic developments in the future.

**Table 14: Key statistics for alternative scenarios**

*Percentage change, unless otherwise stated*

	2007			2008			2009			2010		
	Base	Low	High	Base	Low	High	Base	Low	High	Base	Low	High
GDP fixed prices	3.2	2.9	3.2	3.2	2.2	3.4	2.5	2.2	3.0	2.2	2.3	2.3
GDP gap <sup>1</sup>	0.6	0.7	0.6	0.9	0.3	0.7	0.6	-0.1	0.5	0.0	-0.4	0.0
Regular employment ratio, aged 16–64 <sup>2</sup>	74.9	75.0	74.9	75.6	75.6	75.9	75.8	75.6	76.6	75.6	75.5	76.7
Open unemployment, level <sup>3</sup>	4.4	4.3	4.4	4.0	4.0	4.6	4.1	4.2	4.5	4.3	4.4	4.4
Repo rate, closing rate	4.00	4.25	4.00	4.50	4.75	4.25	4.75	4.75	4.50	4.25	4.25	4.00
Hourly wages	4.0	4.0	4.0	4.7	4.7	4.1	4.6	4.5	3.9	4.1	3.8	3.8
CPI, annual average	2.2	2.8	2.2	2.8	3.2	2.5	2.9	3.1	2.7	2.5	2.6	2.4
General government net lending, per cent of GDP	2.9	2.8	2.9	2.8	2.5	2.8	3.1	2.8	3.2	3.6	3.3	3.8

<sup>1</sup> Difference in per cent between actual and potential output.

<sup>2</sup> Number of employed aged 16–64, excluding those employed in labour market policy programmes, as a percentage of the population in that age group.

<sup>3</sup> As a percentage of the labour force.

Source: Ministry of Finance.

### *Low-growth scenario – continued productivity slowdown*

In the low-growth scenario, the weak productivity growth is assumed to be more prolonged and the productivity level is considerably lower in all years than in the base scenario. The total productivity slowdown is equivalent to the slowdown experienced by the Swedish business sector during the late 1980s. Nominal wages are assumed not to be affected in the next few years by the weak productivity growth but increase as much as in the base scenario until the next major wage negotiations in 2010. Consequently, the weaker productivity growth has a full impact in the form of higher unit labour costs.

The weaker productivity growth means that firms must initially employ more staff to meet the demand. Consequently, unemployment declines somewhat, compared with the development in the base scenario.

Further, the weaker productivity growth results in prices increasing more rapidly, when firms pass on part of their higher costs in higher prices. The higher inflationary pressure results in the Riksbank raising the repo rate more rapidly, which helps to dampen demand growth and thus employment growth during the period 2009–2010. The decline in productivity is expected to have a dampening effect on wage growth in the 2010 wage negotiations.

Public finances weaken by an average of 0.3 per cent of GDP per year in the low-growth scenario. In this scenario, wages are assumed, as previously mentioned, not to be adjusted to the lower productivity growth in the short term and the wage bill therefore increases as a percentage of GDP. This also results in general government revenue increasing as a percentage of GDP. However, general government expenditure also increases as a percentage of GDP. Higher inflation leads, among other things, to an increase in expenditure, mainly pensions. General government expenditure is on the whole nominally sluggish. If GDP falls, this automatically results in a large part of expenditure increasing as a percentage of GDP. The majority of regulated transfer payments are linked to the development of hourly wages, but the latter do not fall in the short term in this scenario. Consequently, expenditure increases as a percentage of GDP more than revenues. Overall, this results in a weakening of net lending in the low-growth scenario.

#### *High-growth scenario – major effects of economic policy*

In this scenario, the government's policy to stimulate supply is assumed to have a considerably more rapid impact than in the base scenario up to 2010. However, productivity growth is estimated to be somewhat lower, since the additional labour is not assumed to have the same productivity as the average of those already employed. The sharp increase in the size of the labour force from 2008 and forwards leads to employment increasing somewhat more rapidly in the period 2008–2009 without the resource situation becoming more strained. In 2008, the labour force increases more than employment, resulting initially in higher unemployment. Consequently, wage growth and the inflationary pressure are dampened.

The lower inflationary pressure and the less strained resource utilisation result in the Riksbank not raising the repo rate as much as in the base scenario. The lower repo rate helps to stimulate demand growth, accelerating the adjustment of demand to the new higher potential output level.

Lower interest rates and higher employment contribute to firms increasing investment. Stronger employment growth and lower inflation lead to the stronger development of household disposable income despite lower wage growth. Together with lower interest rates, this results in household consumption also increasing more rapidly.

Public finances would strengthen in accordance with the assumptions stated in the high-growth scenario. Higher disposable income leads to increased consumption, resulting in higher revenue from VAT. Further, sluggish expenditure results in expenditure declining as a percentage of GDP. Moreover, expenditure linked to the inflation trend declines both nominally and as a percentage of GDP.

## Comparison with the updated programme for 2006

Table 15 below compares the current convergence programme with the updated programme for 2006. In the table, the figures for the updated programme for 2006 have been adjusted for the transfer of the premium pension system to the household sector.

GDP growth in 2006 was 0.2 percentage points higher than stated in the previous year's programme. The GDP growth forecast for 2007 and 2008 has been revised downwards by 0.1 percentage points for each year.

**Table 15: Comparison with the updated convergence programme for 2006**

	2006	2007	2008	2009	2010
<b>GDP, percentage change in volume</b>					
Updated convergence programme for 2006	4.0	3.3	3.1	2.7	–
Updated convergence programme for 2007	4.2	3.2	3.2	2.5	2.2
Difference, percentage points	0.2	-0.1	-0.1	-0.2	–
<b>General government net lending, per cent of GDP</b>					
Updated convergence programme for 2006 <sup>1</sup>	1.8	1.2	1.5	2.0	–
Updated convergence programme for 2007	2.4	2.9	2.8	3.1	3.6
Difference, percentage points	0.6	1.7	1.3	1.1	–
<b>Consolidated gross debt, per cent of GDP</b>					
Updated convergence programme for 2006 <sup>1</sup>	47.0	42.0	37.9	33.5	–
Updated convergence programme for 2007	47.0	39.7	34.8	29.8	24.5
Difference, percentage points	0.0	-2.3	-3.1	-3.7	–

<sup>1</sup> Excluding saving in the premium pension system.

Sources: Statistics Sweden and Ministry of Finance.

Net lending in 2006 was 0.6 percentage points stronger than forecast in the convergence programme for 2006. The higher net lending in 2006 has many explanations. Among other things, revenue from corporate tax was higher than forecast. Lower expenditure also contributed to the higher outcome. Central government transfer payments to households (such as sickness benefits) were, for example, lower than estimated.

The forecast for net lending in 2007 has been revised upwards by 1.7 percentage points. This substantial upward revision is due to both higher revenue and lower expenditure than forecast in last year's convergence programme. On the revenue side, corporate tax revenues have been revised upwards by nearly SEK 15 billion and household taxes have been adjusted upwards by nearly the same amount. The higher tax revenues are largely a result of the stronger development of the labour market and the number of hours worked than forecast a year ago. The stronger labour market is also the main explanation for the favourable development of general government expenditure. Unemployment has been lower than forecast a year ago, which has contributed to the moderate development of transfer payments to households.

Gross debt for 2007 is forecast to be 2.3 percentage points lower than forecast in the previous updated programme.

## VII Quality in public finances and structural policy

In recent years, the importance of quality in public finances has been increasingly emphasised in Sweden as well as the rest of the EU. In Sweden, general government expenditure accounts for just over 50 per cent of GDP, while other EU member states also have high general government expenditure. Government-funded welfare services will increase as a result of the demographic trend and rising revenues. Demands for higher quality in general government activities, such as care and schooling, may be expected in the future. In order to meet this increased demand, general government funds need to be utilised effectively and the joint resources created today need to bolster the economy for future challenges.

This chapter shows firstly the development of Swedish general government expenditure, broken down by purpose, during the period 1995–2005. Secondly, the structural reforms mainly in the labour market area, which the new government has proposed and announced since the autumn of 2006 and up to and including the autumn of 2007, are presented.

### Quality in public finances

The EU is currently in the process of compiling uniform statistics on the allocation of public finances by each member state. Uniform statistics enable cross-country as well as intertemporal comparisons of general government expenditure. In order to evaluate whether a change in the composition of general government expenditure has affected long-term growth, further and more detailed information is required. However, the allocation of general government expenditure between different purposes and the change in allocation over time provide an indication of how different types of expenditure and purposes are prioritised.

**Table 16: General government expenditure by purpose**

*Per cent of GDP*

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Change 1995–2005
General public administration	12.0	11.7	12.0	11.0	10.2	10.2	8.7	9.1	8.2	7.9	7.7	-4.3
interest	6.6	6.5	6.2	5.4	4.7	4.0	3.0	3.2	2.4	1.9	2.0	-4.6
other	5.4	5.2	5.8	5.7	5.5	6.2	5.7	5.9	5.9	5.9	5.7	0.3
Defence	2.5	2.5	2.4	2.4	2.4	2.4	2.2	2.1	2.1	1.9	1.7	-0.7
Social responsibility and judicial system	1.4	1.4	1.4	1.4	1.4	1.3	1.4	1.4	1.4	1.4	1.3	-0.1
Economic issues and economic policy	6.0	4.9	4.5	4.6	4.9	4.1	4.4	4.8	4.9	4.8	5.1	-0.9
Environmental protection	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.2
Provision of housing and social planning	2.8	2.6	2.0	1.7	1.3	0.9	1.0	0.9	0.9	0.8	0.9	-1.9
Health care	6.3	6.6	6.3	6.3	6.4	6.3	6.7	7.0	7.2	7.0	7.0	0.7
Leisure, culture and religion	1.9	1.9	1.8	1.8	1.8	1.1	1.1	1.1	1.1	1.0	1.1	-0.8
Education	7.1	7.0	7.1	7.4	7.5	6.8	7.2	7.4	7.3	7.2	7.3	0.2
Social security	26.9	25.9	24.7	23.4	23.7	23.5	23.5	23.7	24.7	24.3	23.8	-3.1
<b>Total expenditure</b>	<b>67.1</b>	<b>64.8</b>	<b>62.5</b>	<b>60.3</b>	<b>59.8</b>	<b>56.8</b>	<b>56.5</b>	<b>57.9</b>	<b>58.2</b>	<b>56.8</b>	<b>56.4</b>	<b>-10.7</b>
excluding interest	60.5	58.4	56.3	54.9	55.1	52.8	53.5	54.7	55.8	54.9	54.4	-6.1

Sources: Statistics Sweden and Ministry of Finance.

It may be stated that expenditure on social security in Sweden accounts for one-quarter of general government expenditure as a percentage of GDP and just over 40 per cent of total expenditure. Moreover, it has risen as a percentage of total expenditure. However, this percentage fell somewhat in 2005, compared with 2004. Expenditure on health care also accounts for a significant percentage of total expenditure and has shown the highest increase.

**Table 17: General government expenditure by purpose**

*Per cent of total expenditure*

	1995	1997	1997	1998	1999	2000	2001	2002	2003	2004	2005	Change 1995–2005
General public administration	17.9	18.1	19.2	18.3	17.1	18.0	15.5	15.7	14.1	13.8	13.6	-4.2
interest	9.8	10.0	9.9	8.9	7.8	7.1	5.4	5.6	4.0	3.4	3.5	-6.2
other	8.1	8.1	9.3	9.4	9.3	10.9	10.1	10.1	10.1	10.5	10.1	2.0
Defence	3.7	3.9	3.9	4.0	4.1	4.2	3.9	3.7	3.6	3.4	3.1	-0.6
Social responsibility and judicial system	2.1	2.2	2.2	2.3	2.3	2.3	2.4	2.5	2.5	2.4	2.4	0.3
Economic issues and economic policy	9.0	7.5	7.2	7.6	8.1	7.2	7.8	8.3	8.5	8.5	9.1	0.1
Environmental protection	0.3	0.3	0.3	0.3	0.3	0.5	0.6	0.6	0.6	0.6	0.7	0.5
Provision of housing and social planning	4.2	4.1	3.3	2.9	2.2	1.6	1.7	1.5	1.5	1.5	1.7	-2.6
Health care	9.4	10.1	10.2	10.4	10.6	11.0	11.9	12.1	12.4	12.3	12.4	3.0
Leisure, culture and religion	2.8	2.9	2.9	3.0	3.0	1.9	2.0	1.9	1.9	1.8	1.9	-0.9
Education	10.6	10.8	11.4	12.4	12.5	12.0	12.7	12.8	12.6	12.7	13.0	2.4
Social security	40.1	40.0	39.5	38.9	39.7	41.3	41.6	41.0	42.4	42.9	42.2	2.0
<b>Total expenditure</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	
excluding interest	90.2	90.0	90.1	91.1	92.2	92.9	94.6	94.4	96.0	96.6	96.5	6.2

Sources: Statistics Sweden and Ministry of Finance.

## Structural reforms

Achieving permanently high employment is of the utmost importance for maintaining a strong economy and stable and strong public finances and for reducing exclusion. The government has implemented and announced a large number of reforms to permanently increase employment. The reforms implemented over the past 12 months and those announced in the Government Budget Bill for 2008 are expected to affect developments to a great extent in the next few years, but they are only expected to have a full impact after 5 to 10 years.

During 2007, a number of reforms have been implemented to increase the incentives to work and to hire staff as well as to achieve better functioning wage formation. Moreover, changes have been implemented in the scope and stance of labour market policy. Measures have been taken to improve the business climate so that more firms are started up and grow.

In the Government Budget Bill for 2008, further reforms were proposed with the ambition of permanently increasing employment.

### *Increased incentives to work*

The earned income tax credit, which was introduced on 1 January 2007 and involved a reduction in tax on earned income of approximately SEK 40 billion, is extended on 1 January 2008. This second stage of the earned income tax credit, which targets low and medium incomes, involves a tax cut of SEK 10.8 billion in 2008. The earned income tax credit increases the incentives to work and is therefore expected to have a positive impact on employment.

In order to facilitate the entry of young people into the labour market, there is a special allowance when calculating employer contributions for young people. In order to promote the employment of older people, the special employer contribution has been abolished for people born before 1938.

In the sickness insurance area, a rehabilitation chain with fixed time limits is being introduced, while sickness benefit levels are being reduced. After three months' sickness absence at the latest, there should be a review as to whether the insured person can carry out other duties for the employer than their normal duties. After six months' sickness absence, there should be a review as to whether the person in question can carry out a job in the labour market. Sickness benefit is paid at 80 per cent of the income qualifying for sickness benefit for the first 12 months. After that, it is normally reduced to 75 per cent of the income qualifying for sickness benefit, so-called extended sickness benefit. Extended sickness benefit can normally be paid for a maximum of 18 months. A person who still retains work capacity after this time, but has not yet been able to return to work or take part in labour market policy programmes, should be offered permanent socially useful employment.

Clearer medical insurance guidelines are being introduced to support doctors in the process of certifying someone ill. Funds are proposed for initiatives in an improved occupational health service and the establishment of a rehabilitation guarantee.

Moreover, special new start jobs, so-called newly recovered jobs, are being introduced for those who have received sickness benefit, rehabilitation benefit or sickness or activity compensation full time for at least 12 months. The tax relief for newly recovered jobs will in most cases be twice that for new start jobs.

### *A well-functioning labour market*

In order to strengthen the link between the unemployment level and the charges paid to the unemployment insurance fund, a so-called unemployment charge is being introduced, which replaces the current so-called increased financing charge. This unemployment charge is clearly linked to the expenditure and thus the unemployment in each unemployment insurance fund. This reform is expected to have a restraining effect on wage demands. In this way, it may contribute to better functioning wage formation, creating the conditions for lower equilibrium unemployment and permanently higher employment.

A restriction of the possibility of receiving unemployment benefit part time is being introduced. The current design and application of the rules and regulations mean that a

person who is unemployed part time can receive supplementary benefit for a very long period. The proposal aims to reduce the risk of being locked into part-time unemployment as well as reducing a certain overutilisation of unemployment insurance. Those who have been unemployed part time for more than two years will temporarily qualify for a new start job. The opportunity for the latter to get a new start job applies during 2008 and the duration is a maximum of 12 months. For redistribution policy reasons, the government intends to introduce an opportunity for single people with maintenance responsibility for children under 18 to continue receiving benefits by being offered part-time employment within the job and development guarantee programme.

Statistics show that the groups that have received new start jobs, which were introduced on 1 January 2007, have mainly been immigrants and people with disabilities, while women are under-represented. The government now proposes that new start jobs should also be made available in the general government sector, improving the opportunities for women who have been outside the labour market for a long time to benefit from these jobs.

#### *Entrepreneurship*

A good entrepreneurial and business climate is vital for an expanding and robust Swedish economy. A number of measures have been implemented to improve the business climate and to make it more profitable to run and develop a business.

Wealth tax has been abolished, improving access to capital. The 3:12 rules for close companies have been amended so that the scope for capital-taxed income based on the wage bill is broadened and the so-called standard amount has been increased. A tax credit for the purchase of household services by private individuals was introduced on 1 July 2007.

In addition, the government has the objective of reducing the administrative burdens created by central government rules and regulations by 25 per cent during its term of office. Extensive work has begun. An example of a reduced administrative burden is that the reporting period for VAT payments for small firms is extended to once every three months.

#### *Better functioning social security systems*

A basic condition for maintaining the function of the social security systems and for the public's confidence in the latter is that payments are only made to those who are entitled to benefits and allowances. The government has begun work to minimise incorrect payments as a result of overutilisation and benefit fraud.

#### *Long-term effects of economic policy*

Table 18 below shows the long-term total anticipated effects of the policy pursued by the government since the autumn of 2006 and up to and including the autumn of 2007.

**Table 18: Long-term effects of the government's economic policy***Change in per cent or percentage points*

	BB07	SFPB07	BB08	Total
Employment, per cent	2.5	0.1	0.7	3.3
Open unemployment, percentage points	-0.4	-0.4	-0.1	-1.0
Number of hours worked, per cent	3.1	0.1	1.0	4.1
GDP, per cent	2.3	0.0	0.6	2.9

Note: BB07 = Budget Bill for 2007, SFPB07= 2007 Spring Fiscal Policy Bill

BB08= Budget Bill for 2008

Source: Ministry of Finance.

## VIII Sustainability of public finances

In Sweden, as in many other countries, the proportion of older people in the population will rise appreciably in the next few decades. An increased number of people of non-working age in relation to those of working age will put pressure on general government finances. This trend is already placing demands on economic policy today. In order to retain well-developed, tax-funded welfare in the future, high net lending is required in the general government sector in the next few years, while efforts must be made to increase the number of people in employment. High net lending today is basically justified by a more even distribution of the financial burden of care provision between different generations. A surplus in public finances today means that the large generations, who will need medical and health care in the future, contribute themselves to the financing of these services. Unless this occurs, there will either be a larger burden on future generations than on currently active generations or the quality and volume of medical and health care must be reduced. This section presents a couple of scenarios illustrating how the demographic trend in Sweden may impact public finances. The estimates are based on alternative assumptions on the future development of the labour supply. It can be clearly seen that a permanently higher labour supply appreciably benefits both future welfare and public finances.

The following account refers, unless otherwise stated, to a base scenario in which only previously decided labour supply reforms have been taken into account.

### The demographic trend

Sweden's population is currently 9.1 million people. According to the population forecast presented by Statistics Sweden in the spring of 2007, the population will have grown to 10.5 million people by 2050.

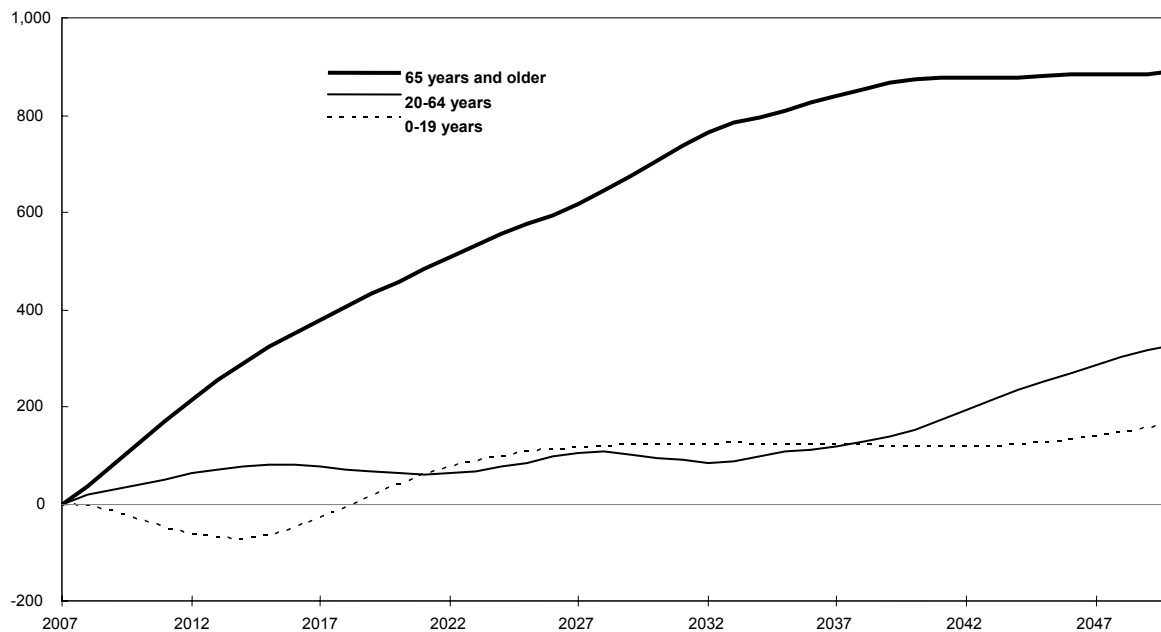
Primarily the number of people aged 65 and over is set to increase rapidly over the next 30 years. In 2035, there will be just over 2.4 million people in this age group – over 800,000 more than today. The number of people between the ages of 20 and 64 is forecast to grow by just under 80,000 until 2015, and then rise only moderately until 2035. Most of the population increase will therefore consist of people who are not of working age (see



Diagram 4). However, the number of people of working age is expected to increase once again after 2035.

#### Diagram 4: Sweden's population

Change compared with 2007, thousands



Source: Statistics Sweden.

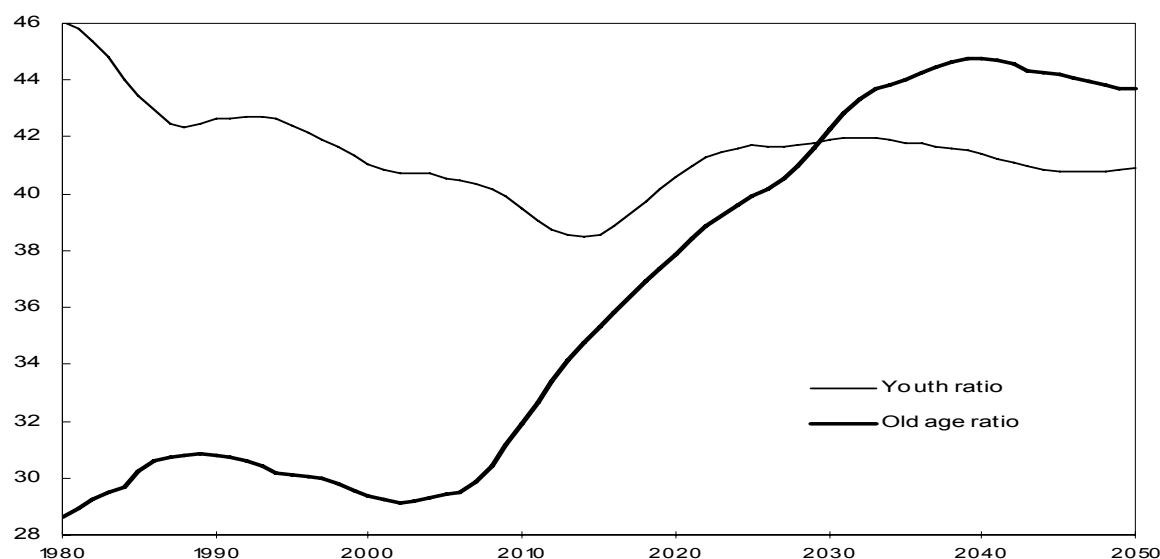
The demographic trend may be summarised in dependency ratios, i.e. the ratio between the number of people of non-working age and the number of people of working age. The dependency ratio for older people, measured as the number of people aged 65 and older in relation to the number of people aged 20 to 64, is estimated to increase from approximately 30 per cent in 2007 to approximately 44 per cent in 2035.<sup>7</sup> This is a moderate increase in an international perspective. Between 2004 and 2050, the elderly dependency ratio in the EU25 is forecast to increase from 25 to 50 per cent, i.e. almost double.<sup>8</sup> The dependency ratio for young people, measured as the number of people under the age of 20 in relation to the number of people aged 20 to 64, is more stable and fluctuates around 40 per cent (see Diagram 5).

<sup>7</sup> As life expectancy increases, the retirement age should perhaps also rise. In order to maintain the elderly dependency ratio at 30 per cent, elderly people must, however, be defined as aged 70 and older and the active age as 20 to 69 in 2035.

<sup>8</sup> The elderly ratio is defined in this case as the number of people aged 65 and older in relation to the number of people aged 15 to 64.

### Diagram 5: Demographic dependency ratios

Per cent

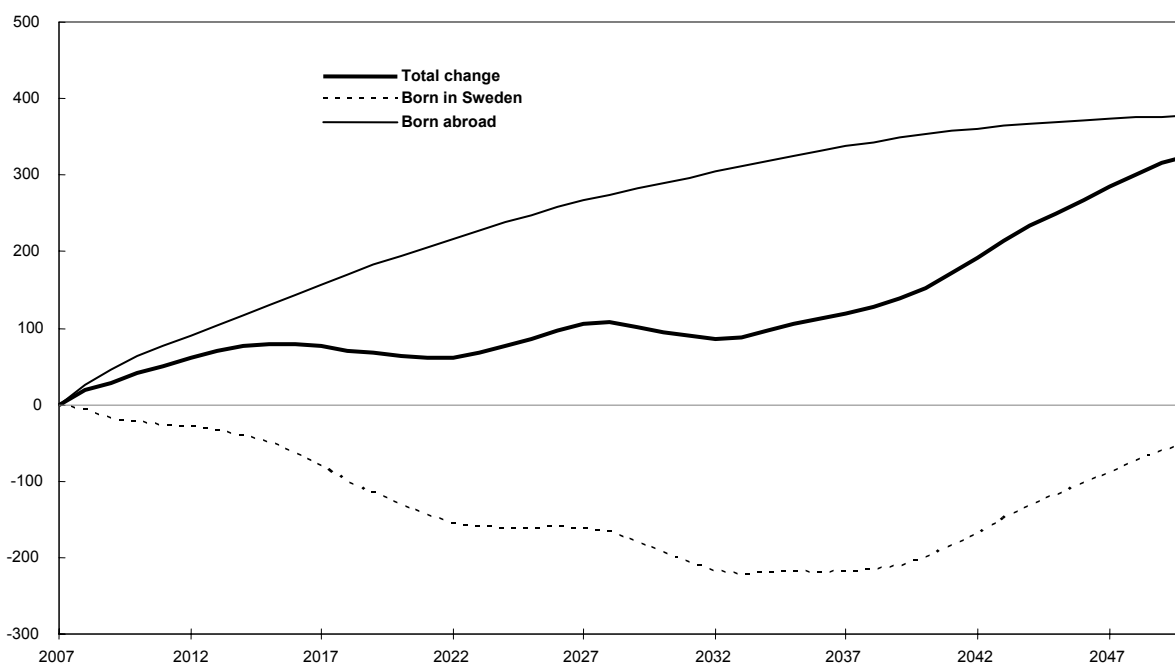


Sources: Statistics Sweden and Ministry of Finance.

Immigration accounts for the major part of population growth and is of vital importance particularly for growth in the population of working age. Without immigration, the number of people in the 20–64 age group would fall (see Diagram 6). The vast majority of immigrants are people born outside the EU. The employment ratio of this group is currently considerably below the average. The increase forecast in the 20–64 age group therefore only results in a weak increase in the number of employed, unless the integration of immigrants in the labour market improves.

### Diagram 6: Population aged 20 to 64

Change compared with 2007, thousands



Sources: Statistics Sweden and Ministry of Finance.

## Economic development after 2010

The long-term projection of economic development is based on the estimate for the Swedish economy up to 2010 described in Chapters IV and V. Employment growth after 2010 is mainly based on the forecast population trend. In the estimate, men and women born in Sweden and abroad in different age groups are assumed to work to the same extent as today. Average working hours, the proportion of people employed, unemployed etc. thus remain constant in groups defined by gender, age and ethnicity.

In the short term, the change in the age structure plays a major role. The number of people aged 20 to 29, with a relatively low labour supply, will account for the entire population growth in the 20–64 age group in the next few years, while the number of people of other ages will fall. In a somewhat longer perspective, changes related to origin in the composition of the population are more important. The proportion of immigrants and particularly those born outside the EU in the 20–64 age group will grow rapidly.

Up to and including 2014, it is also assumed that some adjustment, as a result of the measures to stimulate supply implemented during the term of office and proposed in the Government Budget Bill for 2008, will still continue. The earned income tax credit and other measures will make it more profitable to work and this will lead in the long term to a higher labour supply and higher employment. However, this adjustment is not immediate but will continue over a long period. Employment and the number of hours worked are therefore assumed to increase by 1.7 per cent between 2011 and 2014. The major part of this increase, 1.3 per cent, is due to increased labour force participation. The remaining 0.4 per cent is due to reduced unemployment. Overall, this results in the employment ratio exceeding 80 per cent throughout the period after 2010.

Productivity in the business sector rises by an average of 2.4 per cent per year until 2015. This is in line with the relatively rapid productivity growth of the past few years, but is considerably higher than the rate of growth in the 1970s and 1980s. After 2015, productivity growth in the business sector is assumed to fall gradually to an average of 2.2 per cent per year. Productivity growth in the general government sector is assumed to be zero, in accordance with the calculation methods used in the National Accounts.<sup>9</sup> Combined with employment shifts between the private and the general government sectors, this leads to a productivity increase in the whole economy, which varies between 2.1 per cent and 1.6 per cent per year during the period.

The increase in productivity and in the labour force result in GDP growing on average by just under 2.1 per cent per year during the period 2007–2050. GDP per capita grows on average by just over 1.7 per cent per year. As a result, GDP will be just under 60 per cent higher in 2030 than in 2007 and nearly 140 per cent higher in 2050. GDP per capita is approximately 45 per cent higher in 2030 than in 2007 and more than doubles by 2050.

Wage growth in the private sector is guided by productivity growth. This means that corporate profit levels are assumed to remain unchanged. Wages in the general government sector are assumed to follow wages in the business sector. Since productivity

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<sup>9</sup> These calculation methods are currently being reviewed and more advanced assessments of productivity growth in the general government sector will be made in the National Accounts in the future.

growth in the general government sector is assumed to be zero, this results in productivity in the total economy growing more slowly than wages. The most important calculation assumptions are summarised in Table 19.

**Table 19: Macroeconomic assumptions**

	2000	2007	2010	2015	2020	2030	2040	2050
<b>Percentage change<sup>1</sup></b>								
Population aged 20–64	0.5	0.5	0.2	0.1	-0.1	0.1	0.1	0.3
Employed	2.2	2.3	0.4	0.4	0.0	0.0	0.1	0.3
Number of hours worked	1.0	2.8	0.6	0.4	0.0	-0.1	0.1	0.3
Productivity in the business sector	4.1	0.5	2.4	2.4	2.3	2.2	2.2	2.2
GDP, fixed prices	4.3	3.2	2.6	2.6	1.9	1.7	2.0	2.2
GDP per capita	4.1	2.6	2.1	2.1	1.5	1.3	1.7	1.9
GDP productivity	3.7	0.5	2.0	2.0	1.8	1.6	1.8	1.9
GDP deflator	1.4	3.0	2.7	2.3	2.3	2.4	2.2	2.0
CPI	0.9	2.2	2.7	2.0	2.0	2.0	2.0	2.0
Hourly wages	5.4	3.9	4.7	4.4	4.3	4.2	4.2	4.0
<b>Per cent</b>								
Real rate of interest	4.5	2.2	2.3	3.0	3.0	3.0	3.0	3.0
Labour force participation, aged 20–64	81.2	82.4	81.9	82.0	82.0	81.2	81.3	81.2
Open unemployment <sup>2</sup>	5.3	4.4	4.3	3.9	3.8	3.9	3.9	3.9

Note: In the estimate of GDP growth it is assumed, in accordance with the convention in the Swedish National Accounts, that productivity growth in the general government sector is zero. An increased percentage of general government consumption thus entails reduced GDP productivity.

<sup>1</sup> For the period 2010–2050, the average percentage change from the previous year is stated in the table.

<sup>2</sup> National definition. Students looking for work are counted as unemployed in international statistics.

Sources: Statistics Sweden and Ministry of Finance.

## Public finances

In 2010, public finances show a surplus equivalent to 3.6 per cent of GDP. After 2010, it is assumed that they are gradually adjusted so that the 1 per cent surplus target is met.<sup>10</sup> This adjustment is of a computational nature and in no way reflects expectations regarding actual measures. The adjustment is made in the estimates through an unspecified expenditure increase, which is assumed not to affect the functioning of the economy in other respects. The assumptions in the estimates are in this sense unrealistic, but the scenario nevertheless has a pedagogic value. The scenario indicates the effects of an unchanged policy, in which the level of ambition in the general government commitment remains unchanged and financing is carried out in accordance with unchanged principles.

In order to illustrate the importance of structural reforms for the long-term development of public finances, this base scenario is contrasted with an alternative scenario – a so-called employment scenario – in which the adjustment to the 1 per cent target is made through tax reforms (tax cuts), which permanently increase the labour supply and

<sup>10</sup> The government has stated that it intends to maintain this fiscal policy target during the current term of office and as long as is necessary to ensure the long-term sustainable development of public finances. The estimates assume that public finances show a surplus equivalent to 1 per cent of GDP in 2015.

employment. The tax ratio remains constant after 2015, and both expenditure and revenues are then guided mainly by demographic factors.<sup>11</sup>

### **General government revenue**

The long-term development of tax revenues is largely dependent on employment growth. Most taxes directly or indirectly represent a taxation of work. The majority of households' income taxes and social security contributions are deducted from wages. These taxes account for over half of general government revenues. The development of the labour market is also of major importance to revenue from taxes on household consumption expenditure, such as VAT and excise duties. Even if the tax rates remain unchanged in relation to the respective tax base, the total tax ratio, i.e. taxes and charges in relation to GDP, will change somewhat over the next few decades. The reason is that a number of important tax bases may be expected to grow more rapidly than GDP. This applies, for example, to household consumption expenditure and taxed transfer payments, which grow as the number of pensioners increases.

A small proportion of the costs of providing welfare services is financed through user fees. The estimates assume that the fees for childcare etc. rise in pace with production costs. Consequently, fee revenues rise at a considerably higher rate than if today's maximum charges remained in force, but at a slower rate than household disposable income.

### **General government expenditure**

The change in the population structure has major effects on general government expenditure. The increasing number of older people in the population affects expenditure on pensions, health care and care of the elderly. The estimate of pension expenditure is based on the demographic trend, the macroeconomic assumptions and current rules and regulations. Pension expenditure is estimated to increase from 8.2 per cent of GDP in 2007 to a maximum 8.9 per cent in the early 2030s, before declining to 7.7 per cent in 2050. Expenditure on health care and care of the elderly is estimated to increase from 10.0 per cent of GDP in 2007 to just under 13.0 per cent in 2050. Overall, expenditure on pensions, health care and care of the elderly is estimated to increase as a percentage of GDP by just under 2.1 percentage points during the estimate period.

The estimates assume a standard guarantee in general government transfer payment systems. For a large proportion of transfer payments, there are rules and regulations which automatically increase benefits in line with the wage trend. This applies to pensions, which are adjusted upward in line with the earnings index, and partly to transfer payments, which compensate for loss of earnings, e.g. health and parental insurance. Transfer payments which lack this type of automatic standard guarantee, e.g. child benefit and study allowance, are assumed in the estimate to increase in line with the nominal wage trend. Such a standard guarantee offsets the erosion which would take place in the longer term, if the estimate were based on strictly unchanged regulations. The standard

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<sup>11</sup> The tax ratio remains constant from 2011 in the base scenario, while it remains constant from 2016 in the employment scenario.

guarantee therefore assumes that certain reforms are implemented in pace with economic growth.

Staff intensity, e.g. the number of teacher hours per student, may be regarded as an indicator of the quality of general government services output. In the estimates, it is assumed that these services are carried out with the same staff density as today.

Between 2007 and 2020, primary general government expenditure, i.e. expenditure excluding interest, is estimated to increase as a percentage of GDP (see Table 20). The total demographic pressure on expenditure leads to demand for tax-funded welfare services rising on average by 1 per cent per year during this period. Transfer payments linked to people under 20 fall as a percentage of GDP in the next few years, while pension expenditure increases. Overall, household transfer payments fall somewhat as a percentage of GDP until 2020.

**Table 20: Primary expenditure as a percentage of GDP**

*Change in percentage points*

	2007–2020	2020–2050
<b>Primary expenditure</b>	<b>1.9</b>	<b>0.2</b>
Transfer payments to households	-0.3	-0.8
Transfer payments to firms and abroad	-0.2	-0.1
General government consumption	-1.3	1.0
Investment	-0.1	0.0
Technical adjustment	3.9	0.0

Sources: Statistics Sweden and Ministry of Finance.

Between 2020 and 2030, primary expenditure is estimated to increase as a percentage of GDP by approximately 2 percentage points. The expenditure ratio peaks in the mid-2030s. Principally general government consumption of health care and care of the elderly increases, but household transfer payments in the form of pensions also grow. The technical adjustment (the unspecified expenditure increase) is somewhat larger than the change in net lending between 2010 and 2015. This is due to age-related expenditure actually falling during this period. The demographic pressure on expenditure only becomes serious after 2015.

**Table 21: Public finances***Per cent of GDP*

	2000	2007	2010	2015	2020	2030	2040	2050
Primary revenue	55.2	51.8	50.3	50.5	50.7	51.1	50.9	50.3
Taxes and charges	52.0	48.4	47.2	47.7	48.0	48.6	48.7	48.3
Other revenue	3.2	3.4	3.1	2.9	2.7	2.4	2.2	2.0
Primary expenditure	50.3	49.3	47.4	50.6	51.2	53.3	52.8	51.4
Transfer payments	21.3	19.8	18.8	19.0	19.2	19.6	19.2	18.4
Consumption	26.3	26.6	25.8	24.9	25.3	26.9	26.8	26.3
Investment	2.6	2.9	2.8	2.7	2.8	2.9	2.9	2.8
Technical adjustment	0.0	0.0	0.0	3.9	3.9	3.9	3.9	3.9
Primary net lending	5.0	2.5	2.8	-0.1	-0.5	-2.2	-1.9	-1.1
Net capital income	-1.1	0.4	0.7	1.1	1.2	0.8	-0.1	-0.7
Net lending	3.8	2.9	3.6	1.0	0.7	-1.4	-2.0	-1.8
Financial position								
Consolidated gross debt	54.4	39.7	24.5	12.6	7.8	10.4	22.3	32.0
Adjusted gross debt <sup>1</sup>	34.1	14.2	1.2	-7.3	-8.8	1.0	20.2	32.1
Net debt	5.5	-17.7	-24.4	-31.0	-31.6	-20.6	0.5	13.8

<sup>1</sup> Consolidated gross debt minus pension system assets in addition to government securities.

Sources: Statistics Sweden and Ministry of Finance.

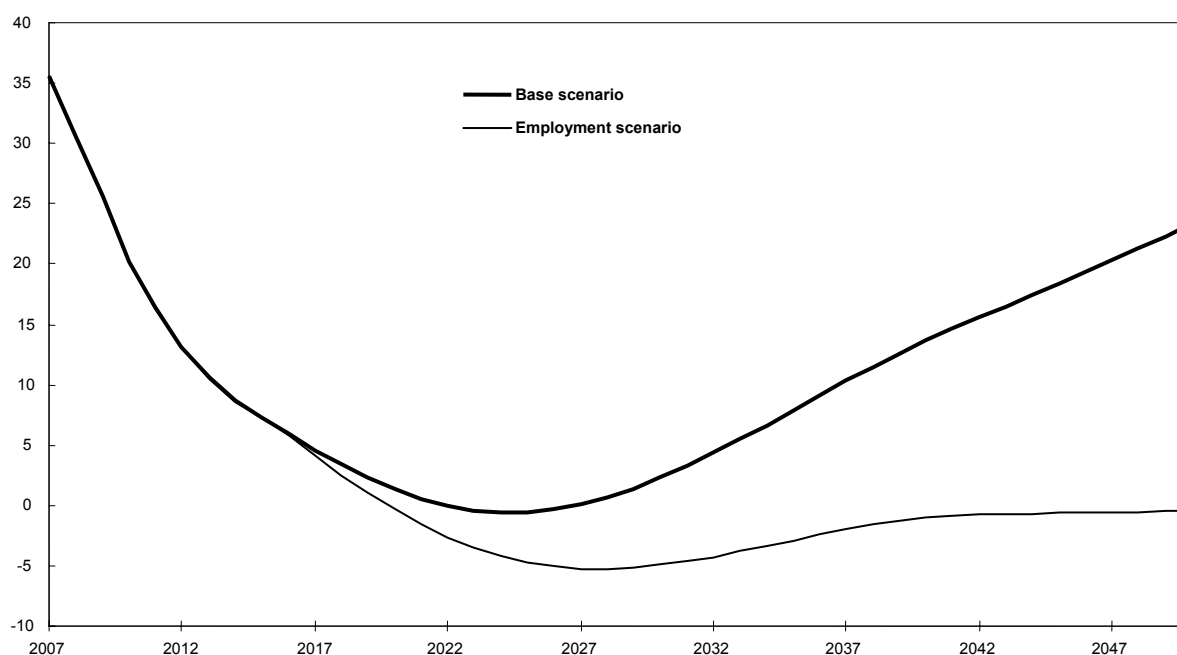
### Sustainable public finances

There is no unambiguous definition of sustainable public finances. One method, which has been used in the Swedish Long-term Survey, is that the debt situation should not deteriorate over a period that is foreseeable but nevertheless long enough to include the demographic structural change. If general government debt as a percentage of GDP is no larger at the end of the period than at the beginning, fiscal policy may be considered sustainable using this approach.

Diagram 7 illustrates the development of central government debt as a percentage of GDP up to 2050. The diagram shows the development for both the base scenario and the so-called employment scenario. In both scenarios, as previously described, public finances are assumed to show a surplus of 1 per cent of GDP in 2015. General government net lending is assumed to decline on a straight-line basis between 2010 and 2015 from 3.6 per cent of GDP to 1 per cent of GDP. In the base scenario, which this chapter has so far been based on, the balance deteriorates through an unspecified expenditure increase, which is assumed not to affect the functioning of the economy in other respects. In the employment scenario, the budget balance is reduced through tax cuts, which are designed to stimulate the labour supply.

## Diagram 7: Central government debt

Per cent of GDP



Sources: Statistics Sweden and Ministry of Finance.

The estimate for the base scenario results in a debt ratio in 2050 that is somewhat lower than in 2007. At the same time, the increase in the debt ratio during the latter part of the period shows that sustainability problems may arise after 2050.

The rising debt ratio causes some concern that public finances are not likely to be sustainable if the time perspective is extended further into the future. Moreover, the Long-term Survey's definition of sustainability has a weakness in that central government divestments give an incorrect picture of increased sustainability. A more formal sustainability analysis based on net debt is presented below.

In the strict sense of the word, public finances are sustainable, if the present value of all future revenues and expenditure, excluding interest, is the same as the net debt at the beginning of the period. The European Commission has developed an indicator, which is based on such a strict definition of sustainability.<sup>12</sup> The indicator, called S2, stipulates the permanent budget strengthening required to achieve strict sustainability. S2 is expressed as a percentage of GDP and is 0.0 in the base scenario and -0.8 in the employment scenario. The neutral value means that public finances are sustainable according to this criterion, but that they cannot stand any permanent budget weakening at all (increased expenditure or reduced taxes). In the employment scenario, however, there is scope for a permanent budget weakening of 0.8 per cent of GDP without sustainability being jeopardised.

Public finances can therefore be regarded as sustainable in the long term in both the base scenario and the employment scenario. However, it should be borne in mind that

<sup>12</sup> Long-term Sustainability of Public Finances in the European Union, European Economy no. 4/2006.

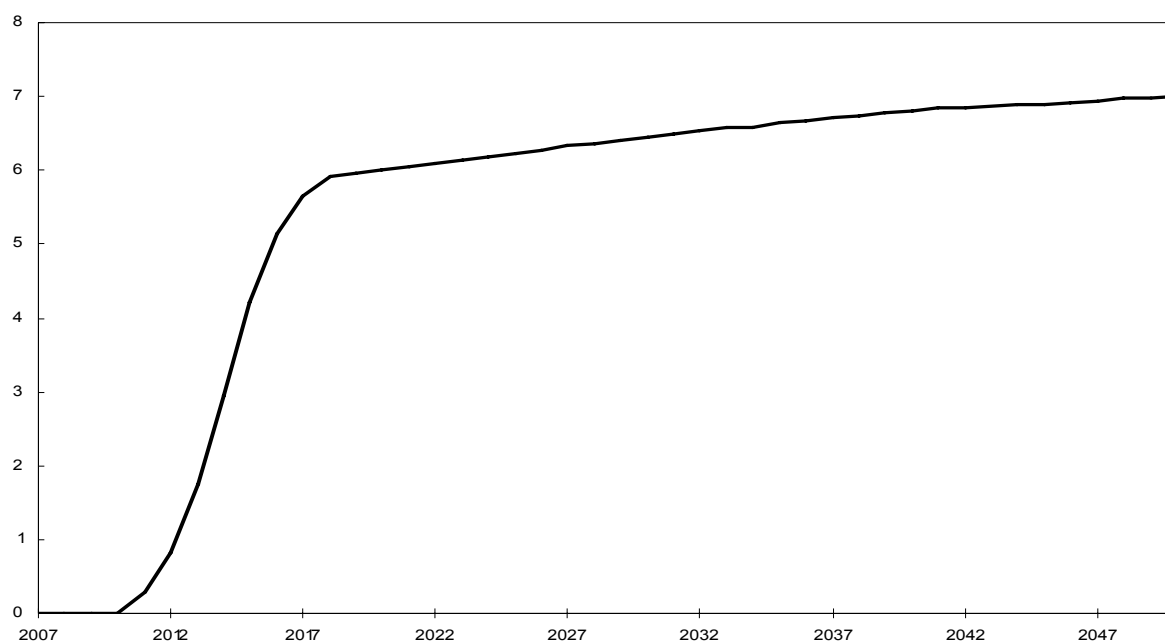


sustainability is weak in the base scenario and that long-term projections suffer from considerable uncertainty. This scenario illustrates the importance of the surplus target for the possibility of maintaining the standard in tax-funded welfare systems. In order to prevent central government debt as a percentage of GDP from approaching unsustainable levels in the long term and forcing cutbacks, the debt ratio must decline rapidly in the next few years.

The employment scenario clearly illustrates the vital importance of permanently increased employment for future welfare. In this scenario, employment and GDP increase considerably more rapidly during the ten-year period 2010–2020. The permanent increase in employment is equivalent to 180,000 people and following the adjustment GDP is permanently more than 6 per cent higher than in the base scenario (Diagram 8).<sup>13</sup> In addition to the generally increased welfare that a continued structurally focused policy is likely to lead to, it also results in scope for future reforms in the form of further tax cuts or initiatives in, for example, the care sector.

### Diagram 8: GDP effect of the employment scenario

Per cent



Note: The diagram shows the increase in GDP that arises in the employment scenario compared with the base scenario.  
Source: Ministry of Finance.

The assessment that public finances are sustainable in the long term in the base scenario is dependent on the assumptions made in the estimates. It is of vital importance that general government expenditure does not increase more than what is demographically determined for the period after 2010. This means that anticipated future growth is not used at all to increase the quality or volume of general government service. If households wish to

<sup>13</sup> The effect on GDP is calculated in a simplified manner. The employment effect resulting from tax cuts has a full impact on the output level in the estimates. In reality, such an increase in employment would, however, affect productivity and the GDP effect would then be likely to be not quite as large. Work is in progress to improve methods in this area and the ambition is that Sweden will be able to present estimates with such mechanisms in next year's updated convergence programme.

consume more of the services currently provided by the general government sector, this must be financed privately, which will in that case have redistribution consequences. In the employment scenario, there is some scope for increased general government financing.

It is also vital that a high employment level can be maintained. If employment falls, the tax burden on those working would need to be raised, in order to maintain the same level of ambition in the general government commitment.<sup>14</sup> Higher productivity could compensate for a reduced labour supply with regard to the aggregate output in the economy. But if wages in both the private and general government sectors are guided by productivity growth, such an increase would drive up costs in labour-intensive general government output and the tax levy would need to be raised even more. This could then further reduce the labour supply.

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<sup>14</sup> However, such a measure could result in a further fall in employment in the long term through the behavioural effects resulting from higher taxes.

## Appendix A Calculation assumptions

The calculation methods used in the estimate of public finances during the period 2010–2050 are discussed in more detail below.

### Demographic assumptions

The estimate is based on Statistics Sweden's population forecast of May 2007 shown in Table A.1.

**Table A.1: Demographic assumptions**

	2000	2005	2010	2020	2030	2040	2050
Birth rate	1.55	1.77	1.85	1.85	1.85	1.85	1.85
Average life expectancy, women	82	82.8	83.3	84.4	85.2	85.8	86.3
Average life expectancy, men	77.4	78.4	79.4	80.9	82.1	83.1	83.8
Net migration, thousands	24,600	27,100	25,000	24,300	24,400	23,800	23,400

Source: Statistics Sweden.

**Table A.2: Taxes and charges**

*Per cent of GDP*

	2000	2005	2010	2015	2020	2030	2040	2050
<b>Taxes and charges</b>	<b>52.0</b>	<b>50.4</b>	<b>47.2</b>	<b>47.7</b>	<b>48.0</b>	<b>48.6</b>	<b>48.7</b>	<b>48.3</b>
<b>Household direct taxes and charges</b>								
Proportion of GDP	21.3	19.3	17.1	17.1	17.2	17.3	17.3	17.2
Implicit tax rate for direct taxes	29.5	26.4	24.0	24.0	24.0	24.0	24.0	24.0
Tax base for direct taxes as percentage of GDP	62.6	62.8	60.3	60.3	60.5	61.0	60.9	60.3
Implicit tax rate for charges	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Tax base for charges as percentage of GDP	47.3	46.7	44.4	44.0	44.2	44.7	45.0	45.3
<b>Corporate direct taxes</b>								
Proportion of GDP	3.8	3.7	4.0	4.0	3.9	3.8	3.8	3.8
Implicit tax rate	13.7	13.8	13.6	13.6	13.6	13.6	13.6	13.6
Tax base as percentage of GDP	28.0	27.1	29.1	29.0	28.7	27.8	27.6	27.8
<b>Indirect taxes<sup>1</sup></b>								
Proportion of GDP	13.5	14.1	13.5	14.1	14.4	14.9	14.9	14.5
Implicit tax rate	27.3	29.3	28.9	28.6	28.4	28.3	28.2	28.1
Tax base as percentage of GDP	49.5	48.1	46.6	49.4	50.7	52.4	52.8	51.8
<b>Employer social security contributions and self-employed social security contributions<sup>2</sup></b>								
Proportion of GDP	13.3	13.2	12.6	12.5	12.5	12.6	12.7	12.8
Implicit tax rate	32.5	32.7	31.3	31.3	31.3	31.2	31.2	31.2
Tax base as percentage of GDP	40.9	40.4	40.2	40.0	40.1	40.5	40.7	41.0

<sup>1</sup> Excluding wage-dependent indirect taxes.

<sup>2</sup> Including wage-dependent indirect taxes.

Sources: Statistics Sweden and Ministry of Finance.

### General government revenue

A standard method for projections of general government revenue is to state taxes and charges as a constant percentage of GDP. In practice, this method means that tax

regulations are assumed to change unless the tax bases grow in pace with GDP. The estimates described here are based on an assumption of constant tax rates relative to the tax bases. Consequently, the aggregate tax ratio will vary if the tax bases develop in a different way than GDP. This method reflects unchanged tax regulations. Stable tax rates over time are advantageous both on grounds of effectiveness and redistribution policy. Table A.2 shows in detail general government taxes and charges as a percentage of GDP and as a percentage of the respective tax base (implicit tax rate) as well as the tax base as a percentage of GDP.

Overall, the tax ratio (taxes and charges as a percentage of GDP) declines by 2.1 percentage points during the period 2005–2050.

### General government consumption expenditure

The estimate of general government consumption expenditure is based on age- and gender-distributed unit costs<sup>15</sup> for childcare, primary and secondary education (compulsory school and upper secondary school), adult education (municipal adult education and higher education), health care (outpatient and inpatient care), care of the elderly (home help service and sheltered accommodation), and labour market measures. All these expenditure areas are projected in volume terms by the population change in the relevant age group for women and men. Other consumption expenditure, which mainly consists of general administration, the judicial system and defence, is assumed to follow the change in the total population. The price trend in general government consumption is a weighting of the wage trend and the price trend, with weights reflecting the composition of consumption in the respective operating area. It is assumed in the estimates that productivity growth in all general government activities is zero, which results in the price of general government consumption growing approximately 1.5 percentage points more rapidly than the consumer price index per year (see Appendix B in the Swedish convergence programme for 2004).

**Table A.3: General government consumption**

*Per cent of GDP*

	2000	2005	2010	2015	2020	2030	2040	2050
<b>Total consumption</b>	27.9	27.1	25.8	24.9	25.3	26.9	26.8	26.3
Childcare	1.7	1.6	1.6	1.6	1.7	1.7	1.6	1.6
Primary and secondary education	3.9	3.8	3.5	3.2	3.3	3.4	3.3	3.1
Adult education	2.1	2.0	1.8	1.7	1.6	1.6	1.6	1.5
Health care	6.2	6.2	5.9	5.8	6.0	6.4	6.5	6.3
Care of the elderly	3.9	4.1	4.1	4.1	4.4	5.7	6.1	6.3
Labour market measures	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0
Other activities	10.0	9.4	8.8	8.4	8.3	8.1	7.7	7.3

Sources: Statistics Sweden and Ministry of Finance.

<sup>15</sup> These unit costs are based on 1999 consumption patterns.

## Transfer payments

The estimates assume a certain standard guarantee in the general government transfer payment systems. For a large part of transfer payments, there are rules and regulations that automatically raise expenditure in pace with real growth in the economy. This applies to pensions, which are adjusted upward in line with the earnings index, and also partly to transfer payments, which compensate for loss of earnings, e.g. health and parental insurance. Transfer payments, which lack an automatic standard guarantee, e.g. child benefit and study allowance, are assumed to increase in line with wages. Such a standard guarantee offsets the erosion of household transfer payments that would take place, if the estimate were only based on a price projection for a period of nearly 50 years.

**Table A.4: General government transfer payments**

*Per cent of GDP*

	2000	2005	2010	2015	2020	2030	2040	2050
<b>Total transfer payments</b>	21.3	21.9	18.8	19.0	19.2	19.6	19.2	18.4
Transfer payments to households	18.2	18.3	15.6	15.9	16.1	16.4	16.1	15.3
Old-age	8.4	8.7	8.3	8.8	8.8	8.9	8.5	7.7
Ill health	3.8	4.3	3.4	3.2	3.3	3.4	3.5	3.5
Children/studies	2.3	2.2	2.0	2.0	2.0	2.1	2.1	2.1
Labour market	1.9	1.6	0.8	0.7	0.7	0.7	0.7	0.7
Other	1.7	1.5	1.2	1.2	1.2	1.3	1.3	1.3
Transfer payments to firms	1.9	2.0	1.7	1.7	1.7	1.7	1.7	1.6
Transfer payments abroad	1.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Note: "Old age" comprises old-age pension, survivor's pension, central government and municipal pensions as well as supplementary housing benefit to pensioners. "Ill health" comprises health insurance, occupational injury insurance, disability pension and carer's allowance. "Children/studies" comprises child benefit, parental insurance, maintenance support and study allowance. "Labour market" comprises unemployment benefit, labour market training grants and wage guarantee. Sources: Statistics Sweden and Ministry of Finance.

## Old-age pension system

Table A.5 shows the old-age pension system's revenue and expenditure and its financial position. Net lending deteriorates as pension expenditure increases, as a result of the increasing number of pensioners. The growing expenditure means that the old-age pension system's assets are used up at the end of the estimate period. If the estimates are extended further into the future, the pension system will, however, again accumulate assets.

**Table A.5: Old-age pension system**

*Per cent of GDP*

	2000	2005	2010	2015	2020	2030	2040	2050
<b>Revenue</b>	8.1	7.5	7.0	6.9	6.8	6.6	6.3	6.3
Charges	6.6	6.7	6.2	6.1	6.1	6.2	6.3	6.3
Interest, dividends etc.	1.5	0.8	0.8	0.8	0.7	0.4	0.1	0.0
<b>Expenditure</b>	8.5	6.5	6.7	7.1	7.1	7.2	6.9	6.3
Pensions	6.3	6.3	6.6	6.9	7.0	7.1	6.8	6.2
Other	2.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<b>Net lending</b>	-0.4	1.0	0.3	-0.1	-0.3	-0.6	-0.5	0.0
<b>Net financial assets</b>	32.9	28.3	26.4	22.0	18.0	10.0	2.1	0.0

Sources: Statistics Sweden and Ministry of Finance.

Table A.6 presents a number of key variables from the Swedish convergence programme in the form recommended by the European Commission.

**Table A.6: Long-term sustainability of public finances**

	2000	2005	2010	2015	2020	2030	2040	2050
Per cent of GDP								
<b>Total expenditure</b>	<b>54.4</b>	<b>53.8</b>	<b>48.9</b>	<b>51.4</b>	<b>51.7</b>	<b>53.8</b>	<b>53.8</b>	<b>52.9</b>
Age-related <sup>1</sup>	29.3	29.7	27.5	27.3	28	29.9	29.8	28.9
Pensions <sup>2</sup>	10.2	11.0	10.1	10.4	10.5	10.7	10.4	9.5
Guarantee pensions	0.5	0.9	0.5	0.6	0.6	0.6	0.6	0.5
Old-age pensions	6.3	6.3	6.6	6.9	7	7.1	6.8	6.2
Other pensions (disability and survivor)	2.8	3.2	2.5	2.3	2.4	2.5	2.4	2.3
Public pension fund reserves	0.6	0.6	0.5	0.5	0.6	0.6	0.6	0.6
Health care	6.2	6.2	5.9	5.8	6	6.4	6.5	6.3
Care of the elderly	3.9	4.1	4.1	4.1	4.4	5.7	6.1	6.3
Childcare	1.7	1.6	1.6	1.6	1.7	1.7	1.6	1.6
Education	6.0	5.8	5.3	4.9	4.9	5.0	4.9	4.6
Unemployment benefit	1.4	1.2	0.5	0.4	0.4	0.5	0.5	0.5
Other age-related expenditure	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest expenditure	4.2	2.0	1.4	0.8	0.5	0.5	1.1	1.5
<b>Total revenues</b>	<b>58.3</b>	<b>55.8</b>	<b>52.4</b>	<b>52.4</b>	<b>52.4</b>	<b>52.4</b>	<b>51.8</b>	<b>51.1</b>
Capital income	3.1	2.2	2.2	1.9	1.7	1.3	1.0	0.8
of which the pension system	1.5	0.8	0.8	0.8	0.7	0.4	0.1	0.0
<b>Assets in pension funds</b>	<b>33</b>	<b>28.7</b>	<b>26.7</b>	<b>22.3</b>	<b>18.3</b>	<b>10.1</b>	<b>2.1</b>	<b>-0.2</b>
of which assets other than government securities	20.3	25.0	23.3	19.9	16.7	9.4	2.1	-0.1
Assumptions								
Growth in labour productivity, GDP level	3.7	2.7	1.9	1.9	1.7	1.6	1.9	1.9
GDP growth	4.3	2.9	2.2	2.2	1.8	1.6	2.2	2.0
Unemployment	5.3	6.0	4.3	3.9	3.8	3.9	3.9	3.9
Population aged 65 and older as a percentage of total population	17.2	17.3	18.6	20.3	21.2	22.9	24.1	23.7

<sup>1</sup> Age-related expenditure includes childcare. This expenditure is not included in the age-dependent expenditure, which an EU working group used in its calculations, presented in Appendix B.

<sup>2</sup> Pensions includes both old-age pension and disability pension.

Sources: Statistics Sweden and Ministry of Finance.

## Appendix B Comparison with long-term projections by the EU

A working group (Ageing Working Group) under the Economic Policy Committee (EPC), together with the European Commission, has made projections for the development of age related expenditure up to 2050<sup>16</sup>. The estimates in this publication, however, are based on the data presented to the Riksdag in the Budget Bill for 2008, Appendix 2, Sweden's Economy. This section compares the demographic and macroeconomic key figures as well as the age related expenditure from these two sources.

**Table B.1: Macroeconomic assumptions in the EPC estimates and in the Swedish convergence programme**

*Index 2007=100 unless otherwise stated*

	2007	2010	2015	2020	2030	2040	2050
Population aged 15–64							
EPC	100	100.6	99.1	99.0	99.7	100.0	101.6
Convergence programme	100	100.3	99.0	99.4	100.6	102.0	104.5
Employed aged 15–64							
EPC	100	101.3	102.3	102.9	103.4	103.9	106.0
Convergence programme	100	101.3	103.4	103.3	102.9	104.2	107.1
Unemployment, per cent of labour force							
EPC	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Convergence programme	4.4	4.3	3.9	3.8	3.9	3.9	3.9
Number of hours worked							
EPC	100	101.3	102.3	102.9	103.4	103.9	106.0
Convergence programme	100	102.0	104.1	104.3	103.7	105.0	108.0
Labour productivity							
EPC	100	107.6	122.7	138.8	170.1	201.6	239.0
Convergence programme	100	105.9	116.8	127.7	150.4	179.9	217.6
GDP							
EPC	100	109.0	125.5	142.8	175.8	209.5	253.3
Convergence programme	100	108.0	122.5	134.8	159.4	193.7	239.8
GDP per capita							
EPC	100	107.7	121.6	135.5	161.1	189.1	225.5
Convergence programme	100	106.5	118.2	127.0	144.8	172.2	208.4

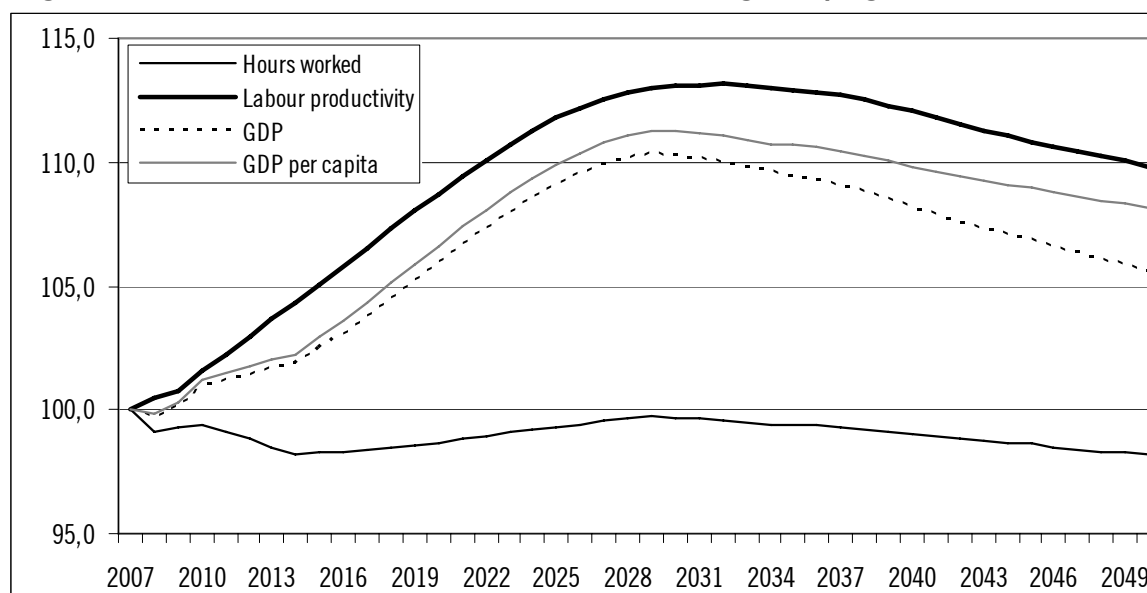
Sources: European Commission and Ministry of Finance.

The population forecast used by the EPC was prepared by Eurostat during the spring of 2005, while the convergence programme's estimates are based on Statistics Sweden's population forecast of May 2007. Population growth among people of working age is relatively similar in both forecasts during the next decade. In the longer run, however, population growth is higher in Statistics Sweden's forecast. The EPC assumptions include somewhat higher open unemployment than in the Swedish convergence programme, as well as the assumption that a somewhat lower proportion of the working-age population will be employed in the long run. The measures to stimulate the labour supply proposed by the government are not included in the EPC's assumptions, which means that the

<sup>16</sup> The impact of ageing on public expenditure: projections for the EU25 Member States on pensions, health care, long-term care, education and unemployment transfers (2004–2050). Report prepared by the Economic Policy Committee and the European Commission (DG ECFIN). Special Report no 1/2006.

number of hours worked is assumed to develop somewhat more slowly than in the convergence programme. However, labour productivity develops more strongly in the EPC's scenario than in the Swedish convergence programme. On average, GDP per hour worked grows by 2.05 per cent per year from 2007 to 2050 in the EPC's estimates and by 1.82 per cent per year in the convergence programme. This stronger productivity growth leads to GDP in volume terms growing more rapidly in the EPC's estimates.

**Diagram B.1 Differences between the EPC and the convergence programme**



Source: Ministry of Finance.

Diagram B.1 illustrates the development of the number of hours worked, labour productivity, GDP and GDP per capita from 2007 forward in the EPC's projections compared with Sweden's convergence programme. The number of hours worked is smaller in the EPC's estimates than in the convergence programme. The stronger development in the convergence programme arises mainly at the beginning of the period, as a result of the measures to stimulate the labour supply determined by the Swedish government. Subsequently, the number of hours worked remains constant by age, gender and ethnicity<sup>17</sup>. Changes in the age structure then determine the development of the number of hours worked in the economy. In the EPC's estimates, it is assumed that the number of hours worked follows employment in the working population. In the long term, around 1 per cent fewer hours are worked in the EPC's estimates than in the convergence programme. Labour productivity develops more rapidly in the EPC's projection until the beginning of the 2030s, when nearly 13 per cent more goods and services are produced per working hour than in the Swedish convergence programme. After 2030, the situation reverses and productivity increases somewhat more rapidly in the scenario upon which the estimates in this publication are based, but the level of productivity is still 10 per cent higher in the EPC's estimates for 2050. The assumptions regarding the number of hours worked and labour productivity determine GDP. Consequently, GDP grows more rapidly in the EPC's projections until 2030. During subsequent years, the growth rate is somewhat slower in the EPC's projection, but the

<sup>17</sup> Ethnicity is divided into those born in Sweden and those born abroad.



GDP level is just over 5 per cent higher in the data used for the EPC's estimates. Long-term population growth is somewhat stronger in the Swedish data, leading to GDP per capita increasing somewhat more rapidly than GDP in the EPC's estimates than in the convergence programme.

The European Commission and the EPC have identified five expenditure items, which are affected by changes in the population structure. These age related expenditure items are pensions, health care, long-term care, education and unemployment transfers. Several factors affect the estimates of age related expenditure over the long term, apart from the demographic trend and the economic assumptions. These include the end point for the medium-term estimates, which serves as the starting point for the long-term scenario. The choice of calculation methods also affects the development of expenditure. An increase in the average life expectancy in the population forecast may, for example, be due to the addition of more healthy years to life expectancy. Such an assumption means that the costs of health care and care of the elderly do not increase at the same rate as the increase in the number of elderly people.

**Table B.2: Change in age related general government expenditure in EPC's estimates and in the Swedish convergence programme.**

*Proportion of GDP.*

	Change 2007-2050			Change 2007-2010			Change 2010-2050		
	Convergence programme	EPC	CP - EPC	Convergence programme	EPC	CP - EPC	Convergence programme	EPC	CP - EPC
Pensions	-0.7	0.0	-0.6	-0.1	0.1	-0.2	-0.6	-0.1	-0.5
Health care	0.3	1.0	-0.7	-0.2	0.1	-0.3	0.5	0.9	-0.4
Long-term care	2.3	1.8	0.5	0.1	-0.1	0.2	2.2	1.9	0.3
Education	-0.9	-0.6	-0.3	-0.3	-0.3	0.0	-0.7	-0.3	-0.4
Unemployment transfers	-0.3	0.0	-0.3	-0.2	0.0	-0.2	0.0	0.0	0.0
Total	0.7	2.1	-1.4	-0.7	-0.2	-0.5	1.4	2.4	-1.0

Note: CP is the abbreviation for convergence programme.  
Sources: European Commission and Ministry of Finance.

Table B.2 shows the increase in age related expenditure as a percentage of GDP in the EPC's estimates and in the Swedish convergence programme. In this publication, the total increase in demography-dependent expenditure during the period 2007–2050 is estimated at 0.7 percentage points of GDP. The equivalent increase is higher in the EPC's estimates, 2.1 per cent of GDP.

The change over time can be divided into the medium term (2007–2010) and the long term (2010–2050). In both estimates, expenditure is expected to be reduced until 2010, before the demographic pressure begins to be felt. This decline is sharper in the Swedish convergence programme than in the EPC's estimates. The reduction, which is 0.5 percentage points larger in the convergence programme, reflects the government's policy for its term of office.

As the number of elderly people increases, age related expenditure also increases in both the convergence programme and the EPC's estimates. The increase during the period 2010–2050 amounts to 1.4 percentage points of GDP in the convergence programme and 2.4 percentage points of GDP in the EPC's estimates. The reason is that productivity

growth is assumed to be slower in the Swedish convergence programme than in the EPC's estimates. Productivity growth guides wage growth in the economy and a large part of the cost of health care, care of the elderly and education consists of wage costs. With a lower increase in wage costs in the convergence programme, the increase in the cost of health care, care of the elderly and education is lower in the convergence programme than in the EPC's estimates. Pension expenditure also increases less in the convergence programme than in the EPC's estimates for the same reason. The lower productivity growth results in lower wage growth, which in turn leads to lower pension payments and thus a smaller increase in pension expenditure in the convergence programme. Expenditure on long-term care of the elderly increases more in the convergence programme than in the EPC's estimates, since it is assumed to be purely demographically determined in the Swedish convergence programme, while assumed health improvements and thus reduced care needs in connection with an increased life expectancy are taken into account in the EPC's estimates.

## Appendix C Tables

### Table C.1: Forecast assumptions

*Annual average, unless otherwise stated*

	2006	2007	2008	2009	2010
GDP, world <sup>1</sup>	5.4	5.1	4.9	4.7	4.5
GDP, eurozone <sup>1</sup>	2.8	2.6	2.2	2.1	2.0
HICP EU <sup>1</sup>	2.2	2.0	2.0	1.9	1.9
Hourly wages in Sweden <sup>1, 2</sup>	3.4	4.4	5.1	4.9	4.2
TCW index	127	124	122	121	122
SEK/EUR <sup>3</sup>	9.04	9.10	8.90	8.90	8.90
EUR/USD <sup>3</sup>	1.32	1.39	1.37	1.35	1.30
German 10-year government bond rate, annual average	3.78	4.39	4.89	4.80	4.60
Swedish 10-year government bond rate, annual average	3.70	4.37	5.00	5.13	4.85
Swedish 6-month interest rate, annual average	2.45	3.62	4.37	4.74	4.55
Oil price, (Brent, USD/barrel)	62	70	65	60	55

<sup>1</sup> Annual percentage change. <sup>2</sup> Definition in accordance with the National Accounts. <sup>3</sup> Exchange rate at year-end.  
Source: Ministry of Finance.

**Table C.2: General government finances***Per cent of GDP*

	Level 2006	2006	2007	2008	2009	2010
<b>Revenue</b>	<b>1,628</b>	<b>57.5</b>	<b>56.3</b>	<b>55.5</b>	<b>54.9</b>	<b>54.6</b>
Taxes and charges	1,419	50.1	48.7	48.0	47.6	47.4
Taxes	1,058	37.4	36.1	36.9	36.5	36.5
Direct taxes	573	20.2	18.9	18.6	18.8	18.8
Product and production taxes	486	17.1	17.2	18.3	17.8	17.6
Taxes on capital	0	0.0	0.0	0.0	0.0	0.0
Social security contributions	364	12.9	13.1	11.5	11.3	11.3
Capital income, consolidated	59	2.1	2.1	2.0	2.0	1.9
Other revenue	146	5.2	5.1	5.0	5.0	5.0
<b>Expenditure</b>	<b>1,558</b>	<b>55.0</b>	<b>53.3</b>	<b>52.6</b>	<b>51.8</b>	<b>51.1</b>
Wages incl. collective charges and consumption	724	25.6	25.3	24.8	24.6	24.3
Wages and collective charges	439	15.5	15.5	15.2	15.1	15.0
Consumption	285	10.1	9.8	9.7	9.5	9.3
Total social security transfer payments	559	19.7	18.6	18.0	17.8	17.7
in kind	85	3.0	3.0	3.0	2.9	2.9
transfer payments	474	16.7	15.6	15.0	14.9	14.9
EDP interest, consolidated	48	1.7	1.6	1.5	1.4	1.3
Subsidies	45	1.6	1.5	1.5	1.4	1.4
Investment	89	3.1	3.0	3.0	2.9	2.9
Other expenditure	94	3.3	3.3	3.7	3.5	3.5
<b>Net lending</b>	<b>70</b>	<b>2.5</b>	<b>3.0</b>	<b>2.8</b>	<b>3.1</b>	<b>3.6</b>
Primary net lending	118	4.2	4.6	4.4	4.5	4.8
Temporary effects	-14	-0.5	-0.4	-0.3	0.0	0.0
Structural balance	41	1.5	2.3	2.0	2.8	3.6
Primary structural balance	89	3.1	3.9	3.6	4.2	4.8
Central government	28	1.0	1.7	1.8	2.4	3.2
Old-age pension system	30	1.1	0.9	0.8	0.5	0.3
Local government	11	0.4	0.3	0.3	0.2	0.1

Sources: Statistics Sweden and Ministry of Finance.

**Table C.3: Consolidated gross debt***Per cent of GDP*

	2006	2007	2008	2009	2010
<b>Consolidated gross debt</b>	<b>47.0</b>	<b>39.7</b>	<b>34.8</b>	<b>29.8</b>	<b>24.5</b>
Change in gross debt	-5.2	-7.3	-4.9	-5.0	-5.3
<i>Contribution to change</i>					
Primary net lending	-4.2	-4.6	-4.4	-4.5	-4.8
Interest, consolidated	1.7	1.6	1.5	1.4	1.3
Stock flows	0.3	-1.5	0.1	-0.1	-0.4
Sale of shares	-0.4	-2.2	-1.6	-1.5	-1.4
Allocation of interest and taxes	0.3	-0.6	0.5	0.3	0.3
Old-age pension system investments excl. government bonds	0.7	0.9	0.7	0.5	0.3
Change in central government debt	-0.8	-0.1	-0.2	-0.1	0.0
Other	0.5	0.6	0.7	0.7	0.4
Nominal GDP growth	-3.0	-2.8	-2.2	-1.8	-1.4
Implicit interest	3.4	3.7	4.1	4.3	4.4

Sources: Statistics Sweden and Ministry of Finance.

**Other tables****Net lending by sector, in accordance with ESA 95***Per cent of GDP*

	2006	2007	2008	2009	2010
General government sector	2.4	2.9	2.8	3.1	3.6
Household sector	3.2	4.2	4.3	4.0	3.8
Corporate sector	0.9	0.1	0.1	0.3	0.3
Abroad	6.5	7.1	7.2	7.4	7.7

Source: Ministry of Finance.

**Demand and output**

	SEK billion 2006 <sup>1</sup>	Percentage change in volume				
		2006	2007	2008	2009	2010
Household consumption expenditure	1,338	2.8	3.0	3.8	3.2	2.3
General government consumption expenditure	759	1.8	1.6	1.0	0.2	0.0
Central government	207	0.8	0.3	-0.9	-0.6	-1.9
Local government	553	2.2	2.1	1.8	0.5	0.7
Gross fixed capital formation	507	7.9	9.4	4.6	3.5	3.4
Change in stocks <sup>2</sup>	0	-0.0	0.2	-0.0	0.0	0.0
Exports	1,451	8.7	5.3	6.0	6.0	6.0
Imports	1,225	7.9	7.4	6.5	6.5	6.3
<b>GDP</b>	<b>2,832</b>	<b>4.2</b>	<b>3.2</b>	<b>3.2</b>	<b>2.5</b>	<b>2.2</b>
<b>GDP, calendar adjusted</b>	<b>—</b>	<b>4.5</b>	<b>3.4</b>	<b>3.0</b>	<b>2.5</b>	<b>1.9</b>

<sup>1</sup> In current prices.<sup>2</sup> Contribution to GDP growth.

Sources: Statistics Sweden and Ministry of Finance.

## Exports and imports of goods

	SEK billion 2006 <sup>1</sup>	Percentage change in volume				
		2006	2007	2008	2009	2010
<b>Exports</b>						
Exports of goods	1,084	8.0	3.2	5.4	6.0	6.0
Processed goods <sup>1</sup>	886	8.3	3.7	5.6	6.0	6.0
Exports of services	368	10.7	11.4	7.8	6.0	6.0
<b>Total exports</b>	<b>1,451</b>	<b>8.7</b>	<b>5.3</b>	<b>6.0</b>	<b>6.0</b>	<b>6.0</b>
Export prices		2.7	1.6	-0.4	1.2	2.0
<b>Imports</b>						
Imports of goods	928	7.7	6.9	6.8	—	—
Processed goods <sup>2</sup>	683	9.8	8.4	8.2	—	—
Imports of services	296	8.5	9.0	5.8	—	—
<b>Total imports</b>	<b>1,225</b>	<b>7.9</b>	<b>7.4</b>	<b>6.5</b>	<b>6.5</b>	<b>6.3</b>
Import prices	—	3.5	0.0	-0.6	0.6	1.7

<sup>1</sup> In current prices.

<sup>2</sup> Classification according to SNI.

Sources: Statistics Sweden and Ministry of Finance.

## Household finances

	SEK billion 2006 <sup>1</sup>	Percentage change, current prices				
		2006	2007	2008	2009	2010
Real disposable income <sup>2</sup>	1,379	2.2	5.4	4.0	2.5	1.8
Price index <sup>3</sup>	—	1.3	1.5	2.2	2.4	2.4
<b>Nominal disposable income</b>						
of which	1,379	3.5	7.0	6.3	4.9	4.2
Wage bill <sup>4</sup>	1,137	5.4	7.1	6.4	5.2	4.0
Other factor income	249	5.8	6.4	6.9	4.6	4.2
Interest and dividends, net <sup>5</sup>	10	-0.3	0.1	-0.1	0.1	0.2
General government transfer payments	497	1.8	-0.9	2.4	4.2	4.8
Private transfer payments	44	-3.8	0.9	1.1	4.7	4.6
Taxes and charges	-559	5.3	-0.4	2.4	5.1	4.6

### Household saving

	SEK billion 2006 <sup>1</sup>	Percentage change, current prices				
		2006	2007	2008	2009	2010
Own saving	40	2.9	5.1	5.2	4.6	4.1
Net saving in pension fund reserves (incl. premium pension system)	81	5.9	5.8	5.9	6.0	6.1
<b>Total saving ratio<sup>6</sup></b>	<b>122</b>	<b>8.3</b>	<b>10.3</b>	<b>10.5</b>	<b>10.0</b>	<b>9.6</b>
<b>Net lending</b>	<b>92</b>	<b>6.6</b>	<b>8.5</b>	<b>8.7</b>	<b>8.2</b>	<b>7.8</b>

<sup>1</sup> In current prices.

<sup>2</sup> Household real disposable income is calculated by deflating nominal income by the implicit price index for household consumption expenditure.

<sup>3</sup> Implicit price index for household consumption expenditure.

<sup>4</sup> The wage bill is equivalent to the number of hours worked multiplied by hourly wages.

<sup>5</sup> For interest and dividends, the net contribution is stated in percentage change in volume.

<sup>6</sup> Total saving ratio = net saving including saving in pension fund reserves (incl. premium pension system) / (disposable income + net saving in pension fund reserves (incl. premium pension system)).

Sources: Statistics Sweden and Ministry of Finance.