

# Convergence Programme for Sweden

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2011 Update



REGERINGSKANSLIET

Government Offices  
of Sweden



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# 1 Introduction

In accordance with the council's regulation (EC) No 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 as a result of this 1999–2009.

Effective from 2010, reporting within the Stability and Growth Pact has been adjusted according to the European semester to strengthen the monitoring of fiscal policy. The convergence programme and national plan of action is therefore submitted in the spring. This allows budgetary and structural policy to be assessed consistently and recommendations to be made to member states while their budget processes are still at the preparatory stage.

This update of the convergence programme is based on the 2011 Spring Fiscal Policy Bill (Gov. Bill 2010/11:100) that the Government submitted to the Riksdag on 13 April 2011. The Riksdag's Standing Committee on Finance have been informed about the updated programme.

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<sup>1</sup> The Council's regulation (EC) No 1466/97 of 7 July 1997 regarding the reinforced monitoring of public finances and the monitoring of fiscal policy.

## 2 Economic policy framework and targets

### 2.1 Fiscal policy framework

Experience shows that a credible fiscal policy framework with clear targets and restrictions contributes strongly to well-designed fiscal policy. A tight budget process, a surplus-target for the public sector, a central government expenditure ceiling and a balanced budget requirement for the local government sector have been decisive in enhancing the credibility of fiscal policy in Sweden. The fiscal policy framework aims both at long-term sustainability and at avoiding fiscal policy being designed in such a way that it risks having short-term destabilising effects. The framework also aims to ensure that Sweden, as a member of the EU, complies with the regulations of the Stability and Growth Pact.

On 17 March 2011, the Government decided on a Communication regarding the design of the Swedish fiscal policy framework. This is a further step in increasing transparency in how fiscal policy is conducted, to thereby further strengthen confidence in Swedish fiscal policy being conducted in a long-term sustainable manner.

The Communication serves to institutionalise the principles applied by the Government in determining fiscal policy. The Communication also serves to summarise the fiscal policy framework in a single document as has been sought by the Swedish National Audit Office and the Fiscal Policy Council. With its Communication on the fiscal policy framework, the Government also increases awareness of, and support for, a number of key principles that guide the design and reporting of fiscal policy.

By clarifying the principles that guide fiscal policy, the Government also makes it easier for households, the business sector, the financial markets and external reviewers to predict and assess the fiscal policies that are implemented. This decreases uncertainty regarding future fiscal policies and enhances the conditions for fiscal policies to achieve the desired effects.

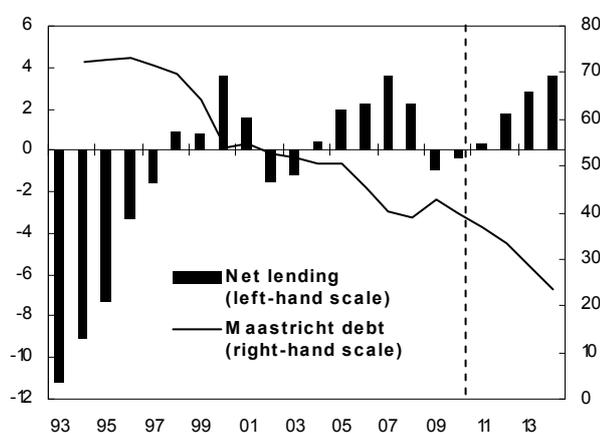
In 2007, the Government established a Fiscal Policy Council with the task of assessing whether fiscal policy targets are achieved and submitting its observations in an annual report. This further contributes to increasing openness and insight into fiscal policy. The Fiscal Policy Council is charged with assessing target fulfilment and the focus of fiscal policy, as well as examining whether the grounds on which economic policies are based are clearly specified in Spring Fiscal Policy Bills and Budget Bills. The Council shall also evaluate the quality of the Government's forecasts, data and calculation models, as well as working to promote public debate on economic policy.

Public finances have strengthened appreciably over the years that the framework has been in force. Diagram 1 shows general government net lending during the period 1993–2014, where the figures for 2011–2014 are forecasts.

In the 1990s, the general government sector reported major deficits in net lending. That situation has changed and in the period 2000–2010, an average surplus of 1.0 per cent of GDP was reported. Alongside favourable economic growth, this surplus has helped reduce central government debt in relation to GDP. Overall, the introduction of budget policy targets and a budget process with a clear top-down perspective have contributed to good budget discipline, which has strengthened the control of public finances and improved the conditions for economic stability and growth.

**Diagram 1 General government net lending and consolidated gross debt**

Per cent of GDP



Source: Statistics Sweden and own calculations.

*Surplus targets to provide an economic buffer, fairness between generations and social efficiency*

In 2000, following three-year phase-in, a target was introduced for general government net lending. Since 2010 the Government has a statutory requirement to propose a target for public sector net lending as well as to report how the target is fulfilled to the Riksdag at least twice in a budget year. The target entails fiscal saving by the general government sector amounting to 1 per cent of GDP over an economic cycle. The surplus target represents Sweden’s Medium-Term Objective (MTO) in accordance with the Stability and Growth Pact’s revised Code of Conduct.

The surplus target helps ensure that a certain buffer is in place to counter major economic declines and makes it possible to pursue an expansive financial policy without causing large, sustained deficits in the public finances. During major global recessions and stress in the international financial markets, small countries with their own currencies are often particularly exposed. In such situations, having room to

manoeuvre in terms of fiscal policy is a strength. During the recession of the early 1990s, a rapid and unexpected increase in the net lending and debt ratio of the central government caused a sharp increase in risk premiums, which considerably worsened the terms on which the Government could obtain credit. The fact that this has not occurred during the current recession is partly attributable to the fiscal policy framework now in place that has considerably enhanced confidence in the long-term focus of fiscal policy.

The surplus target is also motivated by the demographic trend. In Sweden, as in many other countries, the older cohorts of the population will increase tangibly over the next few decades. This trend will cause considerable strain on public finances due to higher age-related costs and, at the same time, an increased burden of support for the segment of the population in employment. Through relatively high public saving during demographically favourable years that markedly decreases national debt, large generation groups contribute to the financing of medical and other care services that they will require in the future. This contributes to fairness between generations. By enhancing conditions that make it unnecessary to raise the tax ratio as a consequence of demographic trends, it is also conducive to financial efficiency.

#### *The central government expenditure ceiling as an instrument for establishing priorities*

Central government expenditure ceilings were introduced in 1997. Since 2010 it is compulsory for the Government to propose, in its Budget Bill, an expenditure ceiling for the third additional year. The Riksdag sets the expenditure ceiling. The expenditure ceiling covers central government expenditure with the exception of the interest on central government debt and expenditure in the old-age pension system.

The central government budget process is characterised by a clear medium-term top-down perspective. The expenditure ceiling is the overarching restriction that limits the budget process in terms of total expenditure. After the ceiling is set for the third additional year, and until that year has passed, the need to prioritise between various expenditures is underscored. The medium-term perspective reduces the risk of temporarily high revenues being used to finance permanently higher expenditure. This also limits the risk of a destabilising (pro-cyclical) fiscal policy on the expenditure side of the budget.

The central government expenditure ceiling constitutes an important budget policy commitment, which promotes budget discipline and strengthens the credibility of economic policy. An important task for the expenditure ceiling is to provide conditions for achieving the surplus target, that is, to generate conditions for long-term sustainable finances. The level of the expenditure ceiling should also promote a desirable long-term development of central government expenditure. Alongside the surplus target, the expenditure ceiling directs the overall level of the

tax levy, thereby helping prevent a development whereby this must be gradually raised as a result of inadequate expenditure control.

The aspects considered by the Government in proposing the level of the expenditure ceiling for a new year are made clearer by the fact that they are justified based on the relationship between the ceiling and macroeconomic variables and how the expenditure ceiling can be applied to achieve the surplus target and an acceptable level for the combined tax levy. Examples of factors applied in setting the level include:

- The relation between the expenditure ceiling and the surplus target.
- The development of the expenditure ceiling and total general government expenditure in relation to GDP.
- The development of the ceiling-restricted expenditures and the scope of the budgeting margin over time.
- The development of the ceiling-restricted expenditures in fixed prices.

### *Local government balanced budget requirement supports the surplus target*

In order to strengthen the budget process at local level, a separate balanced budget requirement for the local government sector was introduced in 2000 in the Municipal Act (1991:900). This stipulates that each individual municipality and county council should budget for a balanced outcome. If a municipality or county council reports a deficit after the event, the deficit must, as a rule, be rectified within three years.

The local government balanced budget requirement is a minimum requirement. According to the Swedish Local Government Act, municipalities and county councils shall also follow principles of good financial management. This means that their budgets shall also take into account future costs such as major pension undertakings or investment needs.

## **2.2 Monetary policy target**

In Sweden, the Riksbank is responsible for monetary policy. In accordance with the Sveriges Riksbank Act (1988:1385), the objective of monetary policy is to maintain a stable monetary value. Changes to the Sveriges Riksbank Act in 1999 gave the Riksbank greater autonomy. The constitution states that no other authority may determine the Riksbank's decisions on matters of monetary policy. The independence of the decision-making Executive Board is also underscored by the Sveriges Riksbank Act which states that the members of the Board must not seek or receive instructions when performing their monetary policy tasks.

According to the Sveriges Riksbank Act, the objective of monetary policy is to maintain a fixed monetary value. The Riksbank has specified this as an inflation target entailing an annual change in the consumer price index (CPI) of 2 per cent.

At the same time as monetary policy is focused on achieving the inflation target, it shall support the objectives of general economic policy in achieving sustainable growth and a high level of employment. This is achieved by the Riksbank, in addition to stabilising inflation around the inflation target, also striving to stabilise production and employment around long-term sustainable development paths. Consequently, the Riksbank conducts what is termed a flexible inflation target policy. This does not mean that the Riksbank compromises on the priority of the inflation target.

It takes time for monetary policy to achieve full impact on inflation and the real economy. Monetary policy is therefore guided by economic forecasts. Among other things, the Riksbank publishes an assessment of how the repo rate will develop over the ensuing period. The interest rate path is a forecast, not a promise.

On the occasion of each monetary policy decision being made, the governors of the Riksbank assesses what repo rate path would be needed for monetary policy to be well balanced. This balancing normally entails finding a suitable equilibrium between stabilising inflation near the inflation target and stabilising the real economy.

There is no general answer as to how quickly the Riksbank aims to return inflation to 2 per cent if it deviates from the target. In certain situations, a rapid return may have undesired effects on production and employment, while a slow return can weaken the credibility of the inflation target. In general, the ambition has been to adjust interest and the interest path such that inflation is expected to be relatively close to the target in two years' time.

In September 2003, Sweden held a referendum on the introduction of the euro. The no vote result in the referendum on the introduction of the euro led to no changes in monetary and exchange rate policies. The government is responsible for overall exchange rate policy matters and decides on the exchange rate system, while the Riksbank is responsible for the application of the exchange rate system. The current monetary and exchange rate policy regime remains. Sweden's experience of an inflation target and a floating exchange rate is very favourable. Pegging the Swedish krona to ERM2 is not under consideration.

## 3 Economic policy

### 3.1 Fiscal policy

This section provides an overview of the change in combined budget effects, between different years, compared with reforms adopted, proposed and announced in previous years, including the financing of those reforms (see Table 1).<sup>2</sup> The Government's priorities are thus presented at a general level. The reforms accounted for involve both the expenditure and revenues sides of the central government budget. Indirect effects of expenditure reforms on the revenue side of the central government budget are not included.

**Table 1. Expenditure and revenue changes between 2011 and 2014 in relation to reforms adopted, proposed and announced in previous years, and their effect on general government net lending**

SEK billion, change in comparison with preceding year

|   | 2011        | 2012         | 2013        | 2014        |
|---|-------------|--------------|-------------|-------------|
| Expenditure changes <sup>1</sup>  |             |              |             |             |
| Change in ceiling-restricted expenditure <sup>2</sup>   | -4.1        | -8.5         | -2.5        | -1.7        |
| adjustment for differences between the accounting principles in the central government budget and the National Accounts |             |              |             |             |
| of which, support to municipalities and county councils <sup>3</sup>  | -5.8        | -4.4         | -2.8        | -0.4        |
| of which, loan-funded infrastructure investments <sup>4</sup>   | -13.0       | 0.0          | 0.0         | 0.0         |
| of which, capital contributions to government-owned companies   | 1.6         | -3.0         | -2.6        | 0.2         |
|   | 3.1         | 0.0          | 0.0         | 0.0         |
| <b>Total expenditure changes</b>  | <b>-9.9</b> | <b>-13.0</b> | <b>-5.3</b> | <b>-2.1</b> |
| Revenue changes   |             |              |             |             |
| Tax reforms   | -6.8        | -0.3         | 1.9         | 0.0         |
| Indirect effects of tax reforms   | -1.0        | 0.0          | -0.1        | -0.1        |
| Other revenue reforms   | 0.0         | 0.0          | 0.0         | 0.0         |
| <b>Total revenue changes, net</b>   | <b>-7.8</b> | <b>-0.2</b>  | <b>1.7</b>  | <b>-0.1</b> |
| <b>Change in general government net lending<sup>5</sup></b>   | <b>2.2</b>  | <b>12.7</b>  | <b>7.1</b>  | <b>2.0</b>  |

<sup>1</sup> Under expenditure changes, a minus sign reflects a decrease in an appropriation or the cessation or reduction in scope of a temporary programme. Under revenue changes, a minus sign reflects a decrease in tax revenues. For the combined budget effects of expenditure and revenue changes, a plus sign indicates a strengthening in general government net lending compared with the preceding year.

<sup>2</sup> Appropriation changes motivating a technical adjustment of the central government expenditure ceiling are not included. Appropriation changes as a result of the macroeconomic development, volume changes in transfer payment systems, etc. are not included.

<sup>3</sup> Temporary support totalling SEK 13 billion to maintain the level of economic activity was disbursed from the central government budget in December 2009 but was intended for use during 2010. Consequently, in the National Accounts, this support has been allocated to 2010, which also better reflects the focus of fiscal policy.

<sup>4</sup> This item shows the change in net borrowing for road and rail needs. Net borrowing comprises the difference between new borrowing and amortisations.

<sup>5</sup> Excluding indirect effects of expenditure changes on the revenue side of the central government budget.

Source: Own calculations.

<sup>2</sup> The proposals presented in the Spring Adjustment Budget for 2011 (Gov. Bill 2010/11:99) are also included.

In 2011, temporary support to municipalities will be phased out and the public finances will be strengthened somewhat, despite a reduction in taxes. Over the ensuing three years, finances will strengthen by SEK 21.8 billion, mainly as a consequence of temporary ventures on the expenditure side being concluded or scaled back.

Expenditures in the central government budget, adjusted to agree, in accounting terms, with net lending, will, as a consequence of decisions, decrease by SEK 9.9 billion in 2011 in relation to the immediately preceding year. In 2012 expenditure is also expected to decrease – during that year by SEK 13.0 billion. The decreases can largely be explained by several major temporary stimulus measures, including support to municipalities and county councils and investments in infrastructure and training. Combined, these were greatest in 2010 and will subsequently decline as the economy recovers, entailing decreasing expenditure between the years. In 2013 and 2014 expenditure will decrease by a total of SEK 7.4 billion.

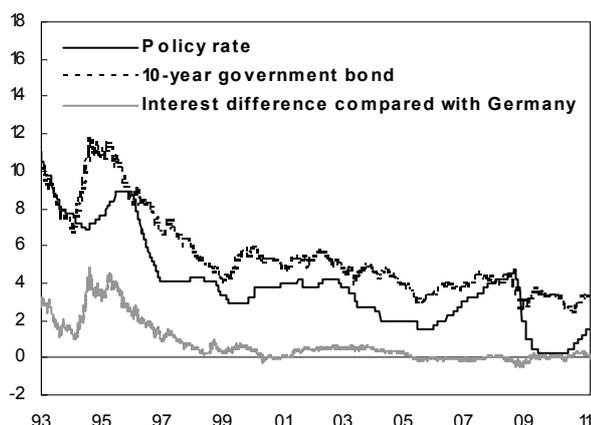
Revenue will decline by SEK 7.8 billion in 2011 as a result of reforms, including a changed basic deduction. During the period 2012–2014, revenue will increase by a total of SEK 1.4 billion.

### **3.2 Monetary policy**

Diagram 2 shows trends in a selection of interest rates in Sweden from 1993. Starting in October 2008, the Riksbank cut its repo rate from 4.75 per cent to 0.25 per cent to mitigate the effects of the financial crisis and to soften the decline in the real economy. Interest on ten-year government bonds also fell in the autumn of 2008 but then rose somewhat in 2009 as a response to uncertainty regarding the central government's future finances. As uncertainty regarding the status of the central government finances abated, the bond rate was pushed down again during 2010. As the Swedish economy has recovered and inflationary pressure has begun to rise, the Riksbank has gradually raised its key rate since the summer of 2010.

## Diagram 2 Interest rates in Sweden

Per cent

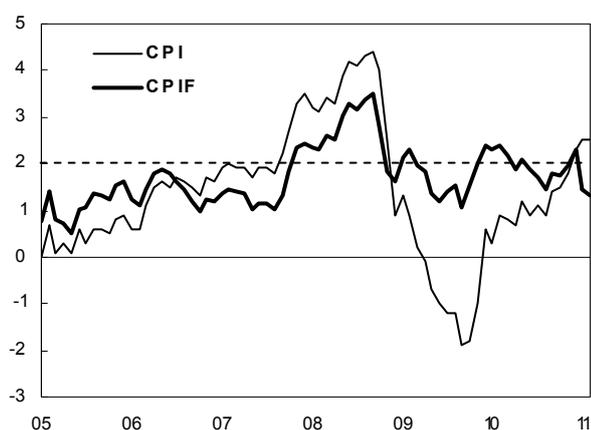


Source: Reuters.

Inflation, measured as the percentage change in the consumer price index (CPI), fell rapidly in the autumn of 2008. The dramatic decline was primarily attributable to lower interest expenses for mortgages, but also to lower energy costs. Since the end of 2010, CPI inflation has risen and is currently at about 2 per cent per year. In assessing the price trend, it is also possible to calculate a measure of underlying inflation, where for example CPIF denotes CPI at fixed mortgage rates. This means that CPIF is not directly affected by fluctuations in mortgage rates. Since mid-2007, the CPIF trend has fluctuated at around 2 per cent annually.

## Diagram 3 Inflation measured as CPI and CPIF

Annual change in per cent



Source: Statistics Sweden.

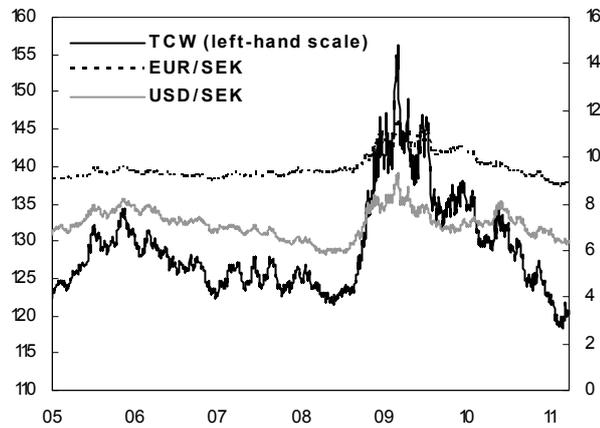
Sweden has had a floating exchange rate since November 1992. Diagram 4 shows the development of the Swedish krona against the TCW index<sup>3</sup>, the euro and the US dollar in 2005–2011. The turbulent situation in the financial markets led to the krona, like many other small currencies,

<sup>3</sup> The TCW index (Total Competitiveness Weights) measures the value of the Swedish krona against a basket of other currencies.

weakening in 2008. The krona has since strengthened considerably. In TCW terms, the Swedish krona is as strong now as it was before the outbreak of the financial crisis.

**Diagram 4 Development of the Swedish krona against the TCW index, the euro and the US dollar**

TCW index (left-hand scale), EUR/SEK, USD/SEK (right-hand scale)



Source: Reuters.

## 4 Macroeconomic trend

### 4.1 International and financial economy

#### *Slow international recovery*

The global economy is in a phase of recovery. The economic recovery builds on strong domestic demand in the growth economies and on expansive fiscal policies in large parts of the world. This has contributed to a considerable upswing in global trade, benefiting exporting countries such as Sweden.

However, the picture of the global economy is disparate. In the growth economies, resource utilisation has increased relatively quickly and fiscal austerity measures are expected to moderate future growth. Nonetheless, the growth economies, which have a higher potential for growth than the rest of the global economy, will continue to drive growth in the global economy over the next few years.

At the same time, GDP growth is expected to be moderate over the next few years in areas including the euro zone and the US, despite resource utilisation currently being very low. A contributing factor is that several euro zone countries and the US have weak public finances and will therefore pursue austere fiscal policies. Utilisation of resources will therefore rise slowly and the recovery will be characterised by low growth.

On the whole, the recovery in the global economy is expected to continue over the period 2011-2015, albeit at a slower pace than in 2010. Global GDP is expected to rise by about 4.5 per cent per year over the next few years and demand in the global market is expected to rise by nearly 7 per cent per year.

Step by step, the international financial markets have begun to function better. However, weak central government finances in several European countries have caused a certain degree of continued unease in the interest and credit markets in 2010. The support package from the International Monetary Fund, the euro countries and the EU, together with announced fiscal austerity measures, have contributed to the situation in the financial markets stabilising somewhat. Nonetheless, the basic problems in the central government finances of several southern European countries and Ireland remain, as reflected by the high risk premium they must pay on their borrowing.

Other differences in interest rates in Europe, for example between interbank and government bond rates with short maturities (known as the TED spread), continue to be somewhat higher than normal. This indicates that the situation in the financial markets has not yet fully normalised.

## 4.2 Swedish economy

### *Rapid economic growth in Sweden in 2011 and 2012*

The Swedish economy found itself in a strong phase of recovery in 2010, with GDP rising by 5.5 per cent (see Table 2).<sup>4</sup> Several interacting factors lie behind the turnaround. The global economic recovery and strongly increasing global trade resulted in demand for Swedish export products rising rapidly. A continued expansive fiscal policy, a clear turnaround in the labour market and decreased uncertainty led to household consumption increasing strongly. At the same time, companies grew increasingly optimistic and increased their investments and built up their inventories. The general government consumption rose strongly due to higher central government contributions to the local government sector.

The recovery is attributable to both high domestic demand and international recovery. Unlike the economic upswing following the crisis in the 1990s, household consumption and companies' investments are considered to be a more dominant force than exports in the recovery over the next few years. On the whole, this trend will result in a high level of GDP growth this year and next. GDP is expected to grow by 4.6 per cent in 2011 and by 3.8 per cent in 2012.

**Table 2 Balance of resources**

Annual percentage change in volume, unless otherwise stated

|  | SEKbn        | 2010       | 2011       | 2012       | 2013       | 2014       |
|--|--------------|------------|------------|------------|------------|------------|
|  | 2009         |            |            |            |            |            |
| Household consumption expenditure          | 1 527        | 3.5        | 3.9        | 4.0        | 3.3        | 2.7        |
| General government consumption expenditure | 858          | 2.6        | 0.9        | 0.6        | 0.6        | 0.6        |
| Gross fixed capital formation              | 550          | 6.3        | 10.4       | 8.8        | 6.4        | 4.8        |
| Changes in inventories <sup>1</sup>        | -47          | 2.1        | 0.0        | -0.3       | 0.0        | 0.0        |
| Exports                                    | 1 495        | 10.7       | 9.2        | 7.0        | 7.0        | 6.4        |
| Imports                                    | 1 294        | 12.7       | 9.1        | 7.3        | 6.6        | 6.5        |
| <b>GDP</b>                                 | <b>3 089</b> | <b>5.5</b> | <b>4.6</b> | <b>3.8</b> | <b>3.6</b> | <b>2.8</b> |
| GDP, calendar adjusted                     | 3 090        | 5.3        | 4.6        | 4.1        | 3.6        | 2.9        |

<sup>1</sup> Changes in inventories are expressed in terms of their contribution to GDP growth (percentage points) and not as percentage change in volume.

Note: Fixed prices, reference year 2009.

Sources: Statistics Sweden and own calculations.

Despite the strong recovery in 2010, resource utilisation in the economy as a whole remains low (see Table 3). This favours strong development in the Swedish economy over the next few years.

### *Very strong increase in employment in 2011*

The rapid rise in production and increasing optimism in the business sector have contributed to increased employment. Consequently, the decline in employment in connection with the financial crisis has already

<sup>4</sup> Tables C.1–C.7 in Appendix C provide further information on the forecast in the 2011 Spring Fiscal Policy Bill.

been recovered. Forward-looking indicators, such as recruitment plans and newly announced job vacancies, combined with a continued strong increase in production, suggest a very rapid increase in employment in 2011 (see Table 3). As in 2010, growth in employment in 2011 is expected to particularly strong in the construction sector and in certain service industries, such as company and household services sector (including, for example, health care and education companies). In total, employment is expected to increase by slightly more than 110 000 individuals in 2011.

**Table 3 Selected statistics**

Annual percentage change, unless otherwise stated

|   | Thousands of persons |      |      |      |      |      |
|---|----------------------|------|------|------|------|------|
|   | 2009                 | 2010 | 2011 | 2012 | 2013 | 2014 |
| Employed, 15-74 years of age                | 4 499                | 1.1  | 2.5  | 1.4  | 1.3  | 1.1  |
| Unemployed, 15-74 years of age <sup>1</sup> | 408                  | 8.4  | 7.3  | 6.6  | 5.8  | 5.2  |
| Hours worked <sup>2</sup>                   |                      | 1.9  | 1.9  | 2.0  | 1.8  | 1.3  |
| GDP gap <sup>3</sup>                        |                      | -3.8 | -1.9 | -0.7 | -0.1 | 0.1  |
| Increase in hourly wages <sup>4</sup>       |                      | 2.5  | 2.6  | 3.2  | 3.4  | 3.5  |
| CPI, annual average                         |                      | 1.2  | 2.5  | 2.0  | 2.8  | 2.7  |

<sup>1</sup> Per cent of the labour force.

<sup>2</sup> Calendar-adjusted.

<sup>3</sup> Per cent of potential GDP level.

<sup>4</sup> Throughout the economy, according to economic wage statistics.

Sources: Statistics Sweden and own calculations.

The increase in employment has been broad in several senses. For one thing, employment has risen in most business sectors. For another, both permanent and temporary recruitments have risen. The increase in permanent recruitments is an indication of a robust upswing. However, the increase in employment is unevenly divided between different levels of education. Employment has risen strongly among those with higher education, but not at all among those with at most lower-secondary education, which was also the group hit hardest by the economic slump in the wake of the financial crisis.

In the general government sector, the trend is divided. Employment in the central government sector increased in 2010, while the number of people employed by the local government sector continued to decline. The decrease in employment in the local government sector is attributable, among other things, to certain areas of local government services, such as education and care of the elderly, increasingly being provided by companies in the private sector. This transfer of welfare services has helped increase the number of people employed by the private sector. At the same time, this means that employment financed by taxes has not decreased to the same extent as employment within the local government sector.

### *Continued low utilisation of resources in the labour market over the next few years*

Despite the strong recovery, there are still thought to be additional resources available in the labour market. The clearest indication of this is high unemployment (7.3 per cent in 2011) – about 1 percentage point higher than ambient unemployment is expected to be for 2011.

In the Economic Tendency Survey by the National Institute of Economic Research, an increasing proportion of companies in most sectors name a labour shortage as an impediment to increasing production. This suggests that companies need to increase their labour force to meet rising demand. Other indicators of resource utilisation in the labour market show that there are still resources available in the labour market.<sup>5</sup>

On the whole, employment is estimated to be able to increase significantly over the next few years without incurring any major shortage of labour in the labour market. This is reflected by the expectation of a negative employment gap for 2011-2013.

### *Higher rate of wage increases as resource utilisation increases*

The 2010 round of wage negotiations involved about 3.3 million employees. The agreement period is generally about two years. The agreements reached for salaried employees in the business sector were for a shorter period, 18 months, and will thus already fall due for renegotiation in the autumn of 2011. The weak utilisation of resources in the labour market is reflected clearly by the agreed wage increases. The central agreements are considerably lower than those negotiated in the 2007 round of negotiations. Wages in the business sector are expected to rise by 2.6 per cent in 2011, according to the definition applied in the economic wage statistics. According to the definition applied in the National Accounts, wages are expected to rise by 2.4 per cent. These two wage measures differ primarily in the inclusion of various types of remunerations, such as bonuses and holiday pay in the National Accounts but not in the economic wage statistics.

As the situation in the labour market improves, wages are expected to rise faster, albeit at a relatively modest rate over the next few years. When new central agreements are to be negotiated next time, around the end of 2011/start of 2012, the economy will be considerably stronger than it was when the current agreements were signed. Consequently, both the central agreements and wage increases outside those agreements are expected to be higher in the next round of negotiations. Taking into account the productivity trend, companies' price trends, profit trends and the Government's reforms, companies' labour costs are expected to rise by 3.7 per cent per year in 2012-2014. Hourly wages in the business

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<sup>5</sup> Statistics Sweden's statistics regarding the time it takes for companies to recruit and the Swedish Public Employment Service's survey of companies' opportunities to find the right personnel

sector are also expected to rise by 3.7 per cent annually in 2012-2014, according to the definitions applied in the National Accounts.

### *Low underlying inflation pressure in 2011 and 2012*

Underlying inflation measured as CPIF (CPI at fixed interest rates) is clearly below 2 per cent per year for 2011 and 2012. This is mainly due to the low utilisation of resources and the fact that companies' costs per unit produced are slowly rising. As the economic situation improves and companies' unit labour costs rise faster, the rate of price increases on goods and services will rise in 2013-2014. CPIF will gradually rise to about 2 per cent from 2013 and onwards.

Inflation measured as CPI will rise substantially over the next few years, to about 2.8 per cent in 2013 and 2014. The greater increase in CPI than in CPIF is largely due to household mortgage rates rising as the Riksbank raises its repo rate. Consequently, the discrepancy between inflation measured as CPIF and as CPI will be historically large over the next few years. In the long term, when the effect of changed interest rates no longer affects CPI, inflation in terms of CPI and CPIF will converge.

## **4.3 Household borrowing**

Real estate prices in Sweden have risen strongly over an extended period (see Diagram 5). Lower mortgage rates and increased real disposable income, but also changes in property taxes, have affected households' opportunities to bear a greater burden of debt and have had a positive impact on the price trend. In parallel, Swedish households' borrowing has increased steadily and passed, in the middle of the first decade of the new millennium, the previous record level from the end of the 1980s. Borrowing, measured as the household sector's combined debt in relation to its total disposable income (debt ratio), currently amounts to about 160 per cent. To mitigate the risks associated with rising borrowing, Finansinspektionen (the Swedish Financial Supervisory Authority) introduced on 1 October 2010 new general guidelines for the approval of mortgages to the effect that new mortgages should not exceed 85 per cent of the market value of the home.

### Diagram 5 Property price index, Sweden

Index 1981=100

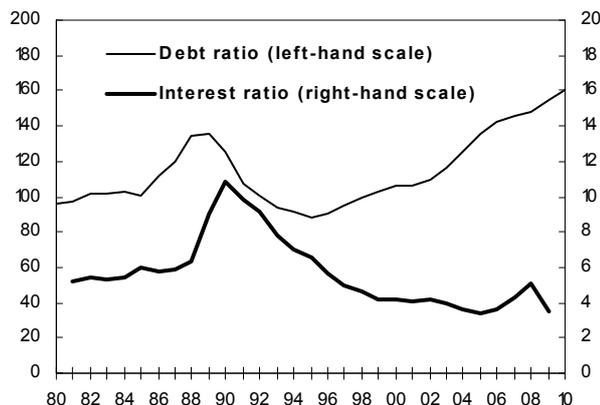


Source: Statistics Sweden.

A high level of borrowing exposes households to volatility in interest rates as well as tightening in the availability of credit. Home price fluctuations can have major consequences for the development of the real economy through household consumption. An indicator of households' capacity to service their debt is provided by their interest expenses after tax as a proportion of their disposable income (interest ratio). Since the end of the 1990s, the debt ratio has risen while the interest ratio has fallen (see Diagram 6). This is primarily due to reduced interest levels which in turn depends on the reorganisation of the monetary policy regime entailing lower and more stable inflation. In the wake of the financial crisis in the autumn of 2008, interest rates were also pushed down to historically very low levels. On the whole, costs for household borrowing have declined, despite the debt ratio having risen.

### Diagram 6 Households' debt and interest ratios

Per cent of disposable income



Source: Riksbank and Statistics Sweden.

## 5 Public finances

### 5.1 Accounting principles

This section details the forecast for the public finances given in the 2011 Spring Fiscal Policy Bill. The reporting of general government net lending, as in the Spring Fiscal Policy Bill, complies with EU regulations for the National Accounts (ESA 95). Revenue and expenditure are consequently 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 principle 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>6</sup> Table 4 shows general government finances according to ESA 95 and EDP. A detailed account of general government finances according to EDP is provided in Table C.8 in Appendix C.

**Table 4 General government finances according to ESA 95 and EDP**

Per cent of GDP

|                          | 2010 | 2011 | 2012 | 2013 | 2014 |
|--------------------------|------|------|------|------|------|
| <b>ESA 95 and SFPB11</b> |      |      |      |      |      |
| Revenue                  | 50.7 | 50.1 | 50.3 | 50.2 | 50.2 |
| Expenditure              | 51.1 | 49.8 | 48.5 | 47.4 | 46.6 |
| Net lending              | -0.3 | 0.3  | 1.8  | 2.8  | 3.6  |
| <b>EDP and SGP</b>       |      |      |      |      |      |
| Revenue                  | 52.7 | 51.9 | 52.1 | 51.9 | 51.9 |
| Expenditure              | 52.7 | 51.3 | 50.0 | 49.0 | 48.2 |
| Net lending              | 0.0  | 0.6  | 2.0  | 2.9  | 3.7  |

Note.: SFPB11 = 2011 Spring Fiscal Policy Bill.  
Sources: Statistics Sweden and own calculations.

### 5.2 The development of public finances

The Swedish economy has weathered the financial crisis without major deficits arising in general government net lending. The favourable starting point, with a surplus of 2.2 per cent of GDP in 2008, made it possible to counteract the strong economic downswing through fiscal stimuli without jeopardising the public finances. In 2009, net lending showed a deficit of only 0.9 per cent of GDP and in 2010, the deficit was only 0.3 per cent of GDP. Consequently, Sweden is one of only three

<sup>6</sup> Compared with ESA 95, the effect of swaps on interest flows, and revenues and expenditure are defined somewhat differently in these contexts.

EU member states not subject to the Excessive Deficit Procedure within the framework of the Stability and Growth Pact.

The recovery in the economy is contributing to a gradual strengthening of net lending. As early as in 2011, the deficit will be replaced by a surplus that will then increase to the equivalent of 3.6 per cent of GDP in 2014. This strengthening is mainly taking place through expenditure decreasing as a percentage of GDP (see Table 5).

**Table 5 General government finances**

Per cent of GDP, unless otherwise stated

|                                | SEKbn        |              |              |              |              |              |
|--------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                                | 2010         | 2010         | 2011         | 2012         | 2013         | 2014         |
| <b>Revenue</b>                 | <b>1 675</b> | <b>50.7</b>  | <b>50.1</b>  | <b>50.3</b>  | <b>50.2</b>  | <b>50.2</b>  |
| Taxes and charges              | 1 503        | 45.5         | 44.9         | 45.1         | 45.1         | 45.2         |
| Household direct taxes         | 524          | 15.9         | 15.4         | 15.6         | 15.6         | 15.6         |
| Corporate direct taxes         | 110          | 3.3          | 3.5          | 3.5          | 3.5          | 3.5          |
| Social security contributions  | 399          | 12.1         | 12.0         | 12.0         | 12.1         | 12.1         |
| Indirect taxes                 | 470          | 14.2         | 14.0         | 14.0         | 13.9         | 13.9         |
| Capital income                 | 60           | 1.8          | 2.0          | 2.0          | 2.0          | 2.0          |
| Other revenues                 | 113          | 3.4          | 3.2          | 3.1          | 3.1          | 3.0          |
| <b>Expenditure</b>             | <b>1 686</b> | <b>51.1</b>  | <b>49.8</b>  | <b>48.5</b>  | <b>47.4</b>  | <b>46.6</b>  |
| Transfer payments              | 646          | 19.6         | 18.5         | 18.2         | 17.8         | 17.4         |
| Consumption                    | 899          | 27.2         | 26.6         | 26.1         | 25.6         | 25.2         |
| Investment                     | 109          | 3.3          | 3.4          | 3.1          | 2.9          | 2.9          |
| Interest expenditure           | 33           | 1.0          | 1.3          | 1.2          | 1.1          | 1.1          |
| <b>Net lending</b>             | <b>-11</b>   | <b>-0.3</b>  | <b>0.3</b>   | <b>1.8</b>   | <b>2.8</b>   | <b>3.6</b>   |
| Primary net lending            | -38          | -1.1         | -0.4         | 0.9          | 1.9          | 2.7          |
| <b>Consolidated gross debt</b> | <b>1 313</b> | <b>39.8</b>  | <b>36.8</b>  | <b>33.4</b>  | <b>28.8</b>  | <b>23.7</b>  |
| <b>Net debt</b>                | <b>-712</b>  | <b>-21.6</b> | <b>-21.3</b> | <b>-22.1</b> | <b>-23.7</b> | <b>-26.3</b> |

Sources: Statistics Sweden and own calculations.

### *Stable revenues*

In 2011, tax revenues and other revenues will decrease in relation to GDP. The decline is mainly a consequence of household direct taxes growing more slowly than GDP. This is partly due to the tax reduction for pensioners, but mainly to total wages and taxable transfer payments decreasing in relation to GDP. In 2012, tax revenues will increase somewhat as a percentage of GDP and they will then develop roughly in pace with GDP.

### *Gradually lower expenditure*

The expenditure ratio, that is, expenditure in relation to GDP, which rose strongly in 2009, declined in 2010 and is expected to continue falling throughout the forecast period. Since revenues as a percentage of GDP are largely unchanged as of 2012, it is mainly the decreased expenditure ratio that will result in the strengthening of net lending. With normal economic growth and without additional discretionary fiscal measures, it is normal for expenditure to decline as a percentage of

GDP. This is due, among other things, to expenditures not being indexed and temporary programmes no longer being included in the figures. Over the next few years, the economic recovery will also bring a decrease in unemployment expenditure.

Over the forecast period, general government consumption will increase in volume, while decreasing as a percentage of GDP. General government investments, like transfer payments, are increasing more slowly than GDP. In 2011, transfer payments will decrease as a percentage of GDP, mainly as a consequence of weak development in pensions. However, pensioners' finances will be strengthened by a tax cut that is expected to be decided in 2011. Transfer payments related to illness, which have declined over a period of several years, are expected to continue declining as a percentage of GDP. The improvement in the labour market will lead to decreased expenditure on labour market-related income support and social assistance. Interest expenditure will increase relatively strongly this year as a result of rising interest rates. However, decreased central government debt means that interest expenditure is expected to remain nominally unchanged in 2012-2014, meaning that it will decline as a percentage of GDP.

#### *Surplus emerges in central government finances*

The deficit in general government net lending in 2010 was incurred in the finances of the central government. This was attributable, above all, to expansive fiscal policies, involving tax cuts and temporary support to the local government sector. Over the forecast period, the central government's net lending, budget balance and debt will decrease. The relatively weak development of pensions in 2011 will help strengthen the surplus in the old-age pension system in 2011. For the local government sector, negative net lending is expected over the forecast period (see Table 6).

**Table 6 Net lending and the central government budget balance**

Per cent of GDP

|                                       | 2010        | 2011       | 2012       | 2013       | 2014       |
|---------------------------------------|-------------|------------|------------|------------|------------|
| <b>General government net lending</b> | <b>-0.3</b> | <b>0.3</b> | <b>1.8</b> | <b>2.8</b> | <b>3.6</b> |
| Central government                    | -0.5        | 0.1        | 1.7        | 2.7        | 3.5        |
| Old-age pension system                | 0.2         | 0.4        | 0.3        | 0.2        | 0.2        |
| Local government sector               | 0.1         | -0.2       | -0.2       | -0.1       | -0.1       |
| Central government budget balance     | -0.0        | 1.2        | 2.2        | 3.4        | 4.3        |
| Central government debt               | 33.7        | 30.6       | 27.1       | 22.5       | 17.3       |

Sources: Statistics Sweden, National Financial Management Authority and own calculations.

### 5.3 Net financial wealth and consolidated gross debt

#### *Gross debt decreases over forecast period*

The general government sector's consolidated gross debt (the "Maastricht debt" defined by the EU regulations) is used in the assessment of the member states' public finances. For Swedish conditions, the definition implies that the debt consists, in principle, of central government debt and the local government sector's liabilities in the capital market, less deductions for the National Swedish Pension Funds' (the AP Funds) holdings of government bonds.

Prior to Sweden's accession to the EU at the end of 1994/start of 1995, the consolidated gross debt amounted to SEK 1 216 billion, corresponding to 72 per cent of GDP. Since then, the nominal value of the debt has fluctuated somewhat and amounted to SEK 1 313 billion at the close of 2010. As a percentage of GDP, however, the debt has decreased substantially to 39.8 per cent. The reference value within the EU is set at 60 per cent of GDP.

Between 2010 and 2014, the gross debt will also decline in nominal terms. Surpluses in the central government's finances will be the predominant contributory factor in this development. The debt will be further diminished as a result of divestments of shareholdings in government-owned companies. Combined, the consolidated gross debt is expected to decline by SEK 374 billion between 2010 and 2014. Of this decline, SEK 100 billion is the result of divestments of central government's shareholdings that have already been implemented or that have been assumed for calculation purposes. The strong growth in GDP over the forecast period will contribute to the debt declining to 23.7 per cent of GDP by the close of 2014.

#### *Positive net position*

At the close of 2010, the general government sector's net financial wealth amounted to SEK 712 billion, corresponding to 21.6 per cent of GDP. Since 2005, net financial wealth has been positive, that is, the financial assets exceed the liabilities. The general government sector's capital revenues, in the form of interest and dividends, also exceed its interest expenditure. The general government sector's financial assets primarily involve the old-age pension system's buffer funds (the AP Funds), while the central government has a net debt.

The general government's net financial wealth rose by nearly SEK 100 billion in 2010. Value changes, through price increases on the stock market, and on central government debt in foreign currency helped strengthen the net financial position last year, despite net lending having been negative. The forecast includes no other value changes beyond the effects of predicted currency exchange fluctuations on central government debt. Between 2010 and 2014, net financial wealth is expected to increase by SEK 337 billion; amounting to SEK 1 049 billion at the close of 2014, corresponding to 26.3 per cent of GDP.

## 5.4 Checking the surplus target

The surplus target entails net financial saving by the general government sector corresponding to 1 per cent of GDP over an economic cycle. The definition of the target in terms of an average over a business cycle instead of an annual requirement of 1 per cent is justified for stabilisation policy reasons. With an annual net lending target of 1 per cent of GDP, fiscal policy would need to be contractionary in a recession, and vice versa, to ensure fulfilment of the annual target. The policy would therefore be pro-cyclical, meaning that it would accentuate economic fluctuations and the automatic stabilisers would not be able to act freely.

At the same time, the formulation of the target makes it difficult to evaluate on an annual basis that fiscal policy is in line with the target. Since neither the length of a business cycle nor the degree of resource utilisation (measured as the GDP gap) can be determined with any certainty, the surplus target is monitored using three mutually complementary indicators:

- The ten-year indicator.
- The seven-year indicator.
- Structural saving.

To follow up the surplus target and systematically assess the scope for reforms, the Government uses the three indicators in different ways. The “ten-year indicator” is a ten-year historic average of net lending. Based on this retrospective indicator, an initial assessment is made as to whether the target has been achieved on average and whether there have been any systematic errors in fiscal policies over the preceding years that could affect the possibility of achieving the surplus target over the ensuing years. This assessment also takes into account the average economic situation over the relevant historic period. This is achieved by calculating the average GDP gap for the period.

With this retrospective assessment as the point of departure, a forward-looking assessment is then made of the scope for reform or the need for savings based on the structural balance and the “seven-year indicator”. The structural balance aims to show how large net lending should be if the economic situation were normal. The seven-year indicator is a moving average of net lending for a particular year and the three years prior to and following that year. Net lending is adjusted for major non-recurring effects. To a certain extent, the indicator takes the economic situation into account since it represents an average over several years. Since these years do not necessarily comprise equal numbers of prosperous and recessionary years, the economic situation is taken into account by calculating a cyclically-adjusted version alongside the seven-year indicator. The average GDP gap over the relevant years is used in this context. Both the value of the seven-year indicator and the effect of the cyclically-adjustment are taken into account when checking

progress relative to the surplus target. The structural balance represents an adjustment of net lending, taking the economic situation, in terms of the GDP gap, into account. In addition, net lending is adjusted for major non-recurring effects and extraordinary levels in household capital gains.

The fact that the economic scenario cannot be unequivocally quantified means that the surplus target must be checked on the basis of a combined assessment of the various indicators. Several other factors are weighed in in this combined assessment, including the uncertainty in the assessment and the risk scenario.

The assessment of the structural balance is associated with a high level of uncertainty besides the uncertainty associated with the net lending forecast. In the first place, economic cycles can be asymmetric, such that deficits occurring during a deep recession are not weighed up by the surpluses occurring during the subsequent period of prosperity. Consequently, this implies that the structural balance, as quantified by the Government, overestimates the extent to which the target is achieved. In the second place, the assessment of resource utilisation is uncertain. The view of the GDP gap is frequently revised both retroactively and proactively, due not only to a changed view on the economic situation but also to revisions of outcome statistics for actual GDP. In the third place, the assessment of sensitivity of general government net lending to the economic cycle is uncertain. The assessment builds on an empirical appraisal of an average relation over a certain period of time.

**Table 7 Net lending in the general government sector and indicators for checking the surplus target**

Per cent of GDP, unless otherwise stated

|  | 2010        | 2011        | 2012        | 2013        | 2014       |
|--|-------------|-------------|-------------|-------------|------------|
| <b>Net lending</b>                           | <b>-0.3</b> | <b>0.3</b>  | <b>1.8</b>  | <b>2.8</b>  | <b>3.6</b> |
| Ten-year indicator                           | 0.8         |             |             |             |            |
| Adjusted for economic situation <sup>1</sup> | 1.3         |             |             |             |            |
| Seven-year indicator                         | 1.3         | 1.3         | 1.6         |             |            |
| Adjusted for economic situation <sup>1</sup> | 2.1         | 2.3         | 2.7         |             |            |
| Structural balance                           | 1.9         | 1.4         | 2.2         | 2.9         | 3.6        |
| <b>GDP gap, per cent of potential GDP</b>    | <b>-3.8</b> | <b>-1.9</b> | <b>-0.7</b> | <b>-0.1</b> | <b>0.1</b> |
| Ten-year historical average                  | -0.9        |             |             |             |            |
| Seven-year average, moving                   | -1.4        | -1.8        | -1.9        |             |            |

<sup>1</sup> The adjustment for the economic situation is achieved by multiplying the GDP gap by the elasticity (-0.55) which is added to the indicator value. Sources: Statistics Sweden and own calculations.

### *Ten-year indicator*

In 2001-2010, general government net lending corresponded on average to 0.8 per cent of GDP. In other words, net lending was somewhat below the target level. Over the same period, the average GDP gap was -0.9 per cent of potential GDP. If the ten-year average is adjusted by the elasticity applied by the Government for general government net lending

with regard to the GDP gap of 0.55 and the average GDP gap over the period, the retrospective ten-year average amounts to 1.3 per cent of GDP.

This outcome indicates that net lending has, on average, been slightly higher than the surplus target over this period when taking the average economic situation into account. In summary, the analysis does not indicate any major historical systematic errors in fiscal policy that would affect the achievement of targets in the future.

### *Seven-year indicator*

The seven-year indicator is at its lowest for 2010 and 2011, when it is 1.3 per cent of GDP. It will then rise to 1.6 per cent of GDP in 2012. For that year, the indicator is calculated on net lending in 2009-2015, that is, on outcome data for only two years. If resource utilisation over each seven-year period is taken into account, the indicator reflects net lending that is more than 1 per cent above the target for all years. This is because the seven-year moving average for the GDP gap over the same period was strongly negative. However, in performing assessments with the support of the cycle-adjusted indicator, it must be borne in mind that the large negative GDP gap over the most recent recession probably will not be matched by equally large positive gaps in the years following the forecast period. For this reason, the value of the cycle-adjusted seven-year indicator should not be taken fully into account.

The conclusion is that the seven-year indicator and the cycle-adjusted seven-year indicator together suggest that net lending is well above the surplus target, particularly towards the end of the forecast period.

### *Structural balance*

At its lowest, the structural balance falls to 1.4 per cent of GDP for 2011, to then strengthen again in 2012-2014. This is a stronger trend than that forecast in the Budget Bill for 2011. Also this indicator suggests that net lending will exceed 1 per cent of GDP for 2011 and that it will continue to increase in the subsequent years. The structural balance amounts to 2.9 and 3.6 per cent of GDP for 2013 and 2014 respectively. However, the uncertainty in the assessment increases with the length of the time horizon.

### *Overall assessment*

General government net lending in 2001-2010 was in-line with the surplus target. This conclusion is based on the application of the ten-year retrospective indicator combined with an assessment of the historical economic situation. Consequently, the retrospective analysis does not indicate any major systematic errors in fiscal policy stance that could affect the achievement of the target in the future.

Net lending for 2011 is in line with the surplus target when the economic situation is taken into account. While both the seven-year indicator and the structural balance definitely exceed the surplus target

by a certain margin, the assessment is uncertain. There are risks that development will be stronger or weaker. Although the risk scenario is now considered balanced, it is important that there be good margins of safety in the public finances over the next few years. In 2007 and 2008, for example, all of the indicators employed suggested that net lending would exceed the targeted level. The public finances worsened rapidly in 2009 due to the global recession, resulting in actual and structural general government net lending being revised down substantially. This example shows that it is very important to take into account, just as the Government did at that time, the uncertainty in the assessment and the risk scenario when assessing compliance with the surplus target.

The Government believes that it is more responsible to subsequently correct excessive net lending by implementing urgent structural and welfare reforms than it is to be forced to make cuts in the event that the negative risks are realised.

## **5.5 Effects of fiscal policy on demand**

The change in the structural balance is generally used as a rough indicator of the effect of fiscal policy on demand. If, for example, the structural balance decreases, this would indicate that fiscal policy is having an expansive effect on demand, and vice versa in the case of an increase. This indicator comprises not only discretionary policies in the central government budget but also factors affecting the balance, such as changes in net lending by the local government sector and changes in general government net lending attributable to structural changes in the economy.

Table 8 shows the change in net lending distributed according to various factors, including the fiscal policy stance measured in terms of the change in the structural balance. A minor weakening in net lending by the local government sector will contribute to the structural balance declining by the equivalent of 0.5 per cent of GDP in 2011. In 2012, the structural balance is expected to improve at the same time as GDP grows at a good rate and the GDP gap diminishes.

**Table 8 Indicators for stimulating demand**

Annual change, per cent of GDP

|  | 2011        | 2012       | 2013       | 2014       |
|--|-------------|------------|------------|------------|
| <b>Net lending</b>                       | <b>0.6</b>  | <b>1.5</b> | <b>1.0</b> | <b>0.8</b> |
| Automatic stabilisers                    | 1.1         | 0.7        | 0.4        | 0.1        |
| Non-recurring effects                    | 0.0         | 0.0        | 0.0        | 0.0        |
| Extraordinary capital gains              | 0.0         | 0.0        | 0.0        | 0.0        |
| <b>Structural balance</b>                | <b>-0.5</b> | <b>0.8</b> | <b>0.6</b> | <b>0.7</b> |
| Discretionary fiscal policy <sup>1</sup> | 0.1         | 0.4        | 0.2        | 0.1        |
| Capital income, net                      | 0.0         | -0.1       | -0.1       | 0.0        |
| Local government finances                | -0.3        | 0.1        | 0.0        | 0.0        |
| Other                                    | -0.3        | 0.5        | 0.5        | 0.6        |
| GDP gap, change in percentage points     | 1.9         | 1.2        | 0.7        | 0.2        |

<sup>1</sup> Refers to expenditure and revenue changes between 2011 and 2014 in relation to reforms adopted, proposed and announced in previous years.

Sources: Statistics Sweden and own calculations.

## 5.6 Monitoring of the expenditure ceiling

### *High budgeting margin for current year*

The central government's multi-year expenditure ceiling serves to foster the credibility of fiscal policy and is an important budget policy commitment for the Riksdag and the Government. Spending has been kept within the expenditure ceiling every year since its introduction in 1997.

In principle all expenditure in the central government budget is subject to the expenditure ceiling. However, interest on central government debt is not included. On the other hand, expenditure on the old-age pension system is included alongside the central government budget. Ceiling-restricted expenditure consists of appropriations actually used, meaning that appropriation savings and appropriation credit actually used by central government agencies and authorities are included. The difference between the established expenditure ceiling and the ceiling-restricted expenditure represents the budgeting margin.

In 2010, the budgeting margin amounted to SEK 38 billion. For 2011, the margin is expected to rise to SEK 66 billion and for 2012 to SEK 74 billion if policy remains unchanged. Ceiling-restricted expenditure will increase relatively slowly in 2011, mainly due to the withdrawal of the temporary fiscal measures taken in connection with the financial crisis as the economy stabilises, but also due to the reduced impact of the crisis on the automatic stabilisers, such as labour market expenditure. Consequently, the budgeting margin will grow to relatively high levels. This was one of the reasons why the Government, in its 2011 Budget Bill, proposed expenditure ceilings for 2013 and 2014 that rise at a lower rate than previous years' ceilings. This means that the budgeting margin for these years will decrease somewhat.

**Table 9 Expenditure ceiling 2009–2014**

SEK billion, unless otherwise stated

|                                | 2009 | 2010  | 2011  | 2012  | 2013  | 2014  |
|--------------------------------|------|-------|-------|-------|-------|-------|
| Expenditure ceiling            | 989  | 1 024 | 1 063 | 1 083 | 1 093 | 1 103 |
| Per cent of GDP                | 32.0 | 31.0  | 30.7  | 29.9  | 28.7  | 27.7  |
| Ceiling-restricted expenditure | 965  | 986   | 997   | 1 009 | 1 025 | 1 045 |
| Per cent of GDP                | 31.2 | 29.9  | 28.8  | 27.9  | 26.9  | 26.3  |
| Budgeting margin               | 24   | 38    | 66    | 74    | 68    | 58    |
| Per cent of GDP                | 0.8  | 1.2   | 1.9   | 2.1   | 1.8   | 1.5   |

Note: The budgeting margin is the difference between an expenditure ceiling and the ceiling-restricted expenditure.

Sources: Statistics Sweden, National Financial Management Authority and own calculations.

## 5.7 Monitoring of the local government balanced budget requirement

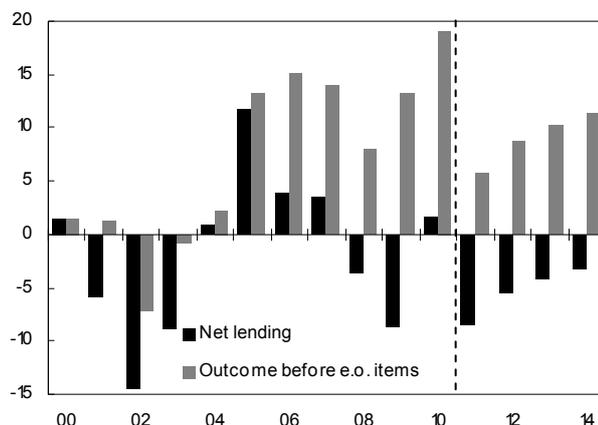
### *Positive result within the rule of thumb for good financial management*

The surplus target for general government finances, which also includes the local government sector, is expressed in terms of net lending as defined in the National Accounts. Differences occur between the reporting by the local government sector and the National Accounts that can amount to several billion kronor for an individual year (see Diagram 7). Local government accounting is based on the same theoretical starting points as those that apply to accounting in the business sector. If, for example, investment expenditure were to rise substantially between two years, this would have an immediate impact on net lending, while the outcome would be only marginally affected through increased depreciation of the capital stock.

The outcome, not net lending, therefore determines whether municipalities and county councils comply with the requirements of the Swedish Local Government Act for a balanced budget. This requirement represents a restriction stating the lowest acceptable short-term outcome. According to the Swedish Local Government Act, municipalities and County Councils shall maintain good financial management in their operations. Effective from 2005, municipalities and county councils shall determine, among other things, the financial targets that are of importance for good financial management. A negative outcome is to be reversed within three years, unless exceptional reasons exist. Municipalities and county councils' annual reports should state whether the balanced budget requirement has been met. They should also include an assessment of the degree to which the requirement for good financial management has been achieved.

## Diagram 7 Local government sector outcome before extraordinary items and net lending

SEK billion



Note: Outcome for 2000–2010, forecast for 2011–2014.  
Sources: Statistics Sweden and own calculations.

Since the introduction of the balanced budget requirement, the financial outcome in the local government sector has improved. Together, municipalities and county councils have since 2005 reported relatively strong outcomes before extraordinary items. In 2005–2008, the outcome before extraordinary items strengthened to a historically high level, mainly due to the strong growth in revenue as a consequence of the economic situation. There has consequently been scope to consolidate the outcome and raise local government consumption.

The strong recession drastically weakened financial conditions for municipalities and county councils in 2009. The sector nonetheless reported a strong outcome, which is likely consistent with the requirement for good financial management. The outcome for municipalities and county councils strengthened further in 2010. The local government sector reported a preliminary surplus of SEK 19 billion, corresponding to about 3 per cent of revenues from taxes and general central government contributions. The strong outcome for 2010 is largely explained by the temporary central government contributions and by tax revenues not declining to the expected extent. The surprisingly high tax revenues probably meant that total revenues for municipalities and county councils in 2010 (including central government contributions) were underestimated.

The outcome for 2011 is expected to be lower than that for 2010, due, among other factors, to slower expected growth in revenues. The weaker trend is mainly a consequence of the phasing out of the temporarily raised central government contributions. Although a stronger economic situation means that tax revenues will increase faster in 2011 than in 2010, this will not completely offset the decrease in central government contributions. The outcome for 2011 is expected to amount to SEK 6 billion, which is below the rule of thumb for good financial management.

## 5.8 Review by the Fiscal Policy Council

In 2007, the Government established a Fiscal Policy Council to increase transparency and insight into fiscal policy. The Fiscal Policy Council is charged with assessing target fulfilment and the focus of fiscal policy, as well as examining whether the grounds on which economic policies are based are clearly detailed in Spring Fiscal Policy Bills and Budget Bills. The Council shall also evaluate the quality of the Government's forecasts, data and calculation models, as well as working to promote public debate on economic policy.

In the spring of 2010, the Fiscal Policy Council submitted its third evaluation of target fulfilment in the Government's economic policy. Among other aspects, the report considered the fiscal policy stance in light of the global economic crisis. The Council warned that public finance issues in Sweden's vicinity entail considerable risks. Although the risk primarily pertains to countries in the euro zone, problems of increasing general government debt may, in the longer term, arise in countries such as the US, the UK and Japan, with serious consequences for the international economic trend.

Taking the extensive uncertainty regarding the long-term effects of the current crisis into account, the Fiscal Policy Council finds it difficult to assess the scope for reforms in Sweden. It therefore advised strongly against further commitments to permanent, unfinanced reforms in the run up to the election in the autumn of 2010. On the other hand, the Council took the view that Sweden's strong public finances allowed freedom of action in terms of stabilisation policy. In the Council's view, it is a political choice whether or not the Government wants to use this scope for continued temporary stimulus measures or to rapidly restore public finance buffers for the future.

In other respects, the Fiscal Policy Council took a positive view of the surplus target being embodied in the law. On the other hand, it was critical of the continued uncertainty regarding how the target is to be interpreted and followed up. The Council recommended that target fulfilment be assessed using only two indicators: one that is retrospective and one that is, in part, forward looking. When discrepancies of a certain size arise, the Council felt that the Government should explain its intended course of action in a special communication to the Riksdag.

## 6 Comparison with the updated convergence programme for 2009

In Table 10, the forecast in this year's update of Sweden's convergence programme is compared with the forecast in the updated programme for 2009.

The GDP growth forecast has been revised strongly upwards compared with the 2009 update of the convergence programme. GDP growth has been revised up by 4.9 percentage points for 2010 and by 1.5 percentage points for 2011. The revisions are largely due to the Swedish economy not having been impacted as severely by the international financial crisis as was feared in the autumn 2009 forecast.

The changed view of the future economic trend has also implied consequences for the forecasting of general government net lending. For 2010-2012, net lending has been revised up by close to 3 percentage points on average. In part, this is due to the recession primarily having impacted export-dependent businesses, thereby affecting key tax bases such as employment and household demand to a lesser extent than feared and, in part, to expenditure for certain transfer payment systems decreasing for structural reasons.

Forecast consolidated gross debt has been revised strongly downwards for all years; among other reasons, as a consequence of general government net lending having been revised up.

**Table 10 Comparison with the updated convergence programme for 2009**

Annual percentage volume change and per cent of GDP

|  | 2010 | 2011  | 2012  | 2013  | 2014 |
|--|------|-------|-------|-------|------|
| <b>GDP, percentage change in volume</b>                |      |       |       |       |      |
| Updated convergence programme for 2009                 | 0.6  | 3.1   | 3.8   | –     | –    |
| Updated convergence programme for 2011                 | 5.5  | 4.6   | 3.8   | 3.6   | 2.8  |
| Difference, percentage points                          | 4.9  | 1.5   | 0.0   | –     | –    |
| <b>General government net lending, per cent of GDP</b> |      |       |       |       |      |
| Updated convergence programme for 2009                 | -3.4 | -2.1  | -1.1  | –     | –    |
| Updated convergence programme for 2011                 | -0.3 | 0.3   | 1.8   | 2.8   | 3.7  |
| Difference, percentage points                          | 3.1  | 2.4   | 2.9   | –     | –    |
| of which, reforms from BB10 and up to and incl SFPB11  | -0.2 | -0.6  | -0.5  | -0.5  | -0.4 |
| After BB10 and up to and including SFPB10, SEK billion | -4.9 | -6.8  | -7.5  | -7.1  | -7.9 |
| SEK billion  | -1.6 | -12.8 | -11.4 | -10.7 | -9.7 |
| SFPB11, SEK billion                                    |      | -0.3  | 0.0   | 0.0   | 0.0  |
| <b>Consolidated gross debt, per cent of GDP</b>        |      |       |       |       |      |
| Updated convergence programme for 2009                 | 45.5 | 45.6  | 45.2  | –     | –    |
| Updated convergence programme for 2011                 | 39.8 | 36.8  | 33.4  | 28.8  | 23.6 |
| Difference, percentage points                          | -5.7 | -8.8  | -11.8 | –     | –    |

Sources: Statistics Sweden and own calculations.

## 7 Alternative scenarios

There is a substantial degree of uncertainty regarding future economic trends and long-term sustainable economic growth. All in all, the risk scenario is considered to be balanced; that is, the risks of a weaker or stronger trend are judged to be about equal.

It is possible that the recovery will progress more rapidly in 2011 and 2012 than forecast in the main scenario. Forward-looking indicators for both households and companies are highly positive and if these are borne out, the recovery may be stronger than foreseen in the main scenario. In such a scenario, there is a risk that the utilisation of resources in the labour market will be strained over the next few years, which would hold back the increase in production. Such a scenario also implies risks associated with household borrowing. The analyses carried out by the government and, among others, the Riksbank and Swedish Financial Supervisory Authority show that the risks to financial stability from higher interest rates at the current debt ratio are minor (see Appendix D). However, problems could arise if the debt ratio were to continue rising as a consequence of a strong asset price trend. If credit expansion reaches unsustainable levels in the next few years, it risks causing an abrupt credit contraction and falling housing prices at a later stage, and there is a risk that this would worsen the next recession.

It is also possible that the economic recovery in Sweden and abroad will be weakened by unrest in North Africa and the Middle East leading to falling production and strongly rising oil prices. The earthquake, tsunami and nuclear incidents in Japan may also weaken the global economic recovery. If the problems in Japan result in decreased access to credit and rising risk premiums, opportunities for borrowing could become limited and more expensive, which would, in turn weaken the recovery.

There are also risks associated with European banks' financing costs. The liquidity situation among the European banks has eased compared with 2009 and 2010, although the situation has yet to normalise. European banks and companies still face financing risks associated with an extensive need for financing in the near future, particularly in the countries with large deficits in their central government finances.

Although the risk has decreased that the recovery will be impeded by continued market unease associated with uncertainty surrounding central government finances in certain European countries, underlying problems involving poor public finances remain in many countries. This could lead to renewed unease in the global financial markets and to major financing problems for many countries. The high level of public borrowing in many countries also means that the scope for fiscal stimuli

risks being very limited in the next recession. Combined, these factors could entail the next recession being deeper than normal.

Furthermore there prevails extensive uncertainty regarding the effect the financial crisis has had on the long-term sustainable level of production. The main scenario assumes a relatively large proportion of the decline in productivity in connection with the financial crisis is permanent. If the decline in productivity is, to a larger extent, due to a temporary disruption, the sustained GDP level will be higher than that predicted in the main scenario.

#### *Alternative scenario 1: Faster recovery and unsustainable borrowing*

This alternative scenario assumes that the recovery will, in the short term, be faster and stronger than in the main scenario while, at the same time, household borrowing increases substantially. Several indicators suggest that both demand and the labour market could develop more strongly than assumed in the main scenario. For example, forward-looking indicators for both households and companies are highly positive and if these expectations are fully realised, GDP growth and the labour market trend will be stronger. The scenario assumes that demand in Sweden and abroad will be stronger in 2011 and 2012 than in the main scenario.

Stronger domestic demand, combined with higher demand for Swedish exports would entail higher GDP growth in 2011 and 2012. For 2011, GDP growth is 1 percentage point higher than in the main scenario. This higher level of demand entails a stronger trend in the labour market in 2011 and 2012 according to this scenario. The growth in employment will be higher and unemployment will be lower than forecast in the main scenario. For 2012, unemployment would be 5.8 per cent, compared with 6.6 per cent in the main scenario.

A stronger labour market and higher consumption lead to higher tax revenues and lower expenditure, which combined improve the public finances over the next few years compared with the assessment in the main scenario. The stronger GDP growth and employment trend mean that resource utilisation will rise rapidly, meaning that resource utilisation, both in the labour market and throughout the economy, will be strained in 2012. The strained level of resource utilisation in the labour market will lead to increased wage and inflation pressure, causing the Riksbank to raise its repo rate considerably faster than in the main scenario.

At the same time, the strong recovery will contribute to both housing prices and household borrowing in relation to disposable income rising to an unsustainable extent. Strongly rising interest rates combined with increased employment will cause household consumption to weaken in 2012 and housing prices to start falling. Falling housing prices entail declining household wealth, causing consumption to decline further. Strongly increased borrowing would thus contribute to a greater recession than would otherwise have been the case.

GDP growth weakens notably in 2013 and 2014 and the GDP gap at the end of the forecast period is negative. Weaker production means that the increase in employment will be held back and that unemployment for 2014 is 0.4 percentage points higher than in the main scenario. Weaker demand combined with higher unemployment leads to worsened public finances in 2013 and 2014.

In the longer term, however, the economy will recover and unemployment will fall to about 5 per cent in 2016/2017.

### *Alternative scenario 2: Weaker international trend*

The main scenario foresees a gradual recovery in the global economy over the next few years. There is a risk, however, that the economic recovery abroad, and thus also in Sweden, will be weaker and more drawn out due to the unrest in North Africa and the Middle East and as a consequence of the situation in Japan. This alternative scenario assumes that the global recovery will be weaker than in the main scenario and that oil prices will be higher. In the event that the unrest in North Africa leads to declining production and, consequently, strongly rising oil prices, this will hold back the global recovery. The situation in Japan could slow the recovery further if the nuclear incident leads to global nuclear power production decreasing, resulting in rising energy prices.

The Swedish economy is affected in several ways by the weaker international trend and higher energy prices. In the first place, demand for Swedish exports would develop more weakly than in the main scenario, which would also hold back investment. In the second place, the negative signals from abroad would make households more pessimistic, which, combined with higher energy prices, would help weaken household consumption.

All in all, this means that GDP will grow more slowly this year than in the main scenario. Lower demand will contribute to growth in employment being somewhat lower and unemployment being somewhat higher than foreseen in the main scenario. The weaker recovery entails resource utilisation being lower for 2011 and 2012 than in the main scenario. While lower resource utilisation means that inflation pressure will be mitigated, this will be offset by rising oil prices. However, the Riksbank will raise its repo rate at a somewhat slower pace as a result of the lower level of resource utilisation.

In the longer term, a gradual international recovery and continued expansive monetary policy will result in exports, investment and household consumption increasing faster in 2013 and 2014 than they will according to the main scenario. Employment will grow more strongly than in the main scenario in 2013 and 2014, and unemployment will fall to 5.3 per cent in 2014.

As a consequence of stronger GDP growth in 2013 compared with the main scenario, resource utilisation will rise and the GDP gap will converge over the year. As in the main scenario, resource utilisation will therefore be normal over the period 2013-2014. The long-term GDP

level is, however, somewhat lower than in the main scenario, due to higher energy prices leading to falling potential production capacity among companies. Above all, high energy prices will lead to falling production capacity in the energy-intensive basic industrial sectors.

The scenario entails marginally lower net lending compared with the main scenario. In the short term, it is above all weaker demand combined with higher unemployment that will contribute to somewhat weakened public finances. In 2014, tax revenues will decrease somewhat, primarily as a consequence of lower VAT revenues.

*Summary of the economic trend according to the main scenario and the two alternative scenarios*

**Table 11 Key data in SFPB11 and alternative scenarios**

Annual percentage change, unless otherwise stated

|   | 2011    |        |        | 2012    |        |        | 2013    |        |        | 2014    |        |        |
|---|---------|--------|--------|---------|--------|--------|---------|--------|--------|---------|--------|--------|
|   | SFPB 11 | Alt. 1 | Alt. 2 | SFPB 11 | Alt. 1 | Alt. 2 | SFPB 11 | Alt. 1 | Alt. 2 | SFPB 11 | Alt. 1 | Alt. 2 |
| GDP fixed prices                            | 4.6     | 5.6    | 4.0    | 3.8     | 4.4    | 3.8    | 3.6     | 1.5    | 3.8    | 2.8     | 1.8    | 2.9    |
| GDP gap <sup>1</sup>                        | -1.9    | -0.8   | -2.4   | -0.7    | 1.0    | -1.1   | -0.1    | -0.2   | -0.2   | 0.1     | -1.0   | 0.2    |
| Hours worked                                | 1.9     | 2.6    | 1.5    | 1.1     | 1.7    | 1.0    | 1.8     | 0.9    | 2.0    | 1.0     | 0.3    | 1.2    |
| Employment <sup>2</sup>                     | 2.5     | 3.0    | 2.2    | 1.4     | 1.8    | 1.2    | 1.3     | 0.6    | 1.4    | 1.1     | 0.4    | 1.3    |
| Unemployment <sup>3</sup>                   | 7.3     | 6.8    | 7.6    | 6.6     | 5.8    | 6.9    | 5.8     | 5.8    | 6.1    | 5.2     | 5.6    | 5.3    |
| Hourly wages <sup>4</sup>                   | 2.6     | 2.6    | 2.6    | 3.2     | 3.9    | 2.7    | 3.4     | 3.7    | 3.6    | 3.5     | 2.8    | 3.7    |
| CPI inflation <sup>5</sup>                  | 2.5     | 2.5    | 2.5    | 2.0     | 2.6    | 2.1    | 2.8     | 3.4    | 2.3    | 2.7     | 2.1    | 3.0    |
| Repo rate <sup>6</sup>                      | 2.25    | 2.75   | 1.75   | 3.25    | 4.25   | 3.00   | 3.75    | 3.75   | 3.50   | 3.75    | 3.25   | 3.75   |
| Net lending, gen. govt. sector <sup>7</sup> | 0.3     | 0.6    | 0.1    | 1.8     | 2.2    | 1.6    | 2.8     | 2.7    | 2.6    | 3.6     | 3.3    | 3.6    |

<sup>1</sup> The difference between actual and potential GDP as a percentage of potential GDP.

<sup>2</sup> In age group 15–74 years.

<sup>3</sup> Per cent of the labour force.

<sup>4</sup> According to economic wage statistics.

<sup>5</sup> Annual average.

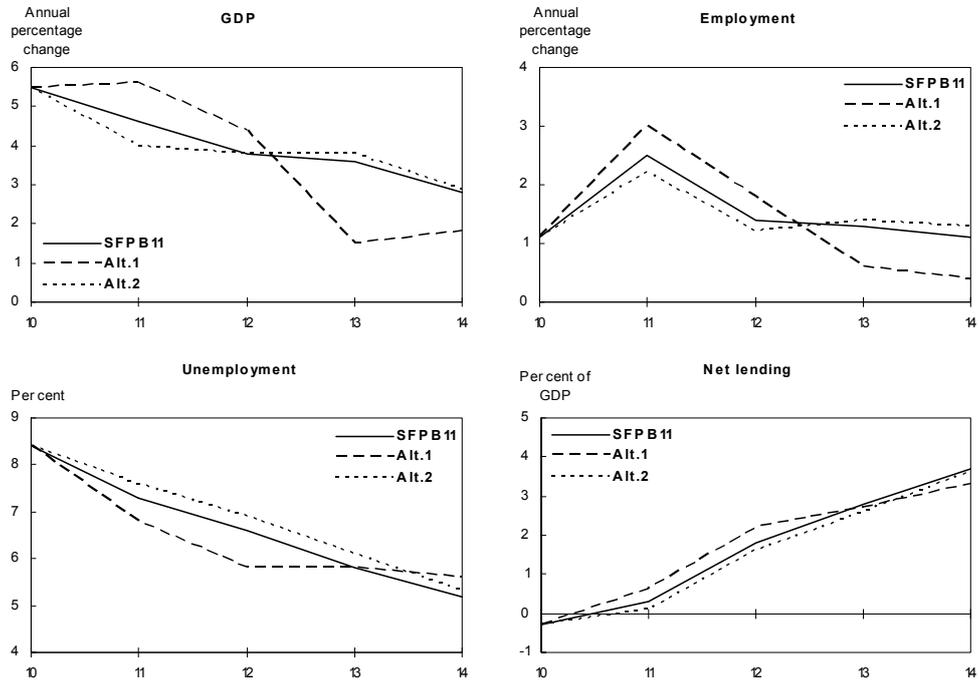
<sup>6</sup> Closing rate.

<sup>7</sup> Per cent of GDP.

Source: Own calculations.

## Diagram 8 Development of GDP, employment, unemployment and net lending in SFPB11 and alternative scenarios 2010–2014

Annual percentage change and per cent of GDP



Source: Own calculations.

## 8 The government's reform policy and quality in public finances

The Government's objective is to take Sweden towards full employment, thereby reducing social alienation. Employment represents the foundation of common welfare, giving people the opportunity to earn their own living, participate in workplace interaction and establish structure in their daily lives. The foremost cause of social disparity is that people lack employment. The demographic trend, with an increasing proportion of elderly people in the population, also underscores the importance of policies that promote employment.

Sound public finances are one of the cornerstones in efforts to achieve full employment and increased prosperity. Responsible policies, fostering good public finances have secured a solid foundation for Sweden to build on and given it the capacity to manage the economic and financial crisis, while maintaining the preparedness required to confront an even deeper and sustained recession. The Government has implemented rigorous stabilisation policy measures and combated unemployment without incurring major deficits in the public finances. During the recession, the Government has also prioritised jobs through continued structural measures that have strengthened the focus on employment and enhanced the functionality of the labour market. By returning to, and maintaining, a surplus in the public finances in line with the surplus target, the conditions for publicly financed welfare are safeguarded. This is particularly important for well functioning childcare, schools and health care, as well as for those who depend on functioning social security systems in the event of illness or unemployment.

An important element of fiscal policy is to safeguard financial stability and a properly functioning credit channel, both to companies and households. A stable financial system is of key importance for the economy. One lesson that can be drawn from the economic crisis is that preventive measures are needed to mitigate the risks of instability in the financial system. To secure financial stability, measures to counteract risks associated with household borrowing and the banks' risk-taking and foreign exposures must be examined. Initially, the Government intends to review possibilities to increase the banks' equity requirements, thereby making them more resistant to financial unease. In addition, the Government has proposed an extension of the current transitional rules for the Swedish banks' capital coverage with the purpose of keeping the requirements at a level at least commensurate with those currently applied.

## 8.1 Revenue reforms

Between 2003 and 2010, the tax ratio, i.e. total tax revenue as a percentage of GDP, declined by 2.1 percentage points (see Table 12). Over the coming years, up until 2014, the tax ratio is expected to decline further (by a total of 0.3 percentage points).

Tax on labour in particular has declined over the period 2003–2010. The in-work tax credit and lowered social security fees account for most of these tax cuts. Major changes in capital taxation in recent years include the lowering of corporation tax, the abolition of wealth tax and the reduction in tax on property. The contribution by consumption and investment to the balance of resources has increased, contributing to VAT revenues also increasing as a percentage of GDP. Revenue from excise duties, including tax on energy and carbon dioxide, declines despite increased taxes. This decline is explained by more efficient residential heating, the switch from electricity and oil to geothermal heat and district heating, as well as a newer vehicle stock with more energy-efficient engines.

If the economic situation permits, and on the condition that critical reforms in the areas of welfare and education can be assured, the Government intends to implement key elements of the tax cuts announced as reform ambitions in the 2011 Budget Bill.

**Table 12 Tax revenue**

Per cent of GDP

|                               | 2003        | 2004        | 2005        | 2006        | 2007        | 2008        | 2009        | 2010        | 2011        | 2012        | 2013        | 2014        | Change<br>2003-2014 |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------|
| Tax on labour                 | 30.8        | 30.3        | 30.0        | 29.1        | 27.9        | 28.4        | 28.1        | 26.5        | 26.0        | 26.1        | 26.2        | 26.3        | -4.5                |
| Direct taxes                  | 17.7        | 17.5        | 17.2        | 16.6        | 15.5        | 15.5        | 15.4        | 14.4        | 14.0        | 14.1        | 14.1        | 14.1        | -3.6                |
| Indirect taxes                | 13.1        | 12.8        | 12.7        | 12.5        | 12.5        | 12.8        | 12.7        | 12.1        | 12.0        | 12.1        | 12.1        | 12.2        | -0.9                |
| Tax on capital                | 4.2         | 5.1         | 6.1         | 6.5         | 6.7         | 5.1         | 5.2         | 5.5         | 5.7         | 5.8         | 5.7         | 5.7         | 1.5                 |
| Tax on capital,<br>households | 0.3         | 0.4         | 0.8         | 1.3         | 1.6         | 0.8         | 0.8         | 0.9         | 1.0         | 0.9         | 0.8         | 0.8         | 0.5                 |
| Tax on company<br>profits     | 1.9         | 2.7         | 3.3         | 3.4         | 3.3         | 2.6         | 2.8         | 3.1         | 3.3         | 3.3         | 3.3         | 3.2         | 1.3                 |
| Tax on consumption            | 12.9        | 12.7        | 12.9        | 12.7        | 12.8        | 13.1        | 13.7        | 13.6        | 13.4        | 13.4        | 13.3        | 13.3        | 0.4                 |
| VAT                           | 8.9         | 8.8         | 9.0         | 9.0         | 9.1         | 9.4         | 9.8         | 9.8         | 9.8         | 9.8         | 9.8         | 9.8         | 0.9                 |
| Arrears and<br>other taxes    | -0.1        | -0.1        | 0.0         | -0.1        | 0.0         | -0.1        | -0.1        | 0.1         | 0.1         | 0.1         | 0.1         | 0.1         | 0.2                 |
| <b>Total tax revenue</b>      | <b>47.8</b> | <b>48.0</b> | <b>48.9</b> | <b>48.3</b> | <b>47.3</b> | <b>46.4</b> | <b>46.8</b> | <b>45.7</b> | <b>45.1</b> | <b>45.4</b> | <b>45.3</b> | <b>45.4</b> | <b>-2.4</b>         |

Sources: Statistics Sweden and own calculations.

## 8.2 Expenditure reforms

Future reforms will focus on further measures to get more people into jobs and to strengthen Sweden's long-term conditions for growth. Social alienation is to decrease. All who can and want to work shall be given the opportunity to participate in the labour market. Prior to the 2012 Budget

Bill, policy will be focused on assuming responsibility for jobs by ensuring secure growth to get more people into work without overheating the economy, building a robust financial system and strengthening the quality of the education system and welfare.

### 8.3 Quality in public finances

At the EU level, principles have been developed for the compilation of uniform statistics on the allocation of public finances by each member state. Uniform statistics facilitate comparisons of different member states' public expenditure and of their development over time. In order to evaluate whether a change in the composition of general government expenditure has affected long-term growth, further information is required and at a level of greater detail. The allocation of general government expenditure between different purposes and the change in allocation over time do, however, indicate how different types of expenditure and purposes have been prioritised and provide an indication of policy stance. Tables 13 and 14 provide details of expenditure by purpose in accordance with the COFOG classifications.

**Table 13 General government expenditure by purpose, per cent of GDP**

Per cent of GDP

|   | 1999        | 2000        | 2001        | 2002        | 2003        | 2004        | 2005        | 2006        | 2007        | 2008        | 2009        | Change<br>1999-2009 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------|
| General public administration             | 9.4         | 9.5         | 8.2         | 8.7         | 7.8         | 7.5         | 7.6         | 7.7         | 7.5         | 7.6         | 7.5         | -1.9                |
| Interest                                  | 4.0         | 3.5         | 2.8         | 3.1         | 2.3         | 1.8         | 1.9         | 1.8         | 1.8         | 1.7         | 1.3         | -2.8                |
| Other                                     | 5.4         | 6.0         | 5.4         | 5.6         | 5.5         | 5.6         | 5.7         | 5.9         | 5.7         | 5.9         | 6.2         | 0.8                 |
| Defence                                   | 2.4         | 2.3         | 2.2         | 2.1         | 2.0         | 1.9         | 1.7         | 1.7         | 1.5         | 1.5         | 1.5         | -0.9                |
| Social responsibility and judicial system | 1.4         | 1.3         | 1.3         | 1.4         | 1.4         | 1.3         | 1.3         | 1.3         | 1.3         | 1.3         | 1.4         | 0.1                 |
| Economic issues and economic policy       | 4.3         | 3.7         | 3.9         | 4.1         | 4.2         | 4.1         | 4.3         | 4.1         | 4.0         | 4.2         | 4.7         | 0.4                 |
| Environmental protection                  | 0.2         | 0.3         | 0.3         | 0.3         | 0.3         | 0.3         | 0.4         | 0.4         | 0.4         | 0.3         | 0.4         | 0.2                 |
| Provision of housing and social planning  | 1.3         | 0.9         | 1.0         | 0.9         | 0.9         | 0.8         | 0.8         | 0.7         | 0.7         | 0.8         | 0.8         | -0.5                |
| Health care                               | 6.2         | 6.1         | 6.5         | 6.8         | 7.0         | 6.7         | 6.7         | 6.6         | 6.6         | 6.9         | 7.4         | 1.2                 |
| Leisure, culture and religion             | 1.8         | 1.1         | 1.1         | 1.1         | 1.1         | 1.0         | 1.0         | 1.1         | 1.1         | 1.1         | 1.2         | -0.6                |
| Education                                 | 7.4         | 6.7         | 7.1         | 7.3         | 7.2         | 7.1         | 7.0         | 6.9         | 6.7         | 6.8         | 7.3         | -0.1                |
| Social security                           | 23.8        | 23.2        | 22.9        | 23.0        | 23.9        | 23.5        | 23.0        | 22.2        | 21.1        | 21.1        | 23.0        | -0.8                |
| <b>Total expenditure</b>                  | <b>58.1</b> | <b>55.1</b> | <b>54.5</b> | <b>55.6</b> | <b>55.7</b> | <b>54.2</b> | <b>53.9</b> | <b>52.7</b> | <b>51.0</b> | <b>51.7</b> | <b>55.2</b> | <b>-3.0</b>         |
| Excluding interest                        | 54.1        | 51.6        | 51.8        | 52.5        | 53.4        | 52.3        | 52.0        | 51.0        | 49.2        | 50.0        | 53.9        | -0.2                |

Sources: Statistics Sweden (preliminary outcome) and own calculations.

**Table 14 General government expenditure by purpose, per cent of total expenditure**

Per cent of total expenditure

|   | 1999         | 2000         | 2001         | 2002         | 2003         | 2004         | 2005         | 2006         | 2007         | 2008         | 2009         | Change<br>1999-2009 |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------------|
| General public administration             | 16.2         | 17.2         | 15.1         | 15.6         | 14.0         | 13.8         | 14.1         | 14.5         | 14.8         | 14.8         | 13.6         | -2.6                |
| Interest                                  | 6.9          | 6.4          | 5.1          | 5.6          | 4.1          | 3.4          | 3.5          | 3.3          | 3.5          | 3.3          | 2.3          | -4.6                |
| Other                                     | 9.3          | 10.9         | 10.0         | 10.0         | 9.9          | 10.3         | 10.6         | 11.2         | 11.3         | 11.5         | 11.3         | 2.0                 |
| Defence                                   | 4.1          | 4.2          | 4.0          | 3.7          | 3.6          | 3.5          | 3.2          | 3.2          | 3.0          | 2.8          | 2.7          | -1.4                |
| Social responsibility and judicial system | 2.3          | 2.3          | 2.5          | 2.5          | 2.5          | 2.4          | 2.4          | 2.5          | 2.6          | 2.6          | 2.6          | 0.3                 |
| Economic issues and economic policy       | 7.4          | 6.7          | 7.1          | 7.4          | 7.5          | 7.5          | 7.9          | 7.7          | 7.9          | 8.2          | 8.5          | 1.1                 |
| Environmental protection                  | 0.3          | 0.5          | 0.5          | 0.6          | 0.6          | 0.6          | 0.7          | 0.7          | 0.7          | 0.7          | 0.6          | 0.4                 |
| Provision of housing and social planning  | 2.3          | 1.7          | 1.8          | 1.6          | 1.6          | 1.5          | 1.6          | 1.4          | 1.4          | 1.5          | 1.4          | -0.8                |
| Health care                               | 10.7         | 11.0         | 11.9         | 12.2         | 12.5         | 12.4         | 12.5         | 12.6         | 13.0         | 13.3         | 13.5         | 2.8                 |
| Leisure, culture and religion             | 3.0          | 1.9          | 2.0          | 1.9          | 1.9          | 1.9          | 1.9          | 2.1          | 2.1          | 2.2          | 2.2          | -0.8                |
| Education                                 | 12.8         | 12.2         | 13.1         | 13.1         | 13.0         | 13.0         | 13.0         | 13.1         | 13.1         | 13.2         | 13.2         | 0.4                 |
| Social security                           | 40.9         | 42.1         | 42.1         | 41.4         | 42.8         | 43.4         | 42.6         | 42.2         | 41.4         | 40.7         | 41.6         | 0.7                 |
| <b>Total expenditure</b>                  | <b>100.0</b> | <b>0.0</b>          |
| Excluding interest                        | 93.1         | 93.6         | 94.9         | 94.4         | 95.9         | 96.6         | 96.5         | 96.7         | 96.5         | 96.7         | 97.7         | 4.6                 |

Sources: Statistics Sweden (preliminary outcome) and own calculations.

Quantified as a percentage of GDP, overall expenditure declined over the period 1999-2009, even though it rose notably in 2009 in the wake of the financial crisis. Explanations for the decrease is, inter alia, declining interest expenditures and strong GDP growth during the period. A high level of GDP growth means that expenditure following the general price trend gradually falls as a percentage of GDP.

Expenditure on social security in Sweden accounts for more than 20 per cent of GDP and more than 40 per cent of total general government expenditure. The proportion fell from the middle of the first decade of the new millennium, although it rose again in 2009 in connection with the financial crisis and the subsequent recession. Expenditure on health care also accounts for a major share of general government expenditure. Having amounted to slightly less than 11 per cent in 1999, the proportion rose over a period of several years and in 2009 amounted to more than 13 per cent. Interest expenditure has fallen considerably, which is mainly the result of the sharp fall in general government consolidated gross debt as a percentage of GDP.

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

Alongside the tax system, for example, the functioning of the labour market largely depends on the design of the unemployment and health insurance systems. Since it took office, the Government has implemen-

ted changes in these areas, in order for these insurance systems to regain their intended function when introduced.

To achieve a high level of prosperity, it is essential that it pays to take employment and, for those already in employment, that it pays to work harder. Through the in-work tax credit in particular, the Government has made working more profitable. The in-work tax credit decreases alienation, increases employment in a sustained manner, and makes enterprise more attractive. In total, the Government's structural reforms are expected to increase employment by 215 000 people in the long term (see Table 15).

**Table 15 Effects of the Government's policy in the long term**

Number of people, unless otherwise stated

|                                       | Employed <sup>1</sup> | Unemployed <sup>2</sup> | Annual work units <sup>3</sup> | GDP <sup>4</sup> |
|---------------------------------------|-----------------------|-------------------------|--------------------------------|------------------|
| In-work tax credit                    | 105 000               | -0.6                    | 120 000                        | 2.2              |
| Unemployment insurance                | 45 000                | -0.7                    | 40 000                         | 0.7              |
| Sickness insurance                    | 20 000                | 0.4                     | 20 000                         | 0.4              |
| RMI/Household services tax credit     | 20 000                | -0.2                    | 20 000                         | 0.4              |
| Reduced social security contributions | 10 000                | 0.0                     | 10 000                         | 0.2              |
| Labour market policy                  | 15 000                | -0.2                    | 10 000                         | 0.2              |
| Income threshold                      | 0                     | 0.0                     | 15 000                         | 0.3              |
| <b>Total structural reforms</b>       | <b>215 000</b>        | <b>-1.4</b>             | <b>235 000</b>                 | <b>4.3</b>       |

<sup>1</sup> Number of people in age group 15–74 years.

<sup>2</sup> Change in percentage points.

<sup>3</sup> Number of hours worked converted to annual work units. One annual work unit is equivalent to 1 800 hours.

<sup>4</sup> Percentage change at GDP level.

Note: Calculations are based on full effect being achieved in 2020.

Source: Own calculations.

## 9 Long-term sustainability of fiscal policy

The public finances will probably be subject to considerable pressure due to increasing life expectancy leading to an increased proportion of elderly people in the population. This entails an increasing burden of support for those in paid employment. The question is whether it will continue to be possible to finance current welfare commitments with public funds in the future or if current fiscal policy is unsustainable in the long term. This section analyses the long-term sustainability of fiscal policy and is supplemented with an assessment of how various assumptions about the functioning of the economy affect sustainability.

The challenge that an ageing population poses for the public finances could potentially grow even greater due to other factors than demography.

The demand for welfare services could for example increase more than demographic conditions would imply. Both economic growth and technological innovation can cause this. Examples of welfare services that are consumed on an individual basis are education, health care, childcare and care of the elderly and disabled. Over the past 30 years, this portion of welfare services has increased by an average 0.5-1.0 per cent more than demographic conditions would imply. Increasing demand for additional welfare services could drive up expenditure and lead to sustainability being weakened.

Another example is that rising prosperity could lead to increased demand for leisure. Historically, a portion of growth has resulted in longer vacations and shorter working days rather than increased consumption. If this trend continues, the number of hours worked will decrease, reducing the tax base and weakening sustainability.

Fiscal policy can be said to be sustainable in the long term when expenditure and revenue are commensurate over time and the trends in net lending and general government net debt are kept within reasonable limits. Over time, the tax revenues and other revenues generated under current regulations should be sufficient to finance the expenditure necessitated by the current welfare system. This reasoning can be formalised as an intertemporal budget constraint for the public finances. If the constraint is upheld, the general government net debt ratio will stabilise in the long term. If it is not upheld, debt will not be stabilised.

According to the EU Stability and Growth Pact, the gross debt may not exceed 60 per cent of GDP. Nor, according to the Pact, may the budget deficit in the general government sector exceed 3 per cent of GDP during any given period. For this reason, net lending must also be included in the analysis. Primary net lending also shows clearly when any imbalance arises and is therefore an important complement to the

assessment. An imbalance occurring in the near term should be considered more alarming than one that does not appear until further into the future.

To assess whether fiscal policies are sustainable in the long term, a number of projections are made of the general government sector's revenues and expenditure over a very long period, given a number of calculation assumptions. A total appraisal of sustainability is then made based on these projections.

The degree of uncertainty in projections of this kind is obviously considerable and the results should therefore be interpreted with great caution. If, for example, the public finances are shown to be sustainable with a good margin, this should not automatically be interpreted to mean that there is immediate scope for reform. If, on the contrary, the finances are shown to be unsustainable in the long term, this should be taken as indicative of imbalances that require further examination.

## **9.1 What is sustainability and how can it be measured?**

To assess whether the public finances are sustainable in the long term, a number of indicators have been developed. They offer different advantages and disadvantages and thus complement one another.

The S2 and S1 sustainability indicators developed by the European Commission are based on the general government sector's intertemporal budget constraint. This states that the current value of future primary revenues, that is, all revenues other than capital revenues, should be commensurate with the current value of future primary expenditure, that is, all expenditure except interest on debt and net debt at the outset. For the public finances to be considered sustainable in the long term, it is necessary that the budget constraint be upheld.

S2, which is the most common sustainability indicator, builds on the intertemporal budget constraint across an infinite time horizon. It determines the extent to which, if implemented permanently and immediately, the budget must be reinforced or weakened in order for the constraint to be upheld. S2 is stated as a percentage of GDP, with a positive value indicating the need for budgetary strengthening and a negative value indicating that the public finances could be weakened without threatening long-term sustainability.

Unlike S2, S1 is defined over a limited period. A further difference is that it includes a condition on the scope of debt at the end of the period. The closing period and the level of debt can be selected depending on the framing of the question. The indicator determines the extent to which, if implemented permanently and immediately, the budget must be reinforced or weakened in order for the debt ratio to reach a specific level in a particular year. The European Commission has chosen to define S1 in terms of a concrete target: gross debt, defined as the Maastricht debt, should amount to at most 60 per cent of GDP for 2060. S1 is defined in the same way in this update. If, for example, one sought

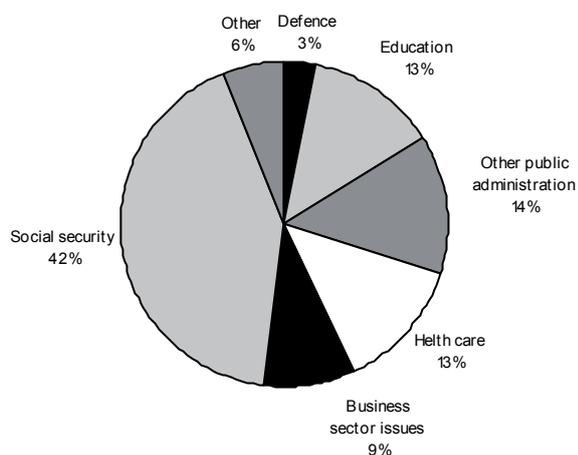
to analyse what is necessary in order not to transfer assets between generations, the constraint can be set such that net debt is of the same level as in 2010 a generation later. The S1 indicator offers the advantage that it is not calculated on the basis of what may be assumed to happen far into the future.

## 9.2 Sweden's welfare undertaking

A basic characteristic of the Swedish welfare model is that it includes an extensive system of redistribution. It includes welfare services such as education and health care, as well as individual rights such as pensions and social insurance systems with income-related remunerations (see Diagram 9). It is all financed through taxes and charges. The scope is extensive compared with other countries.<sup>7</sup>

**Diagram 9 General government expenditure by purpose, 2009**

Per cent



Source: Statistics Sweden.

In 2010, general government expenditure amounted to SEK 1 686 billion, equivalent to about 51.1 per cent of GDP. Of this amount, transfer payments account for 19.6 percentage points, of which 16.2 percentage points were to households, with pensions accounting for 8.6 percentage points. General government consumption accounted for 27.2 percentage points.

Diagram 9 details how general government expenditure was distributed in terms of various purposes in 2009. The greatest share of expenditure (42 per cent) was used for social security. The concept of social security encompasses areas including care of the elderly and disabled, old-age pensions, sickness and activity compensation, and unemployment benefit. A considerable share was also used for

<sup>7</sup> In 2009, expenditure corresponded to 50.8 per cent of GDP among the EU 27, while in Sweden it amounted to 54.9 per cent. General government consumption as percentage of GDP corresponded to 22.5 per cent in the EU 27, while it was 27.8 per cent in Sweden.

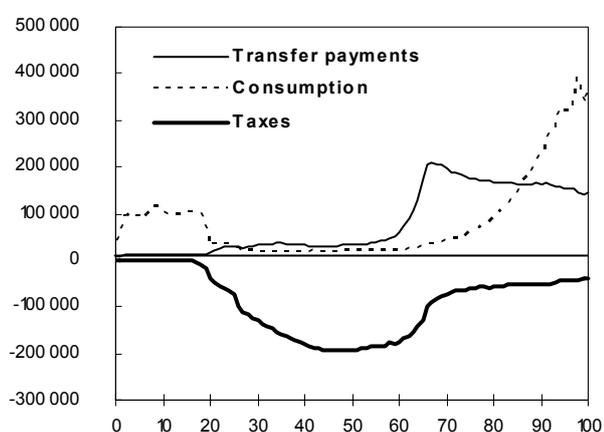
education, health care and general public administration, which accounted for approximately 13 per cent of general government expenditure.

The public undertaking entails a large proportion of revenue being redistributed among households. This redistribution occurs between groups with varying income, health status and capacity for work. However, the largest portion of this redistribution by far (nearly three quarters) takes place over the life-cycle of the individual, between different age groups. Over his or her lifetime, an individual normally pays in funds to the general government sector during certain periods, to then receive funds in return during other periods. Children, young people and, above all, the elderly are net recipients of public welfare services and transfer payments, while those in paid employment are net contributors to the general government sector. It is normally more effective to redistribute resources between households by means of welfare services than by means of transfer payments, since raised levels of remuneration and new transfer payment systems may have the effect of weakening the incentives to work and thus also having a detrimental effect on tax revenues.

Diagram 10 shows how the taxes paid, transfer payments received and consumption of public services vary over the life-cycle of the individual. Diagram 11 shows the net balance at various ages.

**Diagram 10 Taxes paid and transfer payments and public services received on average at various ages, 2008**

SEK

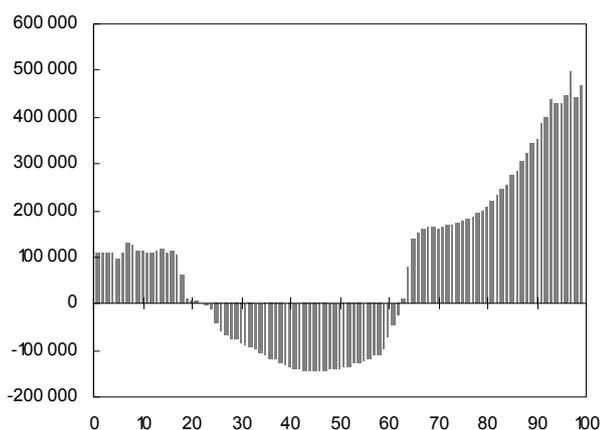


Note: Taxes paid to the general government sector are stated as negative values, while transfer payments and public services received are indicated as positive values.

Sources: Statistics Sweden and own calculations.

**Diagram 11 Net public expenditure by age, 2008**

SEK



Sources: Statistics Sweden and own calculations.

During the first 20 years of life, large amounts of childcare and education are consumed. During this period, the average individual is a net recipient from the general government sector. From about the age of 20, participation in the labour force increases and thus also tax payments, while average education costs decrease. At that time, the average individual becomes a net contributor to the general government sector. The size of tax payments increase with age and peak at about age 45. Between the ages of 55 and 65, payments of sickness and activity compensation and old-age pension increase. From the age of 75, consumption of health care and care of the elderly also increases substantially. The average individual becomes a net recipient at about the age of 63.

Age distribution in general government expenditure and revenues, combined with rising average life expectancy is expected to result in pressure being exerted on the public finances.

### **9.3 The demographic trend and the labour market**

To analyse future challenges for fiscal policy, two types of calculations are necessary. In the first place, a description is needed of the demographic trend and how the characteristics of the employable population change over time. In the second place, calculations are needed of the consequences for general government revenue and expenditure. Naturally, both types of calculations rest on a number of different assumptions. The significance of different assumptions for the assessment of the long-term sustainability of the public finances is described in the summary of all scenarios (see Chapter 9.6).

#### *The proportion of elderly people in the population is increasing*

The composition of the population is changing continuously. Two changes have been predominant in recent years. In the first place, a major proportion of the large group of people born in the 1940s has reached

pensionable age and left the labour force. The remainder of this large group will leave the labour force within the next few years. This has resulted in an increasing number of pensioners. In the second place, those born around 1990, also sizeable age groups, have reached the age at which they are leaving upper-secondary education and progressing to join the labour force or enter higher education. This has brought a decline in the number of upper-secondary students, while demand for higher education and the supply of younger labour have risen.

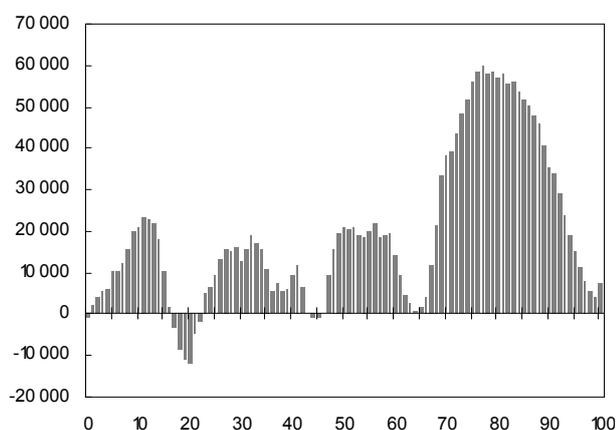
Statistics Sweden's population forecast from May 2010 is dominated by two effects of the shift in the composition of the population in the near future: rising average life expectancy and positive net immigration.

In the longer term, it is primarily a continued decline in mortality among the elderly that is affecting the age composition of the population. Consequently, the older age groups represent a growing proportion of the population. According to the forecast, this trend is expected to continue, albeit at a somewhat slower pace. Mortality has declined considerably over a period of many years.

According to the forecast, the population is expected to increase from the current 9.4 million to 10.9 million in 2060 and 11.4 million in 2099. Diagram 12 shows how the number of people in various age groups will change between 2010 and 2099 according to the forecast. The population increase is primarily a consequence of the rising number of people in the older age groups.

**Diagram 12 Change in population by age, 2010–2099**

Number of people

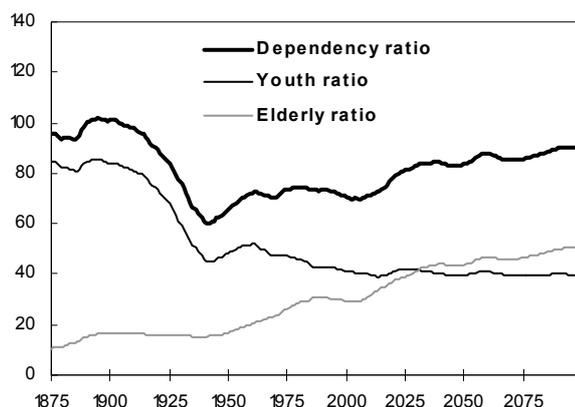


Sources: Statistics Sweden and own calculations.

Diagram 11 illustrates the changes in population by means of “youth”, “elderly” and “dependency ratios”. The youth ratio, i.e. the number of people aged 0-19 in relation to the number of people aged 20-64 decreased substantially during the first half of the 20th century, due to decreased childbirth, and was 39.7 per cent at the close of 2010. No major changes in youth ratio are expected in the near future.

**Diagram 13 Dependency ratios, 1875–2090**

Per cent



Note.: Youth ratio: Population aged 0–19 as a share of the population aged 20–64. Elderly ratio: Population aged 65 or older as a share of the population aged 20–64. Dependency ratio The sum of the youth and elderly ratios.

Sources: Statistics Sweden and own calculations.

The elderly ratio, i.e. the number of people aged 65 or above in relation to the number of people aged 20–64 has gradually risen and was 31.6 per cent at the close of 2010. This trend is expected to continue as a consequence of decreasing mortality. In 2030, the elderly ratio is expected to have risen to 41.5 per cent, in 2060 to 47.0 per cent and in 2099 to 50.7 per cent.

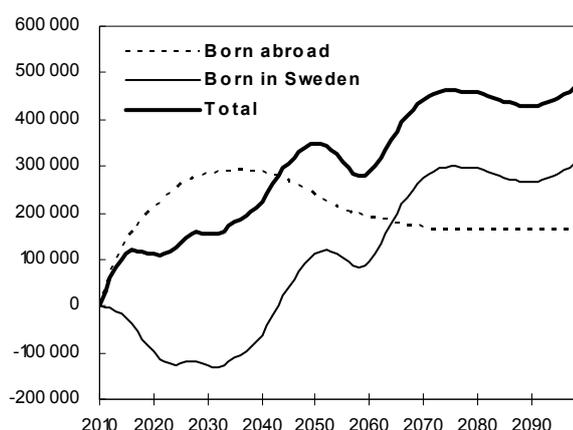
By adding the youth and elderly ratios, a “dependency ratio” is derived. This measures the number of people of non-working age in relation to the number of people of working age. As a consequence of the rising elderly ratio, there has been a rising trend in the dependency ratio since the start of the 1940s. In 2010, the ratio was 71.4 per cent. In the future, the dependency ratio is expected to rise further, amounting to 83.2 per cent in 2030, 88.0 per cent in 2060 and to 90.3 per cent in 2099. A ratio of 100 per cent means that each individual or working age should, in addition to him/herself, support one person of non-working age.

*The employable portion of the population is increasing thanks to immigration.*

Besides the age-related changes presented, the composition of the population will also change in terms of its origins. In 2010, close to 14.8 per cent of Sweden’s population was born beyond the country’s borders. The proportion is expected to rise to 17.4 per cent in 2030 and to 18.1 per cent in 2060. In addition to those born in other countries, a growing proportion of the population will be born in Sweden to immigrant parents. Without immigration, the working age population (20–64 years) would decline by 124 000 people by about 2025 (see Diagram 14).

**Diagram 14 Change in the number of people of age 20–64 years according to origin compared with 2010**

Number of people



Source: Statistics Sweden.

Positive net immigration means that the working age population is instead now expected to rise by 134 000 people by 2025. Immigration will continue to make a strong contribution until about 2035. This trend, combined with the fact that those born outside Sweden currently have a lower employment ratio and higher unemployment, underscores the importance of integrating immigrants into the labour market.

### *Demography in an international comparison*

Viewed from an international perspective, Sweden's demographic trend is relatively favourable. The UN estimates that the elderly ratio in Europe as a whole will rise to 52 per cent by 2050 (see Table 16). The problems are greater in Italy, Spain and Germany. In those countries, the elderly ratio is expected to rise substantially to between 64 and 68 per cent in 2050, which can be compared with slightly less than 45 per cent in Sweden.

**Table 16 The elderly ratio in different countries, 2000 and 2050**

Per cent

|                  | 2000        | 2050        |
|------------------|-------------|-------------|
| North America    | 20.9        | 39.7        |
| United Kingdom   | 26.9        | 41.5        |
| <b>Sweden</b>    | <b>29.3</b> | <b>44.8</b> |
| France           | 27.6        | 52.5        |
| Germany          | 26.2        | 64.2        |
| Spain            | 27.2        | 65.2        |
| Italy            | 29.8        | 68.2        |
| <b>Europe</b>    | <b>24.3</b> | <b>52.0</b> |
| <b>The world</b> | <b>12.7</b> | <b>28.2</b> |

Source: UN 2008.

### *The labour market*

The future development of the public finances is strongly dependent on how the labour market develops. Until 2016, the labour market will be affected by changes in the population, structural reforms and the expected return of the economy to normal resource utilisation in 2013. Structural reforms implemented during the Government's current and previous period in office mean that the employment ratio is, in the long term, judged to be approximately 2 per cent higher than it would have been if these reforms had not been implemented. In this calculation, it is assumed that the labour force and employment will develop in pace with the demographic trend after 2015. This means that the current labour market participation of various age groups is projected in accordance with the population forecast.

**Table 17 Key labour market figures**

Thousands of individuals in the age group 16-64 and in per cent

|                               | <b>2010</b>  | <b>2020</b>  | <b>2060</b>  | <b>2099</b>  |
|-------------------------------|--------------|--------------|--------------|--------------|
| Population                    | 6 009        | 6 043        | 6 269        | 6 462        |
| Labour force                  | 4 838        | 4 968        | 5 152        | 5 308        |
| Labour force participation    | 80.8         | 82.3         | 82.2         | 82.2         |
| Employed                      | 4 429        | 4 720        | 4 893        | 5 044        |
| Employment ratio              | 74.0         | 78.2         | 78.1         | 78.1         |
| Unemployed                    | 409          | 248          | 259          | 264          |
| Unemployment                  | 8.4          | 5.0          | 5.0          | 5.0          |
| <b>Hours worked, millions</b> | <b>7 346</b> | <b>7 892</b> | <b>8 226</b> | <b>8 467</b> |

Note: The table accounts for the age group 16-64 years, while the employment target in the EU's 2020 strategy applies to the age group 20-64 years. In the calculations, the employment ratio for the age group 20-64 years exceeds 80 per cent.  
Sources: Statistics Sweden and own calculations.

All in all, the proportion of people in the age group 16-64 years participating in the labour force will rise from 80.8 per cent in 2010 to 82.2 per cent in 2020. Over the same period, the proportion of people in employment is expected to rise from 74.0 to 78.1 per cent and unemployment is expected to fall by 3.4 percentage points to 5.0 per cent (see Table 17).

After 2020, only demographic aspects are assumed to affect the labour market. The employment ratio, labour force participation and unemployment vary somewhat for the years following 2020.

## **9.4 The public finances in the main scenario**

This chapter describes the projections of the public finances according to the Government's main scenario. This is to be considered a reference scenario against which the other scenarios can be compared. That does not mean that the trend in the main scenario is more likely than the trends in the alternative scenarios. The calculations should be perceived as a description of how general government expenditure and revenues will develop if the current design of the taxation and welfare systems is

maintained.<sup>8</sup> Thus, a good starting point is provided for analysing the consequences of the demographic changes and the problems that could conceivably arise for the long-term sustainability of fiscal policy.

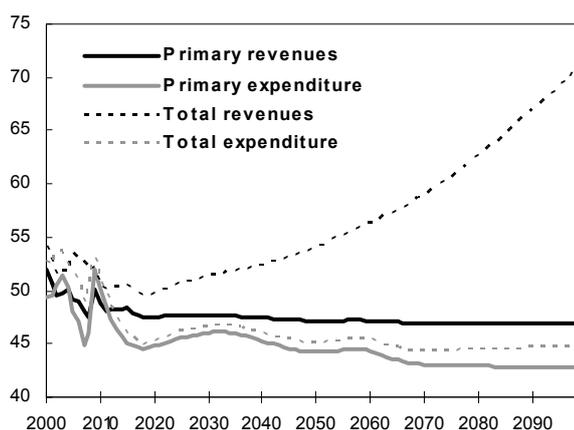
### *General government revenue*

In the calculations, tax and expenditure rates are kept constant after 2015 and general government revenue is subsequently affected mainly by the trend in the labour market. The primary general government revenues, which in 2010 amounted to 48.9 per cent of GDP, are expected to decrease marginally to 48.2 per cent of GDP in 2015. Primary general government revenues will subsequently decline somewhat more to 47.5 per cent of GDP in 2030 and to 46.7 per cent of GDP in 2099.

The high level of net lending at the outset and the continued favourable trend in net lending will lead to increased assets, from which the long-term return will be considerable. Total general government revenues, which also include capital revenues, will rise steadily, reaching 70.6 per cent in 2099 (see Diagram 15).

**Diagram 15 Primary and total general government expenditure and revenue**

Per cent of GDP



Source: Own calculations.

### *General government expenditure*

Primary general government expenditure, which in 2010 corresponded to 50.1 per cent of GDP, is expected to decline by slightly more than 5 percentage points to 45.0 per cent of GDP in 2015. It will subsequently fall by a few additional percentage points to 42.7 per cent in 2099. Transfer payments and consumption each account for slightly more than 2 percentage points of the initial rapid decline in the expenditure ratio. The considerable decline in expenditure should be considered in light of the very wide budgeting margin of SEK 57 billion and the high level of net lending at 4.4 per cent in 2015. The favourable starting point is of very considerable significance for the results of a long-term projection.

<sup>8</sup> What is meant by "unchanged" is explained in Appendix A.

**Table 18 Expenditure trend in welfare services in the scenario with unchanged standards**

Per cent of GDP

|                      | 2010        | 2020        | 2030        | 2060        | 2099        |
|----------------------|-------------|-------------|-------------|-------------|-------------|
| Care of the elderly  | 3.3         | 3.3         | 4.2         | 4.9         | 5.4         |
| Care of the disabled | 0.8         | 0.7         | 0.7         | 0.7         | 0.6         |
| Health care          | 6.7         | 6.4         | 6.6         | 6.2         | 5.7         |
| Education            | 4.9         | 4.4         | 4.5         | 4.1         | 3.6         |
| Childcare            | 1.7         | 1.7         | 1.6         | 1.5         | 1.3         |
| <b>Total</b>         | <b>27.2</b> | <b>25.1</b> | <b>26.3</b> | <b>25.1</b> | <b>23.5</b> |

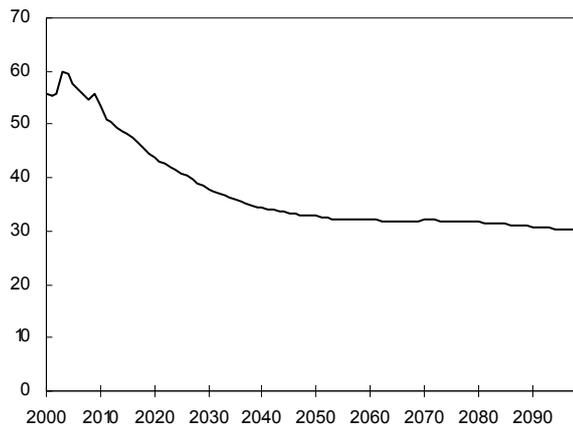
Source: Own calculations.

Total expenditure for general government consumption will decline from 27.2 per cent of GDP in 2010 to 23.5 per cent in 2099. Expenditure on care of the elderly will rise from 3.3 per cent of GDP to slightly more than 5.4 per cent. The consumption pattern is not assumed to change over time. For example, it is assumed that a woman of 75 will use the same amount of health care and care of the elderly in 2099 as today. As the elderly increase in number, the nominal costs for health care and care of the elderly will rise. However, a high level of growth will mean that health care costs will decrease as a percentage of GDP. Since the youth ratio decreases somewhat and standards are assumed to remain unchanged, expenditure on childcare and education will fall from 4.9 per cent of GDP in 2010 to 3.6 per cent of GDP in 2099. This trend should not be viewed as a forecast but rather as a stylised sample calculation, whereby unchanged policy is defined as unchanged standards in welfare services.

Changes in expenditure on old-age pensions will be relatively minor. Pension expenditure is expected to decline from 8.6 per cent of GDP in 2010 to 7.1 per cent in 2050 and to then rise somewhat to 7.6 per cent in 2099. The pension reform of the 1990s means that the increase in the number of elderly people will have a relatively limited impact on pension expenditure. In the calculation, the retirement age is assumed to remain constant, with the effect that average old-age pension will fall as average life expectancy rises (see Diagram 16). According to the National Accounts, the premium pension system forms part of household saving, meaning that the premium pensions are not included in the figures for pension expenditure. In the longer term, average premium pension is expected to account for approximately 20 per cent of average national old-age pension. The curve would be flatter if these were included.

**Diagram 16 Old-age pension per person 65 or older**

Per cent of average wage



Source: Own calculations.

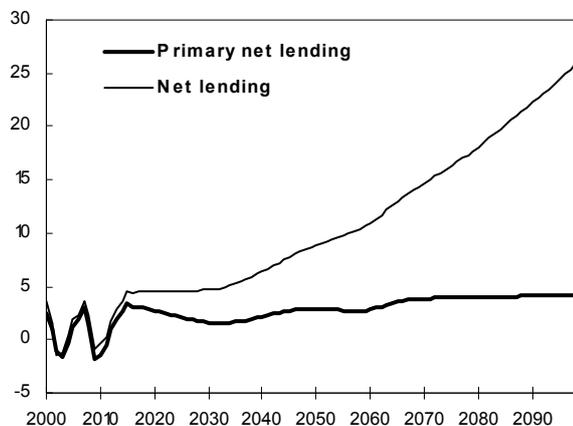
### *Net lending and net debt*

In 2010, general government net lending was negative in the amount of 0.3 per cent of GDP. In 2011-2013, there will be a gradual adjustment towards normal resource utilisation in the economy, with higher employment and lower unemployment. This will contribute to expenditure decreasing substantially and to net lending amounting to 4.4 per cent of GDP in 2015.

Primary net lending will decline until about 2032, that is, the period in which the large generation born in the 1940s will need increasing care of the elderly. Primary net lending will subsequently improve, amounting to 4.0 per cent in 2099. The high level of primary net lending will contribute to an accumulation of assets, thus generating capital revenues. Consequently, net lending that also includes capital revenues will be considerable in the longer term. In 2099, it will amount to 25.1 per cent (see Diagram 17).

**Diagram 17 Net lending and primary balance in the main scenario**

Per cent of GDP



Source: Own calculations.

As a consequence of strong net lending, the general government sector's net wealth will accumulate and the net financial position will increase from 21.6 per cent of GDP in 2010 to more than 446 per cent in 2099.

### *Sustainability indicators*

In the scenario with unchanged standards, S2 and S1 are negative 3.4 and negative 1.7 per cent of GDP respectively. Both indicators show that the public finances could be weakened without jeopardising long-term sustainability. However, the positive result is largely due to the highly favourable starting point in 2015.

## **9.5 Alternative scenarios**

Discussed below are the various assumptions on which the calculations in the main scenario are based. To enhance the understanding of the consequences for the public finances, the changes are made one at a time. The conclusions are discussed and compared with the main scenario in the summary assessment in the next Chapter.

### *Smaller surplus in the public finances in 2015*

The starting point for the long-term calculations affects the level of the general government sector's primary net lending throughout the period. It would not be unreasonable to start from a lower level for 2015 than is assumed in the main scenario. This alternative scenario assumes a gradual reduction in budgeting margins to 1 per cent of ceiling-restricted expenditure for 2015. The expenditure ceiling is assumed to remain unchanged. For calculation technical purposes, a quarter of the increase in expenditure is used for transfer payments in the social security system. The remaining three quarters are assumed, for calculation technical purposes, to result in increased central government support to the local government sector, which, in turn, means that municipalities and county councils can increase their consumption while still maintaining good financial management. The higher initial expenditure level is projected in accordance with the demographic trend from 2016, which is to say that the increase in expenditure is assumed to be permanent. In 2015, net lending is 3.2 rather than 4.4 per cent of GDP.

The permanent increase in expenditure means that general government net lending will be lower. The S2 and S1 indicators rise by 1.0 and 0.9 percentage points respectively.

### *The costs for welfare services are kept unchanged in relation to GDP*

Unlike the assumption of unchanged standards in the main scenario, the costs per age group are, in this alternative scenario, allowed to grow in pace with the economic trend. This approach is used by the European Commission, for example, in assessing the long-term sustainability of member states' public finances. The cost per user is thus indexed with GDP per capita at fixed prices. This means that, in absolute terms,

standards follow a rising trend. Since the demographic composition of the population varies over time, growth in GDP per capita will also vary, and consequently so will absolute standards. The standards this entails will, in turn, be determined by price trends and demography.

With otherwise unchanged assumptions, the calculations indicate higher standards but, at the same time, a steeper cost trend. In the scenario with an unchanged percentage of GDP, public consumption is 21 per cent higher in 2099 than it would be based solely on a demographic projection. The S2 indicator rises by 2.9 percentage points and S1 by 0.5 percentage points.

#### *Higher prices for welfare services*

To illustrate the effect of a steeper price trend for welfare services, a scenario is presented in which the deflator for general government consumption rises in pace with hourly wages over the long term. The scenario demonstrates the sensitivity of the calculations to variations in assumptions and the importance of keeping costs down by exerting pressure on prices. The assumption means that companies delivering consumption and capital goods to the general government sector can, in the long term, increase their profit margins, or that charges for welfare services do not follow cost trends, implying that the degree of self-financing will fall.

The steeper price trend implies that expenditure will increase more than in the main scenario. The effect on the sustainability indices is considerable. S2 and S1 rise by 3.1 and 0.3 percentage points respectively.

#### *Raised standards and hence increased expenditure on health care and care of the elderly*

In this scenario, expenditure on health care and care of the elderly is assumed to rise to the extent that local government consumption grows 0.25 per cent faster in terms of annual volumes than would be demographically motivated. The higher rate of growth can be motivated by the historic trend, both in Sweden and internationally. The explanation could be that increased welfare, in itself, implies increased demand for welfare services or that technological development generates new needs, leading to increased demand.

Rather than rising by about 50 per cent from 2000 to 2099, total general government consumption rises by 77 per cent in this alternative scenario. This leads to a strong rise in S2 and S1 by 3.3 and 0.9 percentage points respectively.

#### *Increased demand for leisure*

To capture the effect of the fact that increased economic prosperity can lead to increased demand for leisure, this scenario assumes that average working hours will gradually fall as the economy grows and households' consumption opportunities increase. Average working hours, defined as the number of hours worked per individual in employment, are expected

to decrease by 0.3 per cent per year compared with the trend in the main scenario. Increased demand for leisure and a decrease in the number of hours worked would lead to lower tax revenues and thus a weakening of sustainability.

As a consequence of this alternative scenario, S2 and S1 would rise by 4.6 and 1.3 percentage points respectively.

#### *Later withdrawal from the labour force*

This alternative scenario assumes a gradual rise in retirement age of two years by 2099. This corresponds to half of the increase in average life expectancy. By 2099, average remaining life expectancy at age 65 is expected to rise by 5.3 years for men and by 3.8 years for women. It is therefore reasonable to expect that the age at which people withdraw from the labour market, “retirement age”, will rise. The fact that the reformed pension system provides improved financial incentives to delay retirement also contributes to this because pensions increase the later they are withdrawn and because additional years in employment provide greater pension rights.

The higher retirement age means that the S2 indicator decreases by 1.0 percentage points and the S1 indicator decreases by 0.5 percentage points. Primary net lending strengthens successively and is higher throughout the period compared with the main scenario. In 2099, it amounts to 5.3 per cent of GDP.

#### *Higher productivity in the general government sector*

In the scenario with higher productivity in the general government sector, productivity in the production of tax-financed welfare services is assumed to rise by 0.1 per cent per year. This implies that fewer people could, in the long term, be employed in, for example, health care and care of the elderly and disabled, while the same quantity of services could be produced without jeopardising quality.

The effect is that the number of hours worked in the general government sector rises by only 6.5 per cent from 2000 to 2099, compared with 15.9 per cent if general government were to remain unchanged. The S2 and S1 indicators decline by 1.0 and 0.4 percentage points respectively.

#### *Lower age of entry into the labour market*

In this scenario the average age at which working life commences gradually falls by a total of one year by 2025. This implies an increase in labour force participation and the employment ratio in the age group 15-29 years. This measure increases the number of hours worked in the economy. The public finances will be affected through factors including lower transfer payments and lower expenditure on education, as well as through increased tax revenues.

The consequence of an earlier start to working life is that S1 and S2 decline by 0.6 and 0.5 percentage points respectively.

### *Improved integration of those born abroad*

Among those born abroad, the employment ratio among the age group 16-64 years was 61.8 per cent in 2010, while unemployment was 16.2 per cent. The corresponding figures for Swedish-born people were 76.5 per cent and 7.0 per cent respectively. Consequently, employment can potentially be raised and unemployment reduced through improved integration. In this scenario it is assumed that labour force participation and the employment ratio among foreign-born people will, over time, approach the same levels as among Swedish-born people. The discrepancy is assumed to gradually diminish by a third by 2025 and to remain steady after that point.

The calculations show that employment will be 1.8 per cent higher and the number of hours worked 1.7 per cent higher in 2025 compared with the main scenario. Such a trend would result in S2 and S1 declining by 0.5 and 0.4 percentage points respectively.

### *Increased productivity in the business sector*

This alternative scenario assumes that productivity in the business sector will rise by one tenth more per year than in the main scenario. Above all, this scenario implies a higher material standard and higher GDP per capita.

The effect on sustainability is relatively small, which is due to wages in the general government sector being assumed to follow wages in the business sector. The S2 indicator declines by 0.3 percentage points and S1 by 0.1 percentage points.

## **9.6 Summary assessment of sustainability**

In the main scenario, large and increasing surpluses are generated over the calculated period, resulting in negative S2 and S1 sustainability indicators of 3.4 and 1.7 per cent of GDP respectively. This means that net lending could be permanently weakened – by the equivalent of 3.4 per cent of GDP according to S2 – without any expected departure from the general government sector's intertemporal budget constraint. This does not, however, imply a scope for reform of 3.4 per cent of GDP. It is important to stress that the future trend could very well diverge from that presented by the main scenario. The main scenario, with unchanged standards, is simply a scenario and not a forecast of the most probable development.

An assessment of sustainability based solely on the main scenario would thus indicate that the public finances are sustainable in the long term by a good margin. However, sustainability should be assessed with the help of data from all of the scenarios. Table 19 presents the S2 and S1 indicators for all scenarios.

**Table 19 S2 and S1 indicators**

Per cent of GDP

|   | S2 indicator | S1 indicator |
|---|--------------|--------------|
| Main scenario   |              |              |
| Unchanged standards   | -3.4         | -1.7         |
| Alternative scenarios                                       |              |              |
| Smaller surplus in the public finances in 2015              | -2.4         | -0.8         |
| The costs for welfare services are fixed in relation to GDP | -0.5         | -1.2         |
| Higher prices for welfare services                          | -0.3         | -1.4         |
| Raised standards and hence increased expenditure            | -0.1         | -0.8         |
| Increased demand for leisure                                | 1.2          | -0.4         |
| Later withdrawal from the labour force                      | -4.4         | -2.2         |
| Higher productivity in the general government sector        | -4.4         | -2.1         |
| Lower age of entry into the labour market                   | -4.0         | -2.2         |
| Improved integration of those born abroad                   | -3.9         | -2.1         |
| Increased productivity in the business sector               | -3.7         | -1.8         |

Sources: Statistics Sweden and own calculations.

The starting point is that current fiscal policies are to be assessed from the perspective of sustainability. Since the long-term calculations proceed from the short-term forecast ending in 2015, it is, in practical terms, the fiscal policies and regulations of 2015 that are evaluated. The forecast for the period ending in 2015 includes an assessment of expenditure and revenues based on macroeconomic trends and currently adopted reforms. Net lending will amount to 4.4 per cent of GDP in 2015. The scope of net lending is dependent on the assessment of the long-term sustainable employment level, which is affected by factors including the impact of reforms on the labour market. These assessments are uncertain. If, for example, the long-term sustainable employment level were to be lower than that applied in the assessment, net lending would also be lower in 2015. The 2011 Budget Bill presented the Government's reform ambitions for its current period in office. These have not, however, been included in the forecast. Forecasts of economic trends are highly uncertain, even for the short and medium terms, and it is therefore advantageous to hold off on decisions to implement reforms until the scope for those reforms is definitely seen to exist. Reforms implemented without there being adequate economic scope could jeopardise the sustainability of the public finances. Given that net lending is expected to be high in 2015, it is likely that at least some of the reform ambitions presented in the 2011 Budget Bill will be implemented in reality. This would thus decrease net lending. Since, in the current situation, net lending is of considerable significance for the sustainability calculations, it is crucial to consider how reform policies may be expected to progress in practice. This means that the eventuality of net lending in 2015 being weaker than 4.4 per cent of GDP should be taken into account. This suggests that an analysis based on the main scenario would overestimate long-term sustainability.

The scenario with a reduced budgeting margin illustrates the problems discussed above. The scenario assumes a higher expenditure level in 2015 than in the main scenario. The scope of the permanent reforms included in the scenario corresponds to 1.2 per cent of GDP. Net lending would thus be 3.2 per cent of GDP in 2015, compared with 4.4 per cent in the main scenario. The public finances are strong according to this scenario too, although the margins decrease. If the increase in expenditure is accompanied by tax cuts, such as a further in-work tax credit, the margins would decrease even more.

The sustainability assessment can be viewed as a stress test whereby current fiscal policies are evaluated in relation to the future population. However, there is no easy answer to the question of how this should be accomplished in practical terms and how current fiscal policies can be defined and projected onto a future scenario. For this reason, an alternative method is modelled for maintaining a constant general government commitment in terms of welfare services. In addition to the main scenario's unchanged standards, another scenario is evaluated in which welfare services are kept constant as a percentage of GDP. In this scenario, primary net lending gradually worsens over the longer term and consequently so does the financial position of the general government sector. However, finances remain sustainable in the long term in this scenario too, albeit with a considerably smaller margin than in the main scenario.

Consequently, the public finances appear to be sustainable in the long term even when the circumstances vary. The uncertainty in these calculations is considerable and several risks exist that could impact sustainability negatively. If these risks were to converge, fiscal policy could become unsustainable. The demand for raised standards in welfare services illustrated in the "Raised standards" scenario, leads to sustainability being tangibly weakened. There is also a risk that demand for leisure will increase in the future, thus decreasing the number of hours worked in the economy, which would also weaken sustainability. The scenarios with different price and productivity assumptions show that relatively small changes in assumptions can have a considerable impact if projected far into the future. A few less favourable assumptions can lead to the conclusion that the sustainability of fiscal policies will weaken considerably. This shows that one must be careful not to draw conclusions that are too far-reaching from these calculations. The favourable sustainability in the main scenario cannot therefore be used to justify costly reforms today.

A number of scenarios analyse how sustainability can be strengthened by a more favourable trend in the labour market. If retirement age rises as average life expectancy rises, increased scope is gradually generated for raised standards or tax cuts. Rising retirement age could thus help mitigate the tension between demands on welfare services and what can be offered.

The alternative scenarios with increased integration and an earlier entry into the labour market show that higher participation in the labour force implies strong sustainable public finances. This generates scope for action in public finances, which is a strong argument for continued labour market reforms.

An overall assessment of all of the scenarios shows the long-term sustainability of fiscal policy in Sweden to be good.

## Appendix A – Calculation assumptions

The calculation methods used in the estimate of public finances during the period 2016–2099 are discussed in more detail below.

### *Demographic assumptions*

The estimate is based on Statistics Sweden’s population forecast of May 2010 shown in Table A.1.

**Table A.1 Demographic assumptions**

Number of children born per woman, number of years and number of individuals

|                                | 2010  | 2020  | 2030  | 2040  | 2050  | 2060  |
|--------------------------------|-------|-------|-------|-------|-------|-------|
| Birth rate                     | 1.971 | 1.861 | 1.833 | 1.827 | 1.825 | 1.825 |
| Average life expectancy, women | 83.1  | 84.3  | 85.1  | 85.8  | 86.3  | 86.8  |
| Average life expectancy, men   | 86.1  | 86.8  | 87.4  | 87.9  | 88.2  | 88.6  |
| Net migration, thousands       | 57.5  | 21.5  | 20.5  | 19.3  | 18.8  | 18.2  |

Sources: Statistics Sweden.

### *The labour market*

The development of the labour market is linked strongly to the demographic trend. Projections regarding employment and the number of hours worked are prepared according to age, gender and country of birth. Over time, the degree of participation in the labour market is assumed to remain constant in each group. This can be interpreted as an unchanged labour market behaviour, since the degree of absenteeism, level of sickness and activity compensation, average hours worked, employment ratio and unemployment are constant within each group.

The number of hours worked in the general government sector is assumed to rise somewhat more weakly than general government consumption related to demographic factors. This means that general government consumption is generated to a somewhat lesser extent by the sector’s own labour force and to a somewhat greater extent by procured services, input goods and investment capital. The change occurs gradually and in line with the historical trend.

The number of hours worked in the business sector represents the difference between the total number of hours worked, which is attributable to the population trend and assumptions regarding the extent to which people work, and the number of hours worked in the general government sector.

### *Productivity*

The assumption regarding productivity growth in the business sector is based on an analysis of historical trends. As far as the trend is concerned, underlying development in productivity is assumed to be 2.4 per cent from 2016 to 2020. It subsequently falls to 2.2 per cent in 2030 and then

remains at that level of growth. In an international comparison, except for the period 2007-2009, the productivity trend in Sweden has been strong over a period of just less than two decades. It is reasonable to assume that, in the long term, it will adjust to international growth rates. The weak trend in recent years has not affected the view regarding the long-term productivity trend.

The labour productivity trend in the general government sector is assumed to be zero from 2015.

### *Balance of resources and production*

GDP growth is the sum of the productivity trend in the economy as a whole term the trend in the number of hours worked. GDP is composed such that household expenditure on consumption accounts for 50 per cent of GDP in nominal terms. The level is adjusted to allow for reasonable development in household saving and net assets. Investments account for 20 per cent and inventories for 2 per cent. Imports will increase somewhat in the future, reaching 50 per cent in 2050. General government consumption is not set at any fixed percentage but is projected in line with the demographic trend and the price trend on general government consumption. The remaining component in the balance of resources consists of exports, which, in the calculations are residual. This means that there are several scenarios with unbalanced growth, i.e. the various components of GDP are not in balance. A possible high level of net lending in the general government sector is balanced by high net lending in another sector. In these calculations, that sector is the international community. In the calculations, imbalances in general government net lending will therefore generate corresponding imbalances in foreign trade and thus in the current account balance, since exports are calculated residually. The purpose of the calculations is not to generate scenarios with balanced growth and balanced net lending balances. The purpose of the calculations is precisely to emphasise potential imbalances.

Production in the general government sector is derived from general government consumption and an assumption that this consumption is generated by a gradually, slightly diminishing sector labour force. Production in the business sector is determined as the sum of productivity and hours worked in that sector.

### *Inflation and wages*

The Riksbank is assumed to pursue a monetary policy whereby inflation maintains a rate of 2 per cent. The proportion of wage costs and gross profits in the business sector is assumed to be constant in the long term. Wages are thus determined by the price level and productivity. Higher productivity and a higher GDP deflator generate scope for increased wages.

Wages in the general government sector rise in pace with those in the private sector.

### *Assumptions regarding return on capital*

In the long term, it is assumed that average interest income and expenses are the same for all sectors in the economy. A nominal interest rate of 5 per cent is assumed. Given inflation of 2 per cent, the real rate of interest will be 3 per cent. In addition to interest-bearing assets, the general government sector also has non-interest-bearing assets. The return on these assets consists of share dividends and changes in value. Over time, dividends are assumed to be 3 per cent and value increases 2 per cent. The total return thus amounts to 5 per cent, which is the same as for interest-bearing assets.

Also in the long term, it is likely that differences arise between borrowing and lending rates and that there are differences between sectors. It is also likely that the return on non-interest-bearing assets is higher than for interest-bearing assets in the long term. However, the assumption regarding the return on financial capital is used for the purpose of simplification and to avoid the focus of the analysis shifting from central issues to those surrounding the dynamics of debt. The calculation of the S2 sustainability indicator uses primary net lending, which is not affected by capital revenues or the return assumption. This does, however, affect S1 and the debt ratio, which are also important in the assessment of sustainability.

**Table A.2 Macroeconomic assumptions**

Annual percentage change and per cent

|   | 2010 | 2015 | 2020 | 2030 | 2040 | 2050 | 2060 |
|---|------|------|------|------|------|------|------|
| <b>Percentage change</b>                |      |      |      |      |      |      |      |
| Population aged 16-64                   | 0.4  | -0.0 | 0.1  | -0.0 | 0.2  | 0.0  | 0.1  |
| Labour force participation, 16-64 years | 1.2  | 0.2  | 0.1  | 0.0  | 0.2  | 0.0  | 0.1  |
| Number of employed, 16-64 years         | 1.1  | 0.5  | 0.1  | -0.0 | 0.3  | 0.1  | 0.1  |
| Hours worked                            | 2.5  | 1.2  | -0.1 | 0.1  | 0.2  | 0.1  | 0.1  |
| Business sector productivity            | 3.6  | 1.6  | 2.6  | 2.2  | 2.2  | 2.2  | 2.2  |
| GDP, fixed prices                       | 5.5  | 2.7  | 2.0  | 2.0  | 2.2  | 2.0  | 2.2  |
| GDP per capita                          | 4.6  | 2.1  | 1.5  | 1.7  | 2.1  | 1.9  | 2.1  |
| GDP productivity                        | 2.9  | 1.5  | 2.1  | 1.9  | 2.0  | 2.0  | 2.1  |
| GDP deflator                            | 1.3  | 1.6  | 2.4  | 2.2  | 2.0  | 2.0  | 1.8  |
| CPI, annual average                     | 1.2  | 2.4  | 2.0  | 2.0  | 2.0  | 2.0  | 2.0  |
| Hourly wages                            | 0.5  | 3.1  | 4.7  | 4.2  | 4.1  | 4.0  | 3.9  |
| <b>Per cent</b>                         |      |      |      |      |      |      |      |
| Real interest                           | 1.7  | 2.6  | 3.0  | 3.0  | 3.0  | 3.0  | 3.0  |
| Employment ratio, 16-64 years           | 74.0 | 78.2 | 78.2 | 77.1 | 77.4 | 77.9 | 78.1 |
| ILO unemployment, 16-64 years           | 8.4  | 5.0  | 5.0  | 5.2  | 5.3  | 5.1  | 5.0  |

Sources: Statistics Sweden and own calculations.

### *General government revenue*

The estimates described here are based on an assumption of constant tax rates relative to different 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.3 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.

**Table A.3 Taxes and charges**

Per cent of GDP

|   | 2010        | 2015        | 2020        | 2030        | 2040        | 2050        | 2060        |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Taxes and charges</b>  | <b>45.5</b> | <b>44.8</b> | <b>44.1</b> | <b>44.1</b> | <b>43.9</b> | <b>43.7</b> | <b>43.8</b> |
| Household direct taxes and charges  |             |             |             |             |             |             |             |
| Percentage of GDP   | 18.8        | 18.6        | 18.4        | 18.5        | 18.5        | 18.5        | 18.6        |
| Implicit tax rate for direct taxes  | 21.5        | 21.7        | 21.7        | 21.7        | 21.7        | 21.7        | 21.7        |
| Tax base for direct taxes as percentage of GDP                                      | 45.0        | 44.0        | 43.6        | 44.1        | 44.3        | 44.4        | 44.5        |
| Implicit tax rate for charges   | 5.6         | 5.6         | 5.5         | 5.6         | 5.6         | 5.6         | 5.6         |
| Tax base for charges as percentage of GDP   | 45.0        | 44.0        | 43.6        | 44.1        | 44.3        | 44.4        | 44.5        |
| Corporate direct taxes  |             |             |             |             |             |             |             |
| Percentage of GDP   | 3.3         | 3.5         | 3.2         | 3.2         | 3.2         | 3.2         | 3.2         |
| Implicit tax rate   | 8.3         | 8.8         | 7.9         | 7.9         | 7.9         | 7.9         | 7.9         |
| Tax base as percentage of GDP   | 39.8        | 40.0        | 40.6        | 40.2        | 40.5        | 40.7        | 40.8        |
| Indirect taxes <sup>1</sup>   |             |             |             |             |             |             |             |
| Percentage of GDP   | 13.8        | 13.4        | 13.3        | 13.2        | 12.9        | 12.7        | 12.6        |
| Implicit tax rate   | 28.5        | 27.4        | 27.0        | 26.3        | 25.8        | 25.5        | 25.2        |
| Tax base as percentage of GDP   | 48.5        | 49.0        | 49.5        | 50.0        | 50.0        | 50.0        | 50.0        |
| Employer contributions and self-employed social security contributions <sup>2</sup> |             |             |             |             |             |             |             |
| Percentage of GDP   | 9.2         | 9.3         | 9.2         | 9.3         | 9.3         | 9.3         | 9.3         |
| Implicit tax rate   | 22.6        | 22.5        | 22.5        | 22.5        | 22.5        | 22.5        | 22.5        |
| Tax base as percentage of GDP   | 40.8        | 41.2        | 40.8        | 41.2        | 41.4        | 41.5        | 41.6        |

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

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

Sources: Statistics Sweden and own calculations.

### *General government consumption expenditure*

Two projections of general government consumption are produced: a volume projection and a price projection.

The calculation of general government consumption is based on costs for various purposes, such as education, health care and care of the elderly and disabled, distributed according to age and gender. All areas of expenditure are projected in line with the demographic trend. This means that, in real terms, equal general government services will be allocated to a woman of 70 in 2099 as in 2015. This can be seen as an expression of unchanged standards in general government services. In staff-intensive operations, such as childcare, this could be interpreted as implying unchanged staffing levels.

The price of general government consumption develops in line with a total appraisal of the price of the components included in gross production – i.e. hourly wages, the price of consumption and the price of capital deterioration (the investment price).

A gradual substitution of proprietary labour with input goods and capital is assumed in the production of general government operations. This assumption is in line with the historical trend.

**Table A.4 General government consumption**

Per cent of GDP

|                                 | 2010        | 2015        | 2020        | 2030        | 2040        | 2050        | 2060        |
|---------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Total consumption</b>        | <b>27.2</b> | <b>24.9</b> | <b>25.1</b> | <b>26.3</b> | <b>25.9</b> | <b>25.3</b> | <b>25.1</b> |
| Childcare                       | 1.7         | 1.7         | 1.7         | 1.6         | 1.5         | 1.5         | 1.5         |
| Primary and secondary education | 3.7         | 3.3         | 3.4         | 3.6         | 3.3         | 3.2         | 3.3         |
| Adult education                 | 1.7         | 1.5         | 1.4         | 1.4         | 1.3         | 1.2         | 1.2         |
| Health care                     | 6.7         | 6.3         | 6.4         | 6.6         | 6.5         | 6.3         | 6.2         |
| Care of the elderly             | 3.3         | 3.1         | 3.3         | 4.2         | 4.6         | 4.7         | 4.9         |
| Other activities                | 10.1        | 9.1         | 9.0         | 9.0         | 8.6         | 8.3         | 8.1         |

Sources: Statistics Sweden and own calculations.

### *Transfer payments*

The estimates assume a certain standard guarantee in the general government transfer payment systems. For a part of transfer payments, there are rules and regulations that automatically raise expenditure in pace with wages. 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 are assumed to rise 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.

**Table A.5 General government transfer payments**

Per cent of GDP

|   | 2010        | 2015        | 2020        | 2030        | 2040        | 2050        | 2060        |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Total transfer payments</b>            | <b>19.6</b> | <b>17.1</b> | <b>16.8</b> | <b>16.8</b> | <b>16.5</b> | <b>16.1</b> | <b>16.5</b> |
| Transfer payments to households           | 16.2        | 14.0        | 13.7        | 13.7        | 13.5        | 13.1        | 13.4        |
| Old-age                                   | 8.6         | 8.2         | 7.9         | 7.7         | 7.5         | 7.1         | 7.4         |
| Ill health                                | 3.1         | 2.3         | 2.3         | 2.4         | 2.4         | 2.4         | 2.4         |
| Children/studies                          | 2.3         | 2.0         | 2.0         | 2.0         | 2.0         | 2.0         | 2.0         |
| Labour market                             | 1.1         | 0.5         | 0.5         | 0.5         | 0.5         | 0.5         | 0.5         |
| Other                                     | 1.6         | 1.3         | 1.3         | 1.3         | 1.3         | 1.3         | 1.3         |
| Transfer payments to companies and abroad | 3.3         | 3.0         | 3.0         | 3.0         | 3.0         | 3.0         | 3.0         |

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, sickness compensation 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 own calculations.

### *Old-age pension system*

Table A.6 shows the old-age pension system's revenue and expenditure and its financial position. The calculation of pension expenditure is based on demographic trends, economic conditions and applicable regulations. The average pensionable age is assumed to be 65 years and to remain constant.

**Table A.6 Old-age pension system**

Per cent of GDP

|                             | 2010        | 2015        | 2020        | 2030        | 2040        | 2050        | 2060        |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Revenue</b>              | <b>7.0</b>  | <b>6.9</b>  | <b>6.8</b>  | <b>6.8</b>  | <b>6.7</b>  | <b>6.8</b>  | <b>6.9</b>  |
| Charges                     | 6.3         | 6.1         | 6.0         | 6.1         | 6.1         | 6.2         | 6.2         |
| Interest, dividends etc.    | 0.7         | 0.8         | 0.8         | 0.6         | 0.6         | 0.7         | 0.7         |
| <b>Expenditure</b>          | <b>6.8</b>  | <b>6.8</b>  | <b>6.6</b>  | <b>6.5</b>  | <b>6.2</b>  | <b>6.0</b>  | <b>6.3</b>  |
| Pensions                    | 6.7         | 6.7         | 6.5         | 6.4         | 6.2         | 5.9         | 6.2         |
| Other                       | 0.1         | 0.1         | 0.1         | 0.1         | 0.1         | 0.1         | 0.1         |
| <b>Net lending</b>          | <b>0.2</b>  | <b>0.1</b>  | <b>0.2</b>  | <b>0.3</b>  | <b>0.5</b>  | <b>0.9</b>  | <b>0.6</b>  |
| <b>Net financial assets</b> | <b>26.7</b> | <b>22.3</b> | <b>19.9</b> | <b>17.2</b> | <b>16.0</b> | <b>18.7</b> | <b>21.4</b> |

Sources: Statistics Sweden and own calculations.

Table A.7 presents a number of key variables from the Swedish convergence programme in the form recommended by the European Commission.

**Table A.7 Long-term sustainability of public finances**

Per cent of GDP, unless otherwise stated

|   | 2010        | 2015        | 2020        | 2030        | 2040        | 2050        | 2060        |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Total expenditure</b>                                      | <b>51.1</b> | <b>45.9</b> | <b>45.0</b> | <b>45.0</b> | <b>43.1</b> | <b>40.7</b> | <b>39.0</b> |
| Age-related <sup>1</sup>                                      | 27.1        | 24.8        | 24.8        | 25.8        | 25.5        | 24.9        | 25.2        |
| Pensions <sup>2</sup>   | 8.6         | 8.2         | 7.9         | 7.7         | 7.5         | 7.1         | 7.4         |
| Guarantee pensions  | 0.6         | 0.4         | 0.4         | 0.4         | 0.4         | 0.4         | 0.4         |
| Old-age pensions  | 6.7         | 6.7         | 6.5         | 6.4         | 6.2         | 5.9         | 6.2         |
| Other pensions (disability and survivor)                      | 0.7         | 0.5         | 0.5         | 0.4         | 0.3         | 0.3         | 0.3         |
| Public pension fund reserves                                  | 0.6         | 0.6         | 0.6         | 0.6         | 0.6         | 0.6         | 0.6         |
| Health care   | 6.7         | 6.3         | 6.4         | 6.6         | 6.5         | 6.3         | 6.2         |
| Care of the elderly   | 4.1         | 3.8         | 4.0         | 4.9         | 5.3         | 5.4         | 5.5         |
| Childcare   | 1.7         | 1.7         | 1.7         | 1.6         | 1.5         | 1.5         | 1.5         |
| Education   | 4.9         | 4.4         | 4.4         | 4.5         | 4.3         | 4.1         | 4.1         |
| Unemployment benefit  | 1.1         | 0.5         | 0.5         | 0.5         | 0.5         | 0.5         | 0.5         |
| Other age-related expenditure                                 | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         |
| Interest expenditure  | 1.0         | 1.0         | 0.2         | -1.3        | -2.5        | -4.2        | -6.1        |
| <b>Total revenue</b>  | <b>50.7</b> | <b>50.3</b> | <b>49.3</b> | <b>49.4</b> | <b>49.2</b> | <b>49.1</b> | <b>49.4</b> |
| of which, capital revenues                                    | 1.8         | 2.1         | 1.9         | 1.9         | 1.9         | 2.1         | 2.4         |
| of which, pension system                                      | 0.7         | 0.8         | 0.8         | 0.6         | 0.6         | 0.7         | 0.7         |
| <b>Assumptions</b>  |             |             |             |             |             |             |             |
| Labour productivity growth, GDP level                         | 3.1         | 1.5         | 2.1         | 1.8         | 2.0         | 2.0         | 2.1         |
| GDP growth  | 5.5         | 2.7         | 2.0         | 2.0         | 2.2         | 2.0         | 2.2         |
| Unemployment  | 8.4         | 5.0         | 5.0         | 5.2         | 5.3         | 5.1         | 5.0         |
| Population aged 65 and over as percentage of total population | 18.4        | 19.9        | 20.8        | 22.6        | 23.9        | 23.9        | 25.0        |

<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> In addition to old-age pension, pensions also include sickness and activity compensation.

Sources: Statistics Sweden and own calculations.

## Appendix B – Comparison with long-term projections for the EU

A working group (the Ageing Working Group, AWG) under the Economic Policy Committee (EPC) has, together with the European Commission, made projections for the development of demographically related expenditure up to 2060. These estimates were last reported in 2009.<sup>9</sup> The calculations in the convergence programme are, however, based on the data presented to the Riksdag in the 2011 Spring Fiscal Policy Bill. This section compares the demographic and macroeconomic key figures as well as the demographically dependent expenditure from these two sources. The comparison is made for the period from 2007 – the year in which the EPC estimates commenced.

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

Index, unless otherwise stated

|                                     | 2007  | 2010  | 2020  | 2030  | 2040  | 2050  | 2060  |
|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|
| Population aged 15-64               |       |       |       |       |       |       |       |
| EPC                                 | 100.0 | 101.7 | 102.5 | 103.9 | 104.7 | 105.8 | 103.9 |
| Convergence programme               | 100.0 | 101.8 | 102.3 | 104.0 | 105.3 | 106.8 | 106.2 |
| Employed                            |       |       |       |       |       |       |       |
| EPC, aged 15-64                     | 100.0 | 96.7  | 107.0 | 108.0 | 109.0 | 110.7 | 108.9 |
| Convergence programme, aged 16-64   | 100.0 | 99.7  | 106.2 | 106.6 | 108.1 | 110.5 | 110.1 |
| Hours                               |       |       |       |       |       |       |       |
| EPC                                 | 100.0 | 101.5 | 105.8 | 107.1 | 108.2 | 109.7 | 108.9 |
| Convergence programme               | 100.0 | 100.4 | 107.8 | 108.2 | 110.0 | 112.3 | 112.4 |
| ILO unemployment, percentage points |       |       |       |       |       |       |       |
| EPC, aged 15-64                     | 6.1   | 10.4  | 5.9   | 5.9   | 5.9   | 5.9   | 5.9   |
| Convergence programme, aged 16-64   | 6.2   | 8.4   | 5.0   | 5.2   | 5.3   | 5.1   | 5.0   |
| Labour productivity                 |       |       |       |       |       |       |       |
| EPC                                 | 100.0 | 106.2 | 126.9 | 150.7 | 178.2 | 210.8 | 249.3 |
| Convergence programme               | 100.0 | 98.9  | 121.3 | 146.0 | 176.8 | 215.4 | 262.5 |
| GDP                                 |       |       |       |       |       |       |       |
| EPC                                 | 100.0 | 107.8 | 134.2 | 161.2 | 192.6 | 230.7 | 271.0 |
| Convergence programme               | 100.0 | 99.3  | 131.1 | 159.1 | 196.1 | 243.6 | 297.2 |
| GDP per capita                      |       |       |       |       |       |       |       |
| EPC                                 | 100.0 | 105.6 | 124.2 | 143.1 | 167.7 | 197.1 | 227.2 |
| Convergence programme               | 100.0 | 96.8  | 120.4 | 141.0 | 170.8 | 208.4 | 250.8 |

Sources: European Commission and own calculations.

The population forecast applied in the ECP was prepared by Eurostat in 2008. The calculations in the convergence programme are based on Statistics Sweden's population forecast from May 2010. Population

<sup>9</sup> The 2009 Ageing report: Economic and budgetary projections for the EU 27 Member States (2007–2060).

growth among people of working age is initially similar in the two forecasts. In the EPC forecast, net immigration is assumed to start converging towards zero after 2050, meaning that the proportion of the population in paid employment will decrease between 2050 and 2060. The large generations born around 1990 will also be reaching an age beyond working age between 2050 and 2060, giving a negative impact on the number of people of working age in both Statistics Sweden and Eurostat's forecasts. Another important difference between the population forecasts is that the EPC applies a higher average life expectancy than Statistics Sweden, primarily for women.

The convergence programme assumes that unemployment will adjust to a structural level of approximately 5.0 per cent. In the ECP, the level is 5.9 per cent. The ECP applies a stronger level of employment over a large portion of the period. In the final year, 2060, however, it is lower. However, the variable of greatest importance to the outcome is employment, measured as the number of hours worked. In the convergence programme, this is higher almost throughout the period and even in 2060.

The productivity level for 2060 is higher in the convergence programme than in EPC's calculations. Initially, however, it is lower.

One reason for the GDP level for 2060 being higher in the convergence programme is the higher productivity level. Hours worked also contribute to higher GDP in the convergence programme in the longer term.

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

Percentage of GDP

|                              | Change 2007–2060 |            |             | Change 2007–2015 |             |             | Change 2015–2060 |            |             |
|------------------------------|------------------|------------|-------------|------------------|-------------|-------------|------------------|------------|-------------|
|                              | CP               | EPC        | CP-EPC      | CP               | EPC         | CP-EPC      | CP               | EPC        | CP-EPC      |
| Pensions                     | -0.5             | -0.1       | -0.4        | 0.3              | 0.0         | 0.3         | -0.8             | -0.1       | -0.7        |
| Health care                  | -0.2             | 0.8        | -1.0        | -0.1             | 0.2         | -0.3        | -0.1             | 0.6        | -0.7        |
| Care of the elderly/disabled | 1.6              | 2.3        | -0.7        | -0.1             | 0.0         | -0.1        | 1.7              | 2.3        | -0.6        |
| Education                    | -0.8             | -0.2       | -0.6        | -0.5             | -0.5        | 0.0         | -0.3             | 0.3        | -0.6        |
| Unemployment benefit         | -0.4             | 0.0        | -0.4        | -0.4             | 0.0         | -0.4        | 0.0              | 0.0        | 0.0         |
| <b>Total</b>                 | <b>-0.3</b>      | <b>2.5</b> | <b>-2.8</b> | <b>-0.8</b>      | <b>-0.5</b> | <b>-0.3</b> | <b>0.5</b>       | <b>3.0</b> | <b>-2.5</b> |

Note: CP is the abbreviation for convergence programme. Childcare is not included in this tabulation.

Sources: European Commission and own calculations.

The differences in age-related general government expenditure are found in all areas. This is largely because the ECP assumes an improvement in standards in general government services. This is also a natural consequence of the higher average life expectancy applied by EPC. The higher average life expectancy also leads to somewhat higher pension expenditure. The lower cost trend for unemployment benefits in the convergence programme is attributable to the lower level of unemployment.



## Appendix C – Tables

**Table C.1 Forecast assumptions**

Closing rate, unless otherwise stated

|   | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|------|------|------|------|------|
| GDP world <sup>1</sup>                                | 4.8  | 4.6  | 4.5  | 4.5  | 4.5  |
| GDP eurozone <sup>1</sup>                             | 1.7  | 1.7  | 1.8  | 2.0  | 1.8  |
| Hourly wages in Sweden <sup>1,2</sup>                 | 0.9  | 2.5  | 3.3  | 3.6  | 3.7  |
| TCW index   | 124  | 119  | 120  | 121  | 121  |
| SEK/EUR   | 9.05 | 8.70 | 8.80 | 8.80 | 8.80 |
| EUR/USD   | 1.39 | 1.37 | 1.33 | 1.30 | 1.30 |
| Swedish 10-year government bond yield, annual average | 2.89 | 3.53 | 4.00 | 4.66 | 5.00 |
| Swedish 6-month interest rate, annual average         | 0.59 | 2.10 | 2.93 | 3.63 | 3.90 |
| Oil price, (Brent, USD/barrel)                        | 92   | 100  | 105  | 110  | 112  |

<sup>1</sup> Annual percentage change.

<sup>2</sup> Definition in accordance with the National Accounts.

Source: Own calculations.

**Table C.2 Balance of resources**

Percentage change in volume and SEKbn

|  | SEKbn<br>2009 | Percentage change in volume |            |            |            |            |
|--|---------------|-----------------------------|------------|------------|------------|------------|
|  |               | 2010                        | 2011       | 2012       | 2013       | 2014       |
| Household consumption expenditure          | 1 527         | 3.5                         | 3.9        | 4.0        | 3.3        | 2.7        |
| General government consumption expenditure | 858           | 2.6                         | 0.9        | 0.6        | 0.6        | 0.6        |
| Central government                         | 227           | 4.7                         | 0.8        | -0.1       | -0.5       | -0.4       |
| Local government                           | 631           | 1.9                         | 0.9        | 0.9        | 1.0        | 0.9        |
| Gross fixed capital formation              | 550           | 6.3                         | 10.4       | 8.8        | 6.4        | 4.8        |
| Changes in inventories <sup>1</sup>        | -47           | 2.1                         | 0.0        | -0.3       | 0.0        | 0.0        |
| Exports                                    | 1 495         | 10.7                        | 9.2        | 7.0        | 7.0        | 6.4        |
| Imports                                    | 1 294         | 12.7                        | 9.1        | 7.3        | 6.6        | 6.5        |
| <b>GDP</b>                                 | <b>3 089</b>  | <b>5.5</b>                  | <b>4.6</b> | <b>3.8</b> | <b>3.6</b> | <b>2.8</b> |
| GDP, calendar adjusted                     | 3 090         | 5.3                         | 4.6        | 4.1        | 3.6        | 2.9        |
| GDP, fixed prices                          | 3 089         | 6.9                         | 4.8        | 4.6        | 5.2        | 4.5        |

<sup>1</sup> Changes in stocks are expressed in terms of their contribution to GDP growth (percentage points) and not as percentage change in volume.

Sources: Statistics Sweden and own calculations.

**Table C.3 Contributions to GDP growth**

Percentage points

|  | 2010       | 2011       | 2012       | 2013       | 2014       |
|--|------------|------------|------------|------------|------------|
| Final domestic demand                      | 3.6        | 4.0        | 3.7        | 3.0        | 2.4        |
| Household consumption expenditure          | 1.7        | 1.9        | 1.9        | 1.6        | 1.3        |
| General government consumption expenditure | 0.7        | 0.2        | 0.2        | 0.2        | 0.1        |
| Gross fixed capital formation              | 1.1        | 1.9        | 1.7        | 1.3        | 1.0        |
| Changes in inventories                     | 2.1        | 0.0        | -0.3       | 0.0        | 0.0        |
| Net exports                                | -0.1       | 0.6        | 0.3        | 0.6        | 0.4        |
| Exports                                    | 5.2        | 4.7        | 3.7        | 3.8        | 3.6        |
| Imports                                    | -5.3       | -4.1       | -3.4       | -3.2       | -3.2       |
| <b>GDP</b>                                 | <b>5.5</b> | <b>4.6</b> | <b>3.8</b> | <b>3.6</b> | <b>2.8</b> |

Sources: Statistics Sweden and own calculations.

**Table C.4 Deflators and price indexes**

Annual percentage change

|   | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|------|------|------|------|------|
| GDP deflator                                | 1.3  | 0.2  | 0.9  | 1.5  | 1.7  |
| Deflator for household consumption          | 1.3  | 0.6  | 1.2  | 2.0  | 2.3  |
| Deflator for general government consumption | 2.1  | 1.4  | 2.1  | 2.6  | 2.6  |
| Deflator for investments                    | 0.4  | 0.5  | 1.0  | 0.9  | 1.0  |
| Export deflator                             | -0.4 | -2.7 | -0.4 | 0.6  | 0.8  |
| Import deflator                             | -0.2 | -2.0 | 0.5  | 1.2  | 1.2  |
| HICP, Dec-Dec                               | 2.1  | 0.4  | 1.3  | 1.8  | 1.8  |
| CPI, Dec-Dec                                | 2.3  | 1.7  | 2.4  | 2.9  | 2.5  |
| CPIF, Dec-Dec                               | 2.3  | 0.4  | 1.6  | 2.1  | 2.1  |

Sources: Statistics Sweden and own calculations.

**Table C.5 Labour market**

Annual percentage change, unless otherwise stated

|  | 2009    | 2010 | 2011 | 2012 | 2013 | 2014 |
|--|---------|------|------|------|------|------|
| Number of employed <sup>1</sup>                    | 4 499   | 1.1  | 2.5  | 1.4  | 1.3  | 1.1  |
| Number of hours worked <sup>2</sup>                | 717 927 | 1.9  | 1.9  | 2.0  | 1.8  | 1.3  |
| Unemployment <sup>3</sup>                          | 408     | 8.4  | 7.3  | 6.6  | 5.8  | 5.2  |
| Labour market policy programmes <sup>1</sup>       | 127     | 3.7  | 3.5  | 2.8  | 2.4  | 2.0  |
| Employment ratio, aged 15-74                       |         | 64.7 | 65.8 | 66.3 | 66.9 | 67.4 |
| Labour productivity <sup>4</sup>                   |         | 4.4  | 2.1  | 2.7  | 2.3  | 1.7  |
| Increase in hourly wages <sup>5</sup>              | 195     | 0.9  | 2.5  | 3.3  | 3.6  | 3.7  |
| Wage bill (incl. collective charges <sup>6</sup> ) | 1 707   | 3.8  | 2.8  | 5.2  | 5.4  | 5.1  |

<sup>1</sup> Thousands of individuals.<sup>2</sup> Thousands of hours, calendar corrected.<sup>3</sup> Thousands of individuals and per cent of labour force aged 15-74, harmonised definition according to Eurostat.<sup>4</sup> Calendar-corrected real GDP per employed.<sup>5</sup> According to the definition applied in the National Accounts.<sup>6</sup> Including collective charges and wage-dependent production taxes, SEKbn.

Sources: Statistics Sweden and own calculations.

**Table C.6 Balance of payments**

Per cent of GDP

|                                     | 2010 | 2011 | 2012 | 2013 | 2014 |
|-------------------------------------|------|------|------|------|------|
| Balance of payments                 | 6.3  | 6.2  | 6.0  | 6.0  | 5.6  |
| of which, trade balance             | 2.5  | 2.4  | 1.9  | 1.7  | 1.5  |
| of which, balance of services       | 3.5  | 3.4  | 3.5  | 3.7  | 3.9  |
| of which, factor income             | 1.7  | 1.5  | 1.7  | 1.8  | 1.5  |
| of which, current transfer payments | -1.4 | -1.1 | -1.2 | -1.2 | -1.2 |

Sources: Statistics Sweden and own calculations.

**Table C.7 Resource situation**

Per cent of potential GDP

|                                    | 2010 | 2011 | 2012 | 2013 | 2014 |
|------------------------------------|------|------|------|------|------|
| <b>GDP gap</b>                     | -3.8 | -1.9 | -0.7 | -0.1 | 0.1  |
| of which, employment gap           | -2.5 | -1.3 | -0.8 | -0.4 | 0.0  |
| of which, productivity gap         | -1.3 | 0.2  | 0.5  | 0.4  | 0.0  |
| of which, average hours worked gap | -0.1 | -0.8 | -0.4 | 0.0  | 0.1  |

Sources: Statistics Sweden and own calculations.

**Table C.8 General government finances**

Per cent of GDP, unless otherwise stated

|   | SEKbn        |             |             |             |             |             |
|---|--------------|-------------|-------------|-------------|-------------|-------------|
|   | 2010         | 2010        | 2011        | 2012        | 2013        | 2014        |
| <b>Revenue excl. tax to EU</b>          | <b>1 739</b> | <b>52.7</b> | <b>51.9</b> | <b>52.1</b> | <b>51.9</b> | <b>51.9</b> |
| Taxes and charges incl. tax to EU       | 1 510        | 45.7        | 45.1        | 45.4        | 45.3        | 45.4        |
| Taxes excl. tax to EU                   | 1 229        | 37.2        | 35.2        | 35.4        | 35.3        | 35.3        |
| Direct taxes                            | 634          | 19.2        | 16.2        | 16.4        | 16.4        | 16.4        |
| Product and production taxes            | 595          | 18.0        | 19.0        | 19.0        | 18.9        | 18.9        |
| Taxes on capital                        | 0            | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         |
| Social security contributions           | 289          | 8.7         | 10.2        | 10.2        | 10.2        | 10.2        |
| Capital income, consolidated            | 60           | 1.8         | 2.0         | 2.0         | 2.0         | 2.0         |
| Other revenues                          | 162          | 4.9         | 4.6         | 4.4         | 4.4         | 4.3         |
| <b>Expenditure</b>                      | <b>1 741</b> | <b>52.7</b> | <b>51.3</b> | <b>50.0</b> | <b>49.0</b> | <b>48.2</b> |
| Wages                                   | 825          | 25.0        | 24.2        | 23.6        | 23.1        | 22.7        |
| Wages and collective charges            | 484          | 14.7        | 14.3        | 14.0        | 13.8        | 13.5        |
| Consumption                             | 341          | 10.3        | 9.9         | 9.6         | 9.3         | 9.2         |
| Total social security transfer payments | 628          | 19.0        | 18.2        | 17.9        | 17.4        | 17.1        |
| In kind                                 | 120          | 3.6         | 3.7         | 3.7         | 3.7         | 3.6         |
| Transfer payments                       | 508          | 15.4        | 14.6        | 14.2        | 13.8        | 13.5        |
| EDP interest, consolidated              | 23           | 0.7         | 0.9         | 0.9         | 1.0         | 1.0         |
| Subsidies                               | 49           | 1.5         | 1.4         | 1.3         | 1.3         | 1.3         |
| Investment                              | 115          | 3.5         | 3.5         | 3.2         | 3.1         | 3.0         |
| Other expenditure                       | 101          | 3.0         | 3.1         | 3.1         | 3.1         | 3.1         |
| <b>Net lending, EDP</b>                 | <b>-1</b>    | <b>0.0</b>  | <b>0.6</b>  | <b>2.0</b>  | <b>2.9</b>  | <b>3.7</b>  |
| of which, central government            | -8           | -0.2        | 0.5         | 1.9         | 2.8         | 3.6         |
| of which, old-age pension system        | 5            | 0.2         | 0.4         | 0.3         | 0.2         | 0.2         |
| of which, municipalities                | 2            | 0.1         | -0.2        | -0.2        | -0.1        | -0.1        |
| Primary net lending                     | 22           | 0.7         | 1.6         | 3.0         | 3.9         | 4.7         |
| Structural balance                      | 72           | 2.2         | 1.8         | 2.5         | 3.0         | 3.7         |
| Structural primary balance              | 95           | 2.9         | 2.7         | 3.4         | 4.0         | 4.7         |
| Temporary tax revenue                   | -2           | 0.0         | 0.0         | 0.0         | -0.1        | -0.1        |

Sources: Statistics Sweden and own calculations.

**Table C.9 Consolidated gross debt**

Per cent of GDP

|                                  | 2010        | 2011        | 2012        | 2013        | 2014        |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|
| <b>Consolidated gross debt</b>   | <b>39.8</b> | <b>36.8</b> | <b>33.4</b> | <b>28.8</b> | <b>23.7</b> |
| Change in gross debt             | -3.0        | -3.0        | -3.4        | -4.5        | -5.1        |
| Contribution to change           |             |             |             |             |             |
| Primary net lending              | -0.7        | -1.6        | -3.0        | -3.9        | -4.7        |
| Interest, consolidated           | 0.7         | 0.9         | 0.9         | 1.0         | 1.0         |
| Stock flows                      | -0.3        | -0.5        | 0.3         | 0.0         | -0.2        |
| Sale of shares, extra dividends  | -0.3        | -0.7        | -0.8        | -0.7        | -0.6        |
| Allocation of interest and taxes | 0.2         | -0.2        | 0.3         | 0.1         | -0.1        |
| Other                            | -0.2        | 0.4         | 0.8         | 0.6         | 0.5         |
| Nominal GDP growth               | -2.7        | -1.8        | -1.6        | -1.6        | -1.3        |
| Implicit interest                | 1.7         | 2.4         | 2.7         | 3.1         | 3.5         |

Sources: Statistics Sweden and own calculations.

**Table C.10 Net lending by sector**

Per cent of GDP

|                           | 2010 | 2011 | 2012 | 2013 | 2014 |
|---------------------------|------|------|------|------|------|
| General government sector | 0.0  | 0.6  | 2.0  | 2.9  | 3.7  |
| Household sector          | 4.7  | 4.9  | 4.6  | 4.2  | 3.9  |
| Corporate sector          | 1.8  | 0.9  | -0.6 | -1.1 | -2.1 |
| Total                     | 6.5  | 6.4  | 6.0  | 6.0  | 5.5  |

Source: Statistics Sweden and own calculations.

**Table C.11 Household finances**

Percentage change, unless otherwise stated

|  | SEKbn <sup>1</sup> | Percentage change |             |             |            |            |
|--|--------------------|-------------------|-------------|-------------|------------|------------|
|  |                    | 2010              | 2011        | 2012        | 2013       | 2014       |
| Real disposable income <sup>2</sup>              |                    | 1.4               | 4.5         | 3.1         | 2.2        | 1.9        |
| Price index <sup>3</sup>                         |                    | 1.3               | 0.6         | 1.2         | 2.0        | 2.3        |
| Nominal disposable income                        | 1 684              | 2.7               | 5.2         | 4.3         | 4.3        | 4.1        |
| Wage bill <sup>4</sup>                           | 1 345              | 3.0               | 4.4         | 5.3         | 5.5        | 5.1        |
| Other factor income                              | 198                | 0.6               | 4.1         | 5.2         | 5.4        | 5.1        |
| Interest and dividends, net <sup>5</sup>         | 67                 | 0.4               | 1.7         | 0.4         | 0.3        | 0.3        |
| General gov. transfer payments                   | 538                | -0.4              | -0.7        | 2.1         | 2.0        | 2.2        |
| Private transfer payments                        | 70                 | 10.7              | 3.2         | 4.0         | 3.7        | 3.8        |
| Taxes and charges                                | 534                | 1.4               | 1.6         | 5.5         | 5.6        | 5.3        |
| Household saving                                 |                    |                   |             |             |            |            |
| Own saving                                       | 83                 | 5.0               | 5.5         | 4.7         | 3.7        | 2.9        |
| Net saving in pension fund reserves <sup>6</sup> | 110                | 6.5               | 6.2         | 6.3         | 6.4        | 6.5        |
| <b>Total saving ratio<sup>7</sup></b>            | <b>193</b>         | <b>10.8</b>       | <b>11.0</b> | <b>10.3</b> | <b>9.5</b> | <b>8.9</b> |
| Net lending                                      | 156                | 9.2               | 9.6         | 9.0         | 8.2        | 7.6        |

<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> Including premium pension saving.<sup>7</sup> Total saving ratio = own savings and net saving in pension fund reserves (incl. premium pension saving) / (disposable income + net saving in pension fund reserves (incl. premium pension saving)).

Sources: Statistics Sweden and own calculations.

## Appendix D – Distribution of household interest expenditure

*The distribution of interest expenditure is of significance for financial stability.*

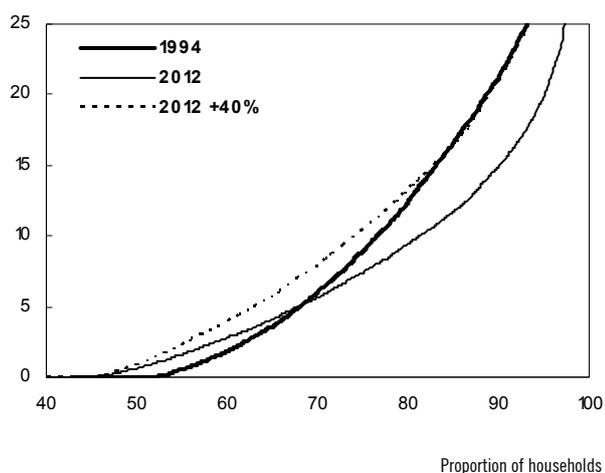
To assess households' future opportunities to bear the ongoing interest expenditure associated with a large burden of debt, it is suitable to study, in part, the situation in a historical perspective compared with today and, in part, what the expenditure will be in a situation with higher interest rates.

Of current households, 46 per cent lack net interest expenditure, while a small number of households have very high interest expenditure. In 2012, only 2.7 per cent of households are expected to have interest expenditure before tax deductions in excess of 25 per cent of their disposable income (see Diagram D.1). This is a markedly lower level than in 1994, when 6.8 per cent of households paid interest exceeding 25 per cent of their disposable income.

A further major difference in 2012 compared with 1994 is that a higher proportion of households will have interest expenditure. If both interest expenditure and interest revenue are taken into account, they will number about 6 percentage points more and, if measured only in terms of interest expenditure, they will be about 10 percentage points more. Consequently, a contributing explanation for the higher aggregate indebtedness is that more households have debts and not simply that households with loans have borrowed larger amounts. This should not entail an increased risk of financial instability.

**Diagram D.1 Distribution of households' net interest expenditure**

Per cent of disposable income



Note: Refers to net interest expenditure before tax.  
Source: Statistics Sweden and own calculations.

In principle, the stability of the financial system requires that not too many households experience problems in bearing their ongoing interest

expenditure. To assess the likelihood of instability as a consequence of the effect rising interest rates have on households' capacity to cope with their ongoing interest payments, calculations have been made whereby net interest expenses are set 40 per cent higher than the forecast level for 2012, at which time the interest level is expected to be largely normal.

The calculations show that the proportion of households with net interest expenditure exceeding 25 per cent of their disposable income would increase from 2.7 per cent to 6.6 per cent. This means that the proportion of households with high interest payments would end up at about the same level as in 1994. Given that the rate of development in the Swedish economy, including household consumption, had gained pace in 1994, the level should not imply a threat to financial stability. Similar assessments, albeit based on other analyses, have been made by the Riksbank and Finansinspektionen. However, problems could arise if housing prices and the debt ratio were to continue rising. It is also important to point out that the financial instability in Sweden in the early 1990s stemmed primarily from the banks' exposure to commercial properties rather than housing.



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