

Sweden's convergence programme

2012



REGERINGSKANSLIET

Government Offices
of Sweden

Sweden's convergence
programme

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Introduction

In accordance with the Council's regulation (EC) 1466/97, Sweden submitted its convergence programme in December 1998.¹ 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 consequently carried out 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 the national reform programme are 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.

Sweden's 2012 convergence programme is based on the 2012 Spring Fiscal Policy Bill (Gov. Bill 2011/12:100) that the Government submitted to the Riksdag on 16 April 2012. The Riksdag's Standing Committee on Finance was informed about the convergence programme on 19 April 2012. The Government approved the convergence programme on 20 April 2012.

The Riksdag's EU Committee was informed of the European Commission's proposals regarding country-specific recommendations for the 2011 convergence programme on 17 June 2011.

¹ The Council's regulation (EC) 1466/97 of 7 July 1997 regarding the reinforced monitoring of public finances and the monitoring of fiscal policy.

1 Economic policy framework and targets

1.1 The fiscal policy framework

The central elements of the fiscal policy framework can, in accordance with the Government Communication (skr. 2010/11:79, bet. 2010/11:FiU42, rskr. 2010/11:316) be summarised as follows.

The role of the fiscal policy framework in the political decision making process

The overarching objective of fiscal policy is to create as welfare as possible by contributing to a high and sustainable level of economic growth and employment (through structural policy), welfare that benefits everyone (through redistribution policy) and stable resource utilisation (through stabilisation policy). Sustainable means economic growth that is achieved without unacceptable consequences for the environment, the climate or people's health. Public finances that are sustainable in the long term represent a basic precondition for the achievement of the overarching objectives of fiscal policy.

Fiscal policy covers several different objectives and means. The conflicts that arise between objectives must be addressed by the democratically elected members of the Riksdag. Fiscal policy design will vary over time depending on the composition of the Riksdag. For this reason, fiscal policy cannot be entirely mechanical. However, there are a number of basic principles that fiscal policy should adhere to for it to be sustainable and transparent in the long term. Combined, these principles form the fiscal policy framework.

The budget policy framework

A core component of the fiscal policy framework is the budget policy framework. The budget policy framework encompasses a surplus target for general government net lending, an expenditure ceiling for the central government's expenditure and the old-age pension system combined with a stringent central government budget process and a balanced budget requirement for local government authorities.

According to the Swedish Budget Act (2011:203), the Government is required to propose a target (surplus target) for general government net lending. The Riksdag has set a surplus target whereby net lending is to amount to 1 per cent of GDP on average over a business cycle. The surplus target's current level is to be maintained over the present term of office and as long as is necessary for the public finances to develop in a direction that is sustainable in the long term.

Surplus target evaluation is mainly forward-looking to assess whether there is scope for reforms or needs for budget reinforcement measures.

Since the economic trend cannot be measured unequivocally, the surplus target is monitored using several different indicators. The follow-up also takes into account the degree of uncertainty in the assessment, the risk that the trend will differ from that forecast and the possibility that the economic cycle may be asymmetrical. Based on these factors, a combined assessment is made of the scope for reforms or the need for budgetary reinforcement measures.

Divergences from the surplus target are to be corrected. However, this cannot be achieved mechanically. In the assessment of when and how a divergence must be corrected, it is necessary to make a combined assessment based on conditions in terms of stabilisation, redistribution and structural policy.

According to the Budget Act, it is compulsory for the Government to propose, in its Budget Bill, an expenditure ceiling for the third additional year. The expenditure ceiling is then set by the Riksdag. An important function of the expenditure ceiling is to provide the conditions necessary for achieving the surplus target. 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, helping prevent a development whereby this must be gradually raised as a result of inadequate expenditure control.

The expenditure ceiling should not be circumvented by benefits normally financed through appropriations being budgeted and reported against revenue items. The main principle should also be that expenses should be recognised in the year in which they are expected to be incurred. Any divergences from these principles should be explained.

According to standard practices, there should be a budgeting margin of a certain scope beneath the expenditure ceiling. This should primarily act as a buffer in the event that expenditure develops in a direction not calculated on the basis of the economic trend.

A well-organised and stringent budget process is of key importance in achieving the budget policy targets. The expenditure ceiling is the overarching restriction that limits the budget process in terms of total expenditure. In the budget process, different expenses are compared against one another and expenditure increases are tested on the basis of a predetermined total financial range determined by the expenditure ceiling and the surplus target. The main approach is that expenditure increases in a particular area of expenditure should be covered through proposed expenditure reductions within the same area.

It is also of central importance that the central government budget is transparent and comprehensive. The Government's budget proposal shall include all revenue and expenditure, as well as other payments that affect the central government's borrowing needs (known as the principle of completeness). The main principle is also that central government revenues and expenditures should be budgeted and reported gross under revenue items and allocations (known as the gross accounting principle).

This means that expenses shall be reported on the expenditure side of the budget, while revenues are to be reported on the revenue side.

The Ministry of Finance has a coordinating role and is responsible for the schedule, guidelines for budget work and the budget negotiation process. However, all ministries are responsible for there being sufficient data available for overarching priorities to be determined between sectors within the general government sector and between different areas of expenditure within the central government budget and for assessing the general government undertaking.

In order to strengthen the budget process at local level, a balanced budget requirement was introduced in 2000 for the local government sector. This stipulates that each individual municipality and county council should budget for a balanced outcome, unless specific conditions prevail. Municipalities and County Councils shall maintain good financial management in their operations.²

Stabilisation policy

The most important contribution made by fiscal policy in stabilising the economy is in upholding confidence in the long-term sustainability of the general government finances. If the financial market, households and companies lose confidence in the general government finances, this will help render less effective active (discretionary) fiscal policy measures intended to have an effect in terms of stabilisation policy. If finances are not sustainable in the long term, the Riksbank's efforts in maintaining price stability will be impeded. Experience shows that periods of high inflation are often preceded by periods of mismanaged general government finances.

When demand in the economy is disrupted, stabilising employment and inflation does not normally entail a contradiction. This means that the economy will normally be stimulated through monetary policy during an economic downturn and restrained during an upswing. In the event of such disruptions, fiscal policy aids economic stabilisation, mainly through the automatic and semi-automatic stabilisers.³ Furthermore, unlike monetary policy, fiscal policy plays a role in

² Effective from 2005, municipalities and county councils shall determine the financial targets that are of importance for good financial management. A common measure is that a result corresponding to 2 per cent of revenues from taxation and general government subsidies meets the requirement for good financial management.

³The automatic stabilisers help mitigate economic fluctuations in that tax revenues automatically reduce (increase), expenditure on unemployment insurance and certain income support automatically increases (decreases) in an economic upswing (downturn). The so-called semi-automatic stabilisers are a hybrid between active decisions and automatic stabilisers. It is primarily different types of labour market policy measures that are generally referred to as semi-automatic stabilisers; that is, active decisions are made regarding a large proportion of these although it is more the rule than the exception that such measures are adjusted to the prevailing economic conditions.

managing specific problems that can arise in the economy in a downturn. This may, for example, involve strengthening labour market policy measures of various kinds and managing different consequences of re-distribution policy. In major disruptions in demand and supply, fiscal policy may be required to provide support for monetary policy. Experiences from managing earlier crises show, however, that a strong economic downturn cannot be counteracted without jeopardising the general government finances. On the other hand, measures can help mitigate the rise in unemployment, decrease the risk of unemployment gaining a lasting hold and alleviating the consequences for particularly exposed groups.

It is important that the stabilisation measures be designed in such a way that they help net lending return to a level in line with the surplus target once resource utilisation normalises. Experience shows that certain temporary stabilisation measures undertaken can be politically difficult to retract. Consequently, such stabilisation measures should be avoided. To avoid stabilisation policy itself becoming a source of longer-term general government finance problems, it is necessary to ensure that any temporary measures implemented remain temporary.

If permanent measures are implemented to mitigate a downturn (on the condition that the scope exists for such measures), these should primarily involve measures that, in the long term, contribute to lasting increases in employment and GDP. It may also be a matter of permanently raising an allocation or transfer by means of re-distribution policy. These examples show that it is neither meaningful nor desirable to take stabilisation policy decisions without, at the same time, weighing in structural and re-distribution policy objectives.

Government interventions in the financial markets

Well-functioning financial markets are also decisive for stable macro-economic development and for effective stabilisation policy. For government interventions in the financial markets to be effective, a clear division of roles between authorities is important and clear rules must be in place regarding how the public finances are to be safeguarded in the event of such interventions.

In financial crises, the Government may need to implement special measures to aid financial stability and to thus prevent the crisis from having a severe impact throughout the economy. If the Government needs to undertake such measures, the point of departure lies in limiting the consequences for the public finances. It is important that it is the credit institutes themselves and, in particular, their shareholders and other contributors of risk capital, who should primarily bear any losses. If the state intervenes in a credit institute experiencing serious financial problems, the Government may, in accordance with the Government Support to Credit Institutions Act (2008:814), temporarily assume ownership of the institute if its financial position is very weak or if the

institute fails to agree to terms for the support that are deemed to be reasonable. When the owners of the institute are aware that the Government has the opportunity to assume ownership and replace the institute's leadership while, at the same time, it is the owners who must bear the losses, their willingness to accept exaggerated risks in the business of the institute decreases.

Openness and clarity

The Spring Fiscal Policy Bill normally details the focus of fiscal and budget policy for the coming years. In the Bill, the Government accounts for its view of the prevailing economic situation, reports the structural, stabilisation and re-distribution challenges facing policy-makers, provides an assessment of a suitable level for the expenditure ceiling for at least a third additional year, follows up on budget policy targets, accounts for the calculated effects of measures and gives an assessment of the current scope for reforms or the need for budgetary reinforcement. The Spring Fiscal Policy Bill usually contains a special account of re-distribution policy and an assessment of the long-term sustainability of the public finances.

In the Budget Bill, the Government presents concrete policy proposals, particularly for the coming budget year, and presents proposals for the expenditure ceiling for at least a third additional year. In addition, an account of economic equality is presented.

The Government's Annual Report follows up both the budget and the fiscal policy targets for the past budget year.

In both the Spring Fiscal Policy Bill and the Budget Bill, forecasts are made for at least three to four years into the future. Forecasts are to be prepared using the best methods available. The effects of measures considered to have a greater macro-economic impact are to be calculated in terms of GDP, employment and income distribution. Forecasts and calculations of effects are to be based on data of the highest possible quality and should be based on current research where possible.

Assessments of the sustainability of the general government finances are to be complemented with generation analyses at regular intervals. Long-term surveys shall also be carried out at regular intervals. These represent an important foundation for the analysis of the future challenges facing fiscal policy.

Swedish Fiscal Policy Council

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.

On 28 April 2011, the Fiscal Policy Council received new instructions with clearer priorities between the Council's various tasks. The

instructions were amended following an agreement between the Government coalition parties, the Social Democratic Party, the Green Party and the Left Party.

The Council will continue to have a broad mandate although priorities between its various tasks were made clearer. The overarching task is to support general government finances that are sustainable in the long term. The Council's mandate will continue to be the following:

- The Council shall analyse how well the Government meets budget policy targets and whether the public finances are sustainable in the long term.
- The Council shall also assess the effects on growth, employment and the distribution of welfare (which is a new assignment) and how the focus of fiscal policy relates to the general economic trend. The Council shall also review the clarity of the Spring Fiscal Policy Bill, particularly in relation to the stated bases for fiscal policy and the reasoning behind proposed measures.
- The Council may also review and assess the quality of the forecasts submitted and the models on which those forecasts are based.

Changes in Sweden's medium-term objective

As a member of the EU, Sweden must meet the regulations on net lending included in the EU's Stability and Growth Pact. In addition to the deficit limit of 3 per cent of GDP, all EU members are required to set up a so-called Medium-Term Objective (MTO). To date, Sweden has chosen to allow its MTO to coincide with its surplus target. According to earlier calculations by the European Commission, Sweden should have an MTO of at least minus 1 per cent of GDP.⁴

To distinguish more clearly between the Swedish national framework and the demands made of Sweden as a member of the EU, the Government will, effective from the 2012 convergence programme, distinguish between the surplus target and the MTO. The MTO will be set at minus 1 per cent of GDP in accordance with the European Commission's calculations. The MTO now chosen by Sweden in the convergence programme should be seen as a minimum requirement for net lending to which Sweden is subject as an EU member, while Sweden has set its own, more ambitious national net lending targets in the form of the surplus target of 1 per cent of GDP.

⁴ See Public Finances in EMU, European Commission, 2007.

1.2 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 adopted 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 trend 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 result of the referendum, which was "no", 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 stands firm. 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.

1.3 The Government's fiscal policy

Government proposals in the Budget Bill for 2012

In the Budget Bill for 2012, the Government chose to prioritise efforts in four areas. To counter the slow-down of the Swedish economy and weaker trend in the labour market, the Government proposed a labour market package including measures for improved mediation of jobs and raised levels of quality and activity in the job and development guarantee and the job guarantee for youth. In addition, a programme of infrastructure investment was proposed for 2012 and 2013. The Government also proposed a number of reforms for sustainably higher growth, employment and strengthened competitiveness. Among other measures, the Government proposed a reduction in VAT for restaurants and catering services. The Government also proposed a broadly targeted package of reforms in the area of education, the principal focus of which is to raise the status of the teaching profession and teachers' competence. To improve conditions for jobs and enterprise, a number of tax measures were proposed, including improvements in the 3:12 rules and measures to facilitate savings in, for example, shares. Publicly financed welfare should benefit everyone and the burdens imposed by the weakened economy should be distributed fairly. Consequently, the Government proposed an increase in the housing subsidy for young people without children and for families with children, as well as an increase in the housing allowance for old-age pensioners. A well-functioning financial system is of key importance for the economy. In its Budget Bill for 2012, the Government proposed new capital adequacy rules demanding increased and higher-quality capital in credit institutes in accordance with the Basel III agreement.

Table 1 shows the combined budgetary effects of the reforms that have been adopted or announced, including how these are financed, in relation to previous years.⁵ The table shows the Government's priorities at an overarching level. The reforms included in Table 1 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.

⁵ The proposals presented in the Spring Adjustment Budget for 2012 (Gov. Bill 2011/12:99) are also included.

Table 1 Changes in expenditure and revenue 2011–2015 reforms adopted, proposed and announced in previous years. Effect on general government net lending

SEK billion. Budget effect in relation to previous year

	2011	2012	2013	2014	2015
Expenditure changes ¹					
Change in ceiling-restricted expenditure ²	-3.1	3.1	-3.8	-4.3	-4.9
Adjustment for differences between the accounting principles in the central government budget and the National Accounts	-7.3	-3.4	-1.1	-0.4	-0.5
of which, support to municipalities and county councils ³	-13.0	0.0	0.0	0.0	0.0
of which, loan-funded infrastructure investments ⁴	0.1	-1.0	-1.9	0.2	-1.1
of which, capital contributions to government-owned companies	3.1	-1.0	1.0	0.0	0.0
Total expenditure changes	-10.4	-0.3	-4.9	-4.7	-5.4
Revenue changes					
Taxes, gross	-6.8	-4.0	-2.9	0.8	1.5
Indirect effects of taxes	-1.0	0.1	1.0	-0.3	-0.4
Other revenue reforms	0.0	0.1	1.2	0.0	0.0
Total revenue changes, net	-7.8	-3.8	-0.7	0.5	1.1
Change in general government net lending⁵	2.6	-3.5	4.3	5.2	6.4

¹ For expenditure reforms, a minus sign reflects a decrease in an appropriation or the cessation or reduction in scope of temporary programmes. For revenue reforms, a minus sign reflects a decrease in tax revenues. For the combined budget effects of expenditure and revenue reforms, a minus sign indicates a weakening in general government finances compared with the preceding year.

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

³ Temporary support totalling SEK 13 billion to municipalities and county councils was disbursed from the central government budget in December 2009 but was intended for use during 2010. Consequently, in the National Accounts, this support is allocated to 2010, which also better reflects the focus of fiscal policy, unlike the central government budget where this support is allocated to 2009. Other central government grants to municipalities and county councils are reported in the same year in the budget and the National Accounts.

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

⁵ Excluding indirect effects of expenditure changes on the revenue side of the central government budget.

Source: Own calculations.

In 2011, general government net lending strengthened somewhat, despite taxes being lowered. This is attributable to the temporary financial support for municipalities and county councils of SEK 13 billion in 2010 being discontinued. Net lending is expected to weaken in 2012, mainly as a consequence of revenue reforms. In subsequent years, net lending will strengthen, primarily as a consequence of ventures on the expenditure side being phased back.

The Government's continued reform ambitions

Central elements in the policy being pursued include nurturing the focus on work and safeguarding general government finances that are sustainable in the long term. The Government's principal objective is to take Sweden towards full employment. Everyone who can work should be able to find a job. Disparities are thus decreased and sustainable financing of common welfare is safeguarded. The path towards full employment entails re-establishing the focus on work and breaking the exclusion from the labour market that had grown over a long time. It

should be more profitable to gain an education and to work, it should be easier to employ people and more companies should be started in Sweden, remain here and grow.

The Government's reform ambitions for its current period of office, which were presented in the 2011 Budget Bill, are implemented where durable scope for reforms arises, when the economic situation permits and on the condition that important reforms in prioritised areas of welfare can be secured.

To reduce exclusion, increase sustainable employment and make it more attractive to get an education, and to start and run a business, the Government wants to further strengthen the in-work tax credit and raise the lower state income tax threshold. When individuals and families get to keep more of their income, their independence and their opportunities to shape their own lives also increases. It is the Government's ambition to continue improving the business climate and the conditions for entrepreneurial activity, investment and employment, for example by reviewing corporate taxation. The Government also intends to come back in 2013 or 2014 with proposals for tax cuts for pensioners, provided that public finances are in balance.

The policy direction in the short run is to manage the effects of the debt crisis. In particular, the focus will be on strengthening the conditions or groups with a weak foothold in the labour market, such as young people, people with a foreign background and other groups with high long-term unemployment, to get to work.

Effects of the Government's policies

The Government's policies are a combination of measures to stimulate supply and demand for labour and to stimulate the matching of job-seekers and vacancies. In addition, the Government has implemented measures to increase employment among groups with a weak foothold in the labour market. The most important reform in strengthening the labour supply is the in-work tax credit, which has strengthened the motivation to work by making work more profitable. If it is more profitable to work, more people will seek participation in the labour market. In the long term, durable employment (that is average employment across an economic cycle) can thus increase. The Government has also implemented changes in unemployment insurance to increase the supply of labour and to shorten periods spent in unemployment.

To reduce illness figures and to increase employment, the Government has also implemented extensive reforms in health insurance intended to strengthen the capacity for work among those on leave due to illness, generate driving forces for work and to strengthen labour demand for those who have been unemployed for a long time, who have been on leave due to illness for an extended period or who have received sickness or activity benefits.

In order that the measures designed to stimulate supply should quickly result in increased employment and reduced unemployment, the Government has also undertaken measures to strengthen the position of, and demand for people with a loose foothold in the labour market. Labour market policy has been realigned. Among other things, the Swedish Public Employment Service has been given a clearer assignment to mediate jobs while labour market policy resources target, to a greater extent, those in greatest need. To make those who have been out of work for a certain amount of time more attractive in the labour market, new start jobs have been introduced.⁶ Other measures to increase demand for those with a weak foothold in the labour market include lowered employers' contributions for young people and seniors. The Government has also introduced the HUS deduction (tax rebate for domestic and home renovation services) to stimulate supply and demand in labour.

In the Government's assessment, the structural reforms implemented in 2006-2012 have durably increased employment by approximately 215 000 people in the long term. Not only do the Government's reforms effect employment – the number of people in work is also expected to rise because fewer people are absent due to illness. In addition, the in-work tax credit encourages those already in work to work more by, for example, switching from part-time employment to full-time. On the whole, the structural reforms implemented to date are judged to durably increase the number of hours worked by approximately 6 per cent in the long term, corresponding to some 243 000 annual full-time equivalents. The in-work tax credit is judged to contribute about half of this increase (see Table 2).

The Government's assessment is based on the research available on the effects of different measures; for example, on how changes in the tax system, social insurance and labour market policy affect the labour supply and employment. However, knowledge about the scope of the effects and, in particular, the pace at which they achieve an impact is far from complete. Consequently, the assessments detailed in Table 2 are uncertain.⁷

⁶ New start jobs serve to stimulate employers to hire an individual who has been outside the labour market for an extended period of time. An employer who hires an individual who has been outside the labour market for more than a year (six months for young people) can qualify for financial support for an amount corresponding to twice the employers' contributions paid by the employer.

⁷ The methods and calculations on which the Government's assessment of the effects of reforms are based are described in greater detail in the report *How should the functioning of the labour market be assessed?*, report 2011:1 from the Economics Affairs Department of the Ministry of Finance.

Table 2 Expected long-term effects of the government's policy 2006-2012

Change in per cent, unless otherwise stated

	Annual full-time equivalents ¹	Employed ²	Labour force	Unemployment ³	GDP
In-work tax credit	120 000	106 000	1.6	-0.6	2.2
Unemployment insurance	39 000	45 000	0.2	-0.7	0.7
Labour market policy	11 000	13 000	0.1	-0.2	0.2
Health insurance	19 000	16 000	0.9	0.5	0.4
HUS deduction	27 000	25 000	0.2	-0.3	0.4
Lowered social security fees	10 000	8 000	0.2	0.0	0.2
Taxation threshold	13 000	0	0.0	0.0	0.3
Lowered VAT on services	6 000	4 000	0.0	-0.1	0.1
Raise housing benefits	-2 000	-2 000	-0.05	0.0	0.0
Total structural reforms	243 000	215 000	3.1	-1.4	4.5

¹ Hours worked recalculated as annual full-time equivalents. One annual full-time equivalent corresponds to 1 800 hours worked.² Number of people in age group 15–74 years.³ Change in percentage points.

Source: Authors' own calculations.

The Government's view on the Council's recommendations in 2011

The Council decision of 12 July 2011 recommended that Sweden:

- pursue a fiscal policy that ensures that the intermediate target continues to be met,
- undertake preventive measures to manage the macroeconomic risks associated with rising house prices and rising household debt. A broad range of measures can be considered, including for example a review of the mortgage system, including capital cover requirements for banks, rent regulation, property taxation, building permits and
- monitoring and improving labour market participation among young people and other weak groups.

The Government welcomes the country-specific recommendations. The recommendations concerning Sweden are largely in line with the Government's own policies. With regard to the first recommendation, the Government shares the view that it is important to ensure that the surplus target for general government finances is met. As a small, open economy, Sweden has been affected by the financial unease that has spread of late. Strong general government finances with generous safety margins and a stable financial system represent important preconditions for being able to mitigate the effects of this financial unease on the Swedish economy, employment and welfare. Net lending is expected to be nearly balanced in 2012 and to show gradually increasing surpluses over the next few years. The Government's view is thus assured that the intermediate target for general government finances will continue to be met.

With regard to the second recommendation, the Government shares the view that preventive policies are important in counteracting the macroeconomic risks associated with a high level of debt among households. An important precondition for being able to counteract such risks is that the financial system should be stable. Sweden has a robust framework for securing stability in the financial system. With regard to the special measures mentioned in the recommendation, it can be mentioned that relaxations that have been implemented in rent regulations and that new rules for non-profit housing companies came into effect on 1 January 2011. Together, these measures will promote competition in the housing market. To further strengthen financial stability, more stringent requirements regarding mortgage ceilings have been introduced. To mitigate risks in credit provision, the Swedish Financial Supervisory Authority issued new rules on mortgage ceilings on 1 October 2010. This means that the degree of collateralisation on mortgages should be less than 85 per cent of the market value of the home. The Government has thus already undertaken key measures in the areas highlighted in the recommendations. To further strengthen the conditions for a well-functioning financial system, the Government proposed in its 2012 Budget Bill that resources for the monitoring of the financial markets be reinforced. The Government has also initiated a process to prepare proposals regarding capital cover rules for the banks, which will provide greater resilience to financial turbulence, etc. In addition, a special study will examine how the fees paid to the previously established stability fund could be set based on the risks assumed by the banks.

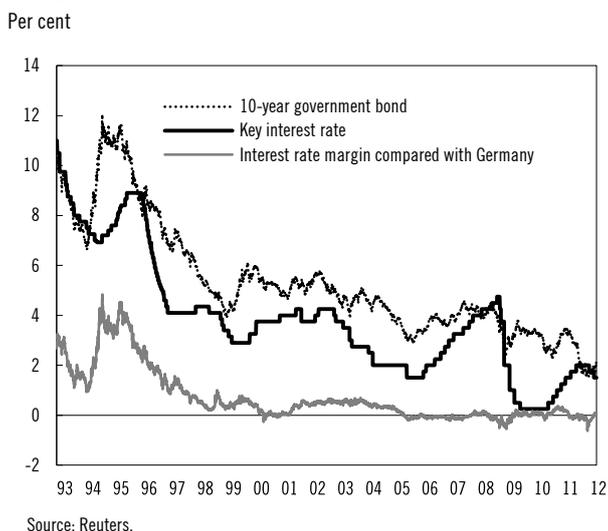
The recommendations regarding employment policy agree well with the Government's policies and the measures it has undertaken. A number of measures have recently been taken in several areas to improve the labour market situation of young people. For example, the introduction of a special job guarantee for young people can be mentioned, as well as lowered employers' contributions for young people and simplified processes for employers when hiring people on a temporary basis. In the 2012 Budget Bill, the Government proposed a number of measures that can be expected to increase employment among young people. Major ventures were proposed to improve the education system. Measures were also proposed to raise quality in the job guarantee for young people. A relatively large proportion of employees in the restaurant sector are young people. The proposal to cut VAT from 25 to 12 per cent on restaurant and catering businesses could thus contribute to increased employment opportunities and decreased unemployment, particularly among young people.

1.4 Monetary policy

Diagram 1 shows the trend in a selection of interest rates in Sweden from 1993 and onwards. Starting in October 2008, the Riksbank cut the repo rate from 4.75 to 0.25 per cent to mitigate the effects of the financial crisis and to soften the decline in the real economy. As the Swedish economy recovered and inflationary pressure began to rise, the Riksbank gradually raised the repo rate in the second half of 2010 and the first half of 2011. In December 2011 and February 2012, the Riksbank again lowered its repo rate to 1.75 and 1.50 per cent respectively.

Interest on ten-year government bonds 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 financial concerns have abated long-term bond rates in Sweden have risen and were at the start of 2012 at a similar level to long-term rates in Germany and the US.

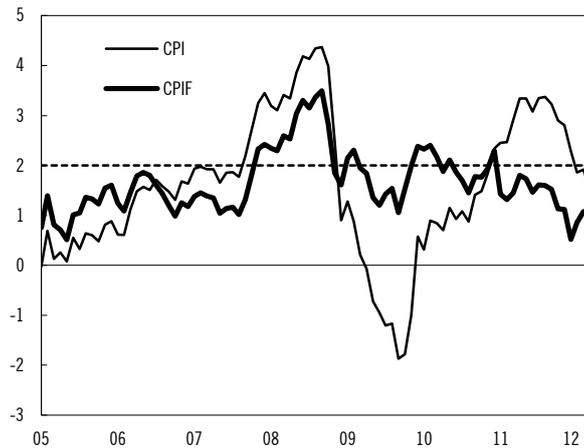
Diagram 1 Interest rates in Sweden



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. From the end of 2010, CPI inflation rose and amounted to 3.0 per cent in 2011. This is largely because interest rates rose substantially in 2010 and 2011. Underlying inflation measured as CPIF (CPI at fixed interest rates) was 1.4 per cent in 2011.

Diagram 2 Inflation measured as CPI and CPIF

Annual change in per cent

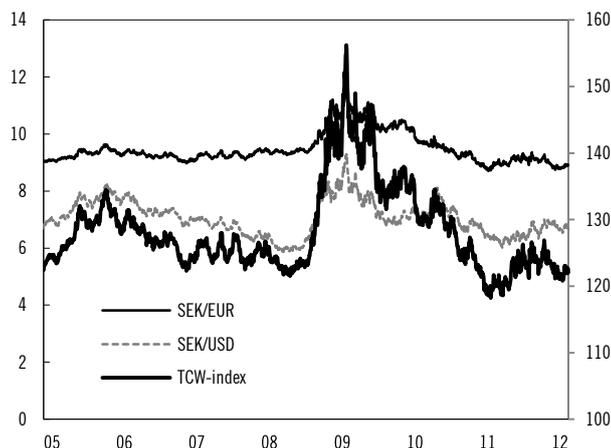


Source: Statistics Sweden.

Sweden has had a floating exchange rate since November 1992. Diagram 3 shows the development of the Swedish krona against the TCW index⁸, the euro and the US dollar in 2005–2012. The uneasy situation in the financial markets caused the krona, like many other small currencies, to weaken 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 3 Development of the Swedish krona against the TCW index, the euro and the US dollar

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



Source: Reuters.

⁸ The TCW index (Total Competitiveness Weights) measures the value of the Swedish krona against a basket of other currencies.

2 Macroeconomic trend

2.1 International and financial economy

Stabilisation on the financial markets

Financial unease was tangible in the autumn of 2011 but has since decreased as a consequence of measures implemented by the European Central Bank (ECB), the EU and countries with pressing central government finance problems. Support measures by the ECB to facilitate the financing of banks have alleviated the financial stress in the bank sector. The risk of a severe credit squeeze has consequently diminished considerably. Increased fiscal policy cooperation within the EU and extensive austerity and reform programmes in several euro zone countries have helped stabilise the financial markets. Financial unease is expected to continue to gradually abate in 2012.

Despite the unease in the financial markets having decreased and measures having been taken to counter the public finance crisis, the international economic trend remains highly uncertain.

In the euro zone, the restructuring of public finances, weak domestic demand and weakened external demand are expected to bring a mild recession in 2012. The restructuring of public finances and the implementation of structural reforms will take time and the effects will not be seen until some time into the future. Consequently, the recovery in the euro zone will be drawn out between 2013 and 2015.

To date, the US economy has been affected to only a relatively minor extent by the public finance crisis in the euro zone. There are clear signs of a strengthening economic trend in the US with, for example, falling unemployment. However, resource utilisation currently remains low and the recovery is expected to be protracted, even though growth is being stimulated by an expansive monetary policy. This partly due to the need for a rigorous consolidation of general government finances in the US. However, political discord in Congress is generating considerable uncertainty regarding the design of future fiscal policy.

The weak economic trend outside Sweden will hold back Swedish growth, particularly in 2012. As the financial markets continue to stabilise and measures are implemented to resolve public finance problems in Europe, concerns among Swedish households and companies are gradually abating.

2.2 Swedish economy

Swedish economy affected by the debt crisis in 2012

The Swedish economy grew very rapidly in 2010 and during most of 2011. Both domestic demand and exports have been important driving forces for the recovery following the financial crisis. Towards the end of

2011, however, growth in the Swedish economy slackened markedly and the economy is expected to clearly weaken in 2012. This is attributable to several interacting factors. The public finance problems, primarily in the euro zone, have led to a sharp decline in demand internationally and thus also to sharply decreasing demand for Swedish export products. Exports declined towards the end of 2011 and indicators suggest a weak increase in exports in early 2012. Household consumption began to abate already in the second half of 2011 as a consequence of, among other things, increased uncertainty regarding the economic trend and the weak development of household wealth. The uncertain economic situation, weak export demand and weak domestic demand have companies holding off on investments.

The weak growth in the Swedish economy is expected to lead to decreased resource utilisation in 2012. Measured in terms of the so-called GDP gap, resource utilisation will decrease from a negative 1.0 per cent in 2011 to a negative 2.7 per cent in 2012. Over the next few years, production and employment can thus rise rapidly without tendencies towards overheating arising. This is due to a combination of the low level of resource utilisation in the economy in 2012 and strong potential growth as a consequence of, for example, the Government's reforms to improve the functioning of the labour market.

As the financial markets continue to stabilise and household concerns abate, household consumption is expected to increase more rapidly from the second half of 2012 and onwards. An expansive monetary policy and gradually brightening prospects will contribute to household consumption rising at a good pace from 2013 to 2015. The economy outside Sweden is also expected to strengthen, contributing to increased growth in exports. As demand and production rise faster, investment needs will be relatively large and investment will thus increase strongly. GDP will rise by an average of about 3.5 per cent annually between 2013 and 2015 and this favourable growth will entail resource utilisation gradually rising. However, the economic downturn will be protracted and it is not until the end of the forecast period that resource utilisation is expected to be normal in the economy as a whole.

Table 3 Selected statistics

Annual percentage change, unless otherwise stated

	2011	2012	2013	2014	2015
GDP	3.9	0.4	3.3	3.7	3.6
GDP gap ¹	-1.0	-2.7	-2.1	-0.9	-0.4
Employed ²	2.1	-0.1	0.3	1.4	1.7
Employment ratio ³	80.0	79.7	79.6	80.5	81.6
Hours worked ⁴	2.3	-0.3	0.5	1.6	1.5
Productivity ^{4,5}	2.4	1.3	3.2	2.3	1.9
Unemployment ⁶	7.5	7.8	7.7	6.9	5.7
Wages ⁷	2.4	3.2	3.1	3.3	3.7
CPI ⁸	3.0	1.2	1.3	1.6	2.5

¹ The difference between actual and potential GDP as a percentage of potential GDP.² 15–74 years.³ According to the EU2020 target, that is, those in employment as a percentage of the population in the age bracket 20–64 years.⁴ Calendar-adjusted.⁵ Business sector productivity.⁶ Per cent of the labour force, 15–74 years.⁷ Measured in accordance with Statistic Sweden's short-term statistics, wages and salaries.⁸ Annual average.

Sources: Statistic Sweden and own calculations.

Labour market weakens

The Government's reforms have laid the foundations for a resilient labour market. The recovery in the labour market has been rapid over the past two years. The number of people in employment has risen strongly. The strong rise in employment has also entailed a decline in unemployment, despite labour force participation having risen tangibly. The past two years' favourable development in the labour market can be explained by both a stronger economic trend and reforms that have strengthened the focus on labour. One sign that the Government's reforms have improved the functioning of the labour market is that labour force participation and the employment ratio have risen in most age groups. However, the debt crisis is weakening this trend and unemployment is rising somewhat. The clearest sign of this is that unemployment remains high. In the fourth quarter of 2011, seasonally adjusted unemployment was 7.5 per cent.

The slow-down in the Swedish economy towards the end of 2011 has already entailed a rapid decline in companies' needs to increase employee numbers. The increase in employment abated towards the end of 2011 and employment is expected to remain in principle unchanged throughout 2012. The slow-down is mainly due to companies not renewing temporary employment contracts and not replacing natural redundancies to the same extent as in recent years. There is not expected to be a wave of termination notices as in 2008 and 2009. At the same time, the labour supply is expected to continue increasing as a consequence of the growing population of employable age. Unemployment is thus expected to increase to 7.8 per cent in 2012.

As demand in the economy gathers pace again, the labour market situation will improve and employment is thus expected to rise rapidly,

particularly in 2014 and 2015. Unemployment is expected to decline to 5.7 per cent in 2015.

The weak trend in 2012 will mainly worsen the situation of those who have been unemployed for some time. The proportion of people in long-term unemployment is expected to rise in 2012. At the same time, long-term unemployment differs considerably between different groups. People born outside Europe, older people and those with only primary and lower-secondary education, for example, are unemployed long term to a greater extent than other groups. For these groups, it will be even more difficult to gain employment as the economy weakens again – partly because an individual's competence tends to decline with the duration of his/her unemployment and partly because long-term unemployment can, in itself, convey a certain stigma. The low level of resource utilisation in the labour market and the slow-down in the economy in 2012 will contribute to the current round of collective wage negotiations resulting in moderate wage increases, even though the wage increases resulting from this round are expected to be higher than those following the 2010 negotiations. As the situation in the labour market improves, wages are expected to rise faster between 2014 and 2015.

The low level of resource utilisation, combined with relatively low unit labour costs, lead to an expectation that underlying inflation will be lower than 2 per cent during most of the forecast period. It is assumed that the Riksbank will lower its repo rate to 1 per cent in the first half of 2012 and that it will then maintain that level for about a year. The repo rate will subsequently be raised in the latter half of 2013 as resource utilisation and inflation pressure rise.

2.3 Potential macroeconomic imbalances

Imbalances in general

The emergence of macroeconomic imbalances in the form of, for example, persistent discrepancies in competitiveness has caused extensive problems for many countries in the wake of the financial crisis. During economically strong years, the favourable supply and low cost of capital caused consumption and investment to rise to levels that were unsustainable in the long term and asset prices to skyrocket. High indebtedness, inefficient allocation of capital and falling asset prices have made it difficult for many countries to generate competitive production.

To safeguard a favourable long-term economic trend, it is desirable to prevent macroeconomic imbalances from arising and, if possible to identify and correct the imbalances that nonetheless occur at an early stage. It is not possible to provide a precise definition of macroeconomic imbalances, but an imbalance reflects an underlying problem in a market with the potential to lead to a sizeable correction that affects the overall social economy. Examples of areas where imbalances can arise are international competitiveness and labour costs, asset prices,

indebtedness, consumption and investment, as well as balances of trade and payments.

Procedures in connection with imbalances

On 14 February, the EU Commission published an initial report on potential macroeconomic imbalances in the member countries. The report contains 10 principal and 18 complementary indicators. The purpose in calculating these indicators is to gain early information on the development of events. The indicators should be viewed neither as political targets or control mechanisms; the indications they provide should be complemented with an in-depth economic assessment of the individual country in which other relevant information is also taken into account. It is first at this stage that it is possible to ascertain whether any imbalances prevail.

Due to threshold values being exceeded for four of the main indicators, Sweden has been the object of an in-depth review. This applies to average values for periods ending in 2010 and involving a high surplus in the balance of trade, declining export market shares, rising housing costs and high private indebtedness.

The EU Commission's in-depth reviews are managed within the framework of the EU's financial controls. If, based on this analysis, the situation is considered unproblematic, no measures are proposed. If, on the other hand, the Commission takes the view that macroeconomic imbalances prevail, proposals for measures to put the problem right will be presented. In this case, these will form part of the package of recommendations presented within the framework of the European semester. If the assessment is that major imbalances prevail, the Commission will recommend that the Council initiates an excessive imbalances procedure (EIP), which represents the corrective part of the new process.

Since the EU Commission has previously noted and requested analyses of Swedish household debt, a brief description of that trend is provided here. Risks in the financial sector and thus also in the banks' provision of credit are areas monitored closely by the Government and in which measures have been implemented in the form of mortgage ceilings, for example.

Household borrowing

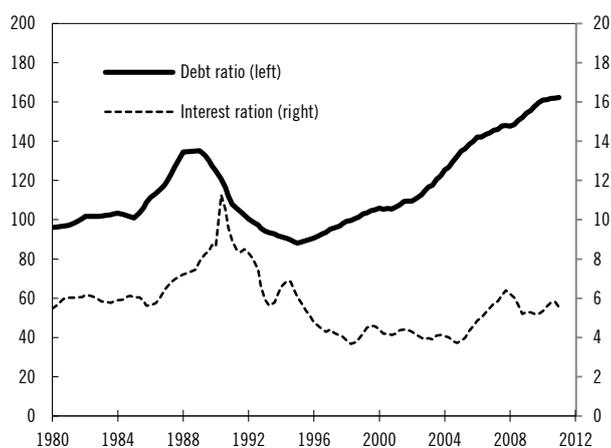
In parallel with rising housing prices, household indebtedness has increased (see Diagram 4). At an aggregate level, the trend can be described in terms of the debt ratio (outstanding debt in relation to disposable income) and the interest ratio (interest payments after tax in relation to disposable income). Despite the debt ratio being at a historically high level, the interest ratio is close to the average for the

past 30 years. A situation with lower interest rates has thus entailed households being able to carry greater debt without this excluding opportunities for other consumption or for net lending.

In 2011, the increase in household debt amounted to 1 percentage point, the lowest annual rate of increase since 2000. This could be a sign that households generally consider their debt to be appropriate in relation to their income. However, the scope for alternative interpretations is extensive. It could also be the case that it has become more difficult for households to borrow money.

Diagram 4 Households' debt and interest ratios

Percentage of disposable income



Sources: Reuters, Statistics Sweden and own calculations.

Note: The interest ratio is calculated based on the benchmark for Swedish five-year mortgage bonds, plus an interest margin of two percentage points and less tax deductions for interest expenses. The increase in 1991 is mainly explained by the value of household interest deductions declining from an assumed average of 50 per cent to 30 per cent.

To be able to assess whether household indebtedness represents an imbalance, it is suitable to consider households' opportunities to durably carry the on-going interest expenditure and any amortisation demands. In the updated convergence programme for 2011, it was shown that very few households have high interest expenses and that these remain moderate even when the interest level is more normal. For 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, which is markedly lower than in 1994 when the corresponding number was 6.8 per cent of households.

At the start of 2012, the Swedish Financial Supervisory Authority published a study of the effects of the mortgage ceiling that had been introduced on 1 October 2010. The effects of the mortgage ceiling were analysed on the basis of data provided by the banks. One conclusion is that households' degree of collateralisation for new loans has decreased. Furthermore, the Swedish Financial Supervisory Authority has conducted stress tests to observe households' sensitivity to interest rate hikes, decreased income and falling housing prices. Based on these, it was concluded that most households having secured new mortgages have a

good repayment capacity and are resilient to interest rate hikes. The Swedish Financial Supervisory Authority interprets the results as suggesting that Swedish mortgages are not currently a threat to financial stability.

3 General government finances

3.1 Accounting principles

This section details the forecast for the public finances given in the 2012 Spring Fiscal Policy Bill (Gov. Bill 2011/12:100). As in the Spring Fiscal Policy Bill, general government net lending is reported according to the EU's regulations for the National Accounts (ESA 95). Revenue and expenditure are consequently reported in the established formats applied for some time 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 monitoring general government finances in connection with the Excessive Deficit Procedure (EDP) and the Stability and Growth Pact (SGP).⁹ Table 4 shows the general government finances according to ESA 95 and EDP. A detailed account of general government finances according to EDP is provided in Table C.2a in Appendix C.

⁹ In the calculation according to the convergence criteria, somewhat different rules apply than those used in the National Accounts. In the calculation of net lending, so-called swaps (interest on debt-exchange agreements) and forward rate agreements (FRAs) shall be included in the interest, which is not the case in the ordinary calculations. Gross debt is calculated at nominal value, since this is the amount to be paid when the debt matures. In the ordinary financial accounts, debt is marked to market, corresponding to the value at which it can be rescheduled. In addition to the above, there are currently certain minor differences compared with the ordinary financial accounts.

Table 4 General government finances according to ESA 95 and EDP

Per cent of GDP

	2011	2012	2013	2014	2015
ESA 95 and SFPB12					
Revenue	49.6	50.1	49.7	49.4	49.5
Expenditure	49.5	50.4	49.3	47.8	46.5
Net lending	0,1	-0.3	0.3	1.6	3.0
EDP and SGP					
Revenue	51.4	51.7	51.2	50.8	50.8
Expenditure	51.1	51.7	50.7	49.1	47.8
Net lending	0.3	-0.1	0.5	1.7	3.0

Note: SFPB12 = 2012 Spring Fiscal Policy Bill.

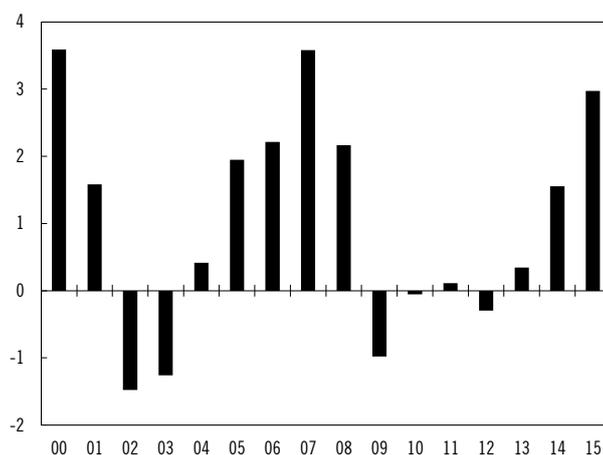
Sources: Statistics Sweden and own calculations.

3.2 The development of public finances

The Swedish economy has weathered well the financial and economic crises that began in 2008, 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 just 1 per cent of GDP, which was a smaller deficit than that caused in 2002 and 2003 by the relatively mild economic downswing in the early 2000s (see Diagram 5).

Diagram 5 General government net lending, 2000–2015

Per cent of GDP



Sources: Statistics Sweden and own calculations.

The recovery in the economy contributed to the deficit in net lending declining to 0.1 per cent of GDP in 2010 and by 2011 there was a surplus of 0.1 per cent of GDP in net lending. The improvement in the general government finances between 2009 and 2011 was due to expenditure decreasing more than revenue as a percentage of GDP.

Table 5 General government finances

Per cent of GDP, unless otherwise stated

	SEKbn					
	2011	2011	2012	2013	2014	2015
Revenue	1 735	49.6	50.1	49.7	49.4	49.5
Taxes and charges	1 546	44.2	44.7	44.5	44.4	44.4
Household direct taxes	534	15.3	15.6	15.5	15.5	15.6
Corporate direct taxes	120	3.4	3.3	3.4	3.4	3.5
Employers' contributions	415	11.9	12.1	12.0	12.0	12.0
Indirect taxes	476	13.6	13.7	13.7	13.5	13.4
Capital income	74	2.1	2.1	2.0	1.9	2.0
Other revenues	116	3.3	3.3	3.2	3.1	3.1
Expenditure	1 731	49.5	50.4	49.3	47.8	46.5
Transfer payments	649	18.6	19.0	18.6	17.9	17.3
Consumption	928	26.5	26.9	26.4	25.8	25.3
Investment	113	3.2	3.2	3.1	3.0	3.0
Interest expenditure	42	1.2	1.2	1.2	1.1	0.9
Net lending	4	0.1	-0.3	0.3	1.6	3.0
Primary net lending	46	1.3	0.9	1.5	2.6	3.8
Consolidated gross debt	1 341	38.4	37.7	35.4	31.8	27.5
Net debt	-643	-18.4	-17.9	-17.6	-18.3	-20.3

Sources: Statistics Sweden and own calculations.

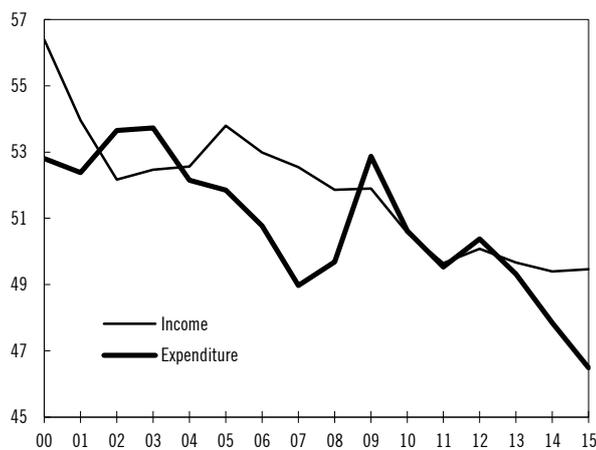
The economic slow-down in the immediate future will lead to a weakening of net lending and for 2012; this is estimated to amount to a deficit of 0.3 per cent of GDP. When growth gathers pace again, net lending will improve and for 2015 a surplus of 3.0 per cent of GDP is expected. This strengthening is mainly taking place through expenditure decreasing as a percentage of GDP (see Table 5 and diagram6).

Revenues increase in pace with GDP

In 2011, revenues decreased relatively strongly in relation to GDP. This is partly due to the tax reduction for pensioners through the raised basic allowance but also to the fact that pensions and other taxable transfer payments decreased in relation to GDP. In 2012, tax revenue will increase somewhat as a proportion of GDP as a consequence of the wage bill and pensions increasing more than GDP. In 2013–2015 tax revenue will increase in pace with GDP (see Table 5).

Diagram 6 General government sector revenue and expenditure, 2000–2015

Per cent of GDP



Sources: Statistics Sweden and own calculations.

Expenditure decreases as a Proportion of GDP

In 2011, expenditure amounted to 49.5 per cent of GDP, which is a decline of approximately 1 per cent compared with 2010. The slow-down in growth contributes to the increase in the expenditure ratio for 2012. When growth subsequently gathers pace, the expenditure ratio will decrease again. Since revenues as a percentage of GDP are largely unchanged as of 2013, it is 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 tax revenue to rise in pace with GDP while expenditure declines as a proportion 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 across the forecast period will also bring a decrease in unemployment expenditure.

The increase in the expenditure ratio for 2012 can mainly be attributed to general government consumption which will increase in volume by 0.5 per cent and to income pensions that will be raised again following the cuts in 2010 and 2011. Between 2013 and 2015, a restrained development in general government consumption will lead to this decreasing as a proportion of GDP. Transfer payments will also decrease as a proportion of GDP. Transfer payments related to illness, which have declined over a period of several years, are expected to continue declining as a percentage of GDP. Together with gradually higher interest rates, decreased central government debt will entail expenditure being calculated as nominally unchanged between 2012 and 2014. In 2015, interest expenses are expected to decrease as a proportion of GDP (see Table 5).

Strengthening of net lending is achieved at the central government level

The strengthening of the general government sector's finances from 2012 will take place at the central government level (see Table 6). The

old-age pension system is expected to have a minor surplus in 2012, although this will become a deficit in 2013. The finances of the old-age pension systems are subsequently judged to be in balance. Over the forecast period, the local government sector reports a small deficit in net lending but positive results in accordance with the accounting principles applied with regard to the local government balanced budget requirement (see further in Section 3.7).

Table 6 Net lending and the central government budget balance

Per cent of GDP

	2011	2012	2013	2014	2015
General government net lending	0.1	-0.3	0.3	1.6	3.0
Central government	-0.1	-0.3	0.7	1.7	3.1
Old-age pension system	0.5	0.2	-0.2	0.0	0.0
Local government sector	-0.3	-0.2	-0.1	-0.1	-0.1
Central government budget balance	1.9	0.3	0.9	2.3	3.0
Central government debt	30.8	31.1	28.7	25.0	20.7

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

3.3 Net financial wealth and consolidated gross debt

General government consolidated gross debt decreases nominally

The consolidated gross debt, “Maastricht debt” is defined by the EU regulations and is used in the assessment of the member states’ general government finances. For Swedish conditions, the definition implies that the debt consists 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 and amounted to SEK 1 341 billion at the close of 2011. The debt has thus increased by SEK 125 billion, despite the surplus in net lending accumulated between 1995 and 2011 amounting to SEK 146 billion. This is mainly due to the fact that the surpluses in the National Swedish Pension Funds have been invested in shares and other assets while the Funds have decreased their holdings of government bonds.

As a proportion of GDP however the debt has decreased considerably and amounted at the end of 2011 to 38.4 per cent of GDP, which can be compared with the reference value for the EU of at most 60 per cent of GDP (see Table 5).

The general government sector’s net lending is strengthening

In 2011, the general government sector’s financial wealth amounted to SEK 643 billion, corresponding to 18.4 per cent of GDP. In the National Accounts, this measure is reported excluding the central government’s

and most of the local government sector's commitments regarding defined-benefit pensions. Nor are the liabilities for the consolidated defined-contribution service pensions, like the premium pension system, included in the general government sector, but are instead reported in the insurance sector.

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. Financial wealth decreased by the equivalent of 2.5 per cent of GDP in 2011. Of the decrease, value changes, etc. contributed 1.8 percentage points. The relatively strong increase in GDP reduced wealth as a proportion of GDP by 1 percentage point.

Wealth will continue to decrease in relation to GDP in 2012 and 2013. For 2012, wealth will also decrease nominally as a consequence of the deficit in net lending. For 2013, the surplus in net lending will be insufficient to offset the negative effect on wealth as proportion of GDP as a consequence of GDP increasing. Between 2014 and 2015, the contribution of net lending to net wealth as a proportion of GDP will be greater than the negative contribution from GDP. For 2015, financial wealth is calculated to amount to SEK 832 billion, corresponding to 23.1 per cent of GDP.

Between 2011 and 2015, financial wealth is expected to increase by SEK 190 billion, which largely follows the accumulated net lending. The forecast includes no other value changes beyond the effects of predicted currency exchange fluctuations on central government debt.

3.4 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. Consequently, there is good cause to formulate a net lending target as an average across an economic cycle.

However, the formulation of the target makes it more difficult to evaluate on an annual basis whether fiscal policy is in line with the target. The surplus target is evaluated in a retroactive perspective to ascertain whether it was achieved during the period in which it steered fiscal policy. It is also analysed prospectively as a basis for the assessment of future scope for reforms or the need for savings.

The purpose of the retroactive analysis is to assess whether the surplus target has been achieved or if there are systematic error

tendencies in the relationship between fiscal policy and the surplus target which decrease the likelihood of the target being achieved in the future. For the retroactive review, a ten-year average is applied, calculated for the ten most recent years for which outcome data on net lending are available, currently 2002–2011. The assessment of this average also takes into account the average economic situation, expressed as a GDP gap, over the relevant historic 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 in a normal economic situation. In the government’s calculation of the structural balance, net lending is adjusted to the current economic situation and for major one-off effects and extraordinary levels in households’ capital gains. The seven-year indicator is a seven-year moving average for net lending in the general government sector. The indicator for a given year includes the net lending (adjusted for major one-off effects) for that year, the three immediately preceding years and the three immediately following years. To a certain extent, the indicator takes the economic situation into account since it represents an average over several years. Nonetheless, there is a risk that the calculation will include more inflationary than recessionary years, or the reverse, meaning that the indicator would give an inaccurate picture of the scope for reforms or of the need for savings. To correctly assess the seven-year indicator, the economic situation must therefore be taken into account.

There is a considerable degree of uncertainty surrounding the indicators used to follow up the surplus target. Since the target is formulated as an average over an economic cycle, the analysis must nonetheless take the economic situation into account, despite the difficulties this entails. For this reason no single indicator is used to determine the scope for reforms or the need for savings. Instead, a collective assessment is made of the two indicators (the seven-year indicator and the structural balance) taking into account the current economic situation and the risk that the trend will differ from the forecast.

Calculation of the structural balance is associated with a high level of uncertainty besides the uncertainty associated with the net lending forecast. Firstly, the assessment of resource utilisation is uncertain. For GDP no potential outcome is ever reported – instead, each evaluator makes his/her own estimation of its historic and future values. The view of the GDP gap is frequently revised both retroactively and prospectively, due not only to a changed view on the economic situation but also to revisions of outcome statistics for actual GDP. Secondly, 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 longer period of time. However,

each fluctuation in the economic trend displays characteristics that make it deviate from the average historic trend. For example, an increase in demand in the economy led by exports, results in a smaller increase in tax revenues than a commensurate increase in demand due to increased private domestic consumption. The sensitivity of the general government finances to the economic trend can also be affected by structural reforms, although this is not reflected in historic temporal data series. At the same time, this means that assessments of the structural balance are uncertain and that different assessments made at a single point in time can vary relatively widely both for past and future years.

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

Per cent of GDP, unless otherwise stated

	2011	2012	2013	2014	2015
Net lending	0.1	-0.3	0.3	1.6	3.0
Retrospective ten-year average	0.7				
Adjusted for economic situation ¹	1.2				
Seven-year indicator	0.4	0.5	1.2		
Adjusted for economic situation ¹	1.6	1.8	2.0		
Structural balance	0.7	1.2	1.6	2.1	3.2
GDP gap, per cent of potential GDP	-1.0	-2.7	-2.1	-0.9	-0.4
Retrospective ten-year average	-0.9	-1.1	-1.1	-1.2	-1.1
Seven-year moving average	-2.2	-2.3	-1.4		

¹ The cyclical adjustment is made by decreasing the indicator's value by the GDP gap during the corresponding period multiplied by an elasticity of 0.55.

Sources: Statistics Sweden and own calculations.

Ten-year retrospective average

In 2002–2011, general government net lending corresponded to an average 0.7 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 1.2 per cent of GDP.

This outcome indicates that net lending has, on average, been in line with the surplus target over this period when taking the average economic situation into account. The conclusion is that the retrospective analysis does not indicate any systematic errors in the focus of fiscal policy that would affect the achievement of targets in the future.

Seven-year indicator

The seven-year indicator is 0.5 per cent of GDP in 2012 and then rises to 1.2 per cent of GDP in 2013. In the calculation of the seven-year indicator for 2013, only two years' outcome data are included. If resource utilisation in each seven-year period is taken into account, the indicator reflects net lending that is 1 percentage point above the target. This is because the seven-year moving average for the GDP gap over the same period was 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 current recession will probably not be matched by equally large positive gaps in the years following the forecast period. From Table 7, it can be seen that the GDP gap over a retrospective ten-year period varies between -1.1 and -1.2 between 2012 and 2015. For this reason, the value of the cycle-adjusted seven-year indicator should not be taken fully into account. A combined assessment of the unadjusted and cyclically adjusted seven-year indicator suggests that net lending such as in 2012 is in line with the surplus target while that for 2013 is somewhat over.

Structural balance

The structural balance is 1.2 per cent of GDP in 2012 and then rises in 2013–2015 (see Table 7). Also this indicator suggests that net lending will somewhat exceed 1 per cent of GDP for 2012 and that it will continue to increase in the subsequent years. The structural balance amounts to 1.6 per cent of GDP in 2013 and to 2.1 and 3.2 per cent of GDP for 2014 and 2015 respectively. Compared with the assessment in the 2012 Budget Bill, potential GDP and thus net lending have been revised down by a relatively large extent for all years after 2010. One reason that the structural balance gradually strengthens over the years following 2012 is that no new fiscal policy decisions are taken into account in the calculation of the structural balance over that period. There is, however, considerable uncertainty in an assessment that stretches over such a long temporal horizon.

Overall assessment

All indicators used to follow up the surplus target suggest that net lending is currently in line with, or somewhat above, the surplus target – the latter being particularly true of the latter portion of the forecast period. The indicators also suggest that Sweden's MTO of -1 per cent of GDP will be met during the forecast period.

3.5 Effects of fiscal policy on demand

The change in actual net lending provides a measure of the general government sector's effects on demand. The change can be divided into three underlying factors: automatic stabilisers, discretionary fiscal policy and other factors affecting the balance. The change in the structural balance is generally used as an indicator of fiscal policy stance. As can be seen in Table 8, this indicator encompasses not only discretionary fiscal policy in the central government budget but also other factors that affect the balance. This may involve changes in the local government sector's net lending, for example due to changed municipal tax levies, and effects on general government net lending from structural changes in the economy.

Table 8 Indicators for stimulating demand

Annual change, per cent of GDP

	2012	2013	2014	2015
Net lending	-0.4	0.6	1.2	1.4
Automatic stabilisers	-1.0	0.3	0.7	0.3
One-off effects	0.0	0.0	0.0	0.0
Extraordinary capital gains	0.0	0.0	0.0	0.0
Structural balance	0.5	0.3	0.5	1.1
Discretionary fiscal policy ¹	0.0	0.1	0.1	0.1
Capital income, net	0.0	-0.1	0.0	0.3
Local government finances	0.1	0.1	0.0	0.0
Other	0.5	0.3	0.4	0.7
GDP gap, change in percentage points	-1.7	0.5	1.2	0.5

¹ Refers to expenditure and revenue changes between 2012 and 2015 in relation to reforms adopted, proposed and announced in previous years.

Sources: Statistics Sweden and own calculations.

In 2012, resource utilisation is expected to decrease and the negative GDP gap to increase by the equivalent of 1.7 per cent of potential GDP (see the last line in Table 8). A weakening of this kind normally weakens the general government finances by the equivalent of approximately 1.0 per cent of GDP (see the second line of the table). This is the effect of the automatic stabilisers. The difference between the change in net lending and the net effect of the automatic stabilisers, one-off effects and extraordinary capital gains corresponds to the change in the structural balance. The change in the structural balance has a somewhat constricting effect on the economy since it is strengthened by 0.5 per cent of GDP in 2012 and by 0.3 per cent of GDP in 2013. The discretionary fiscal policy in the central government budget (line 6 in Table 8) makes no contribution to the change in the structural balance in 2012 and a very weak restrictive contribution in 2013, while the Other item is weakly restrictive for both of those years. The contribution by the latter item is partly due to general government revenue being more strongly linked to growth than general government expenditure, since part of the expenditure is not fully indexed to growth.

3.6 Monitoring of the expenditure ceiling

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. In principle all expenditure in the central government budget is subject to the expenditure ceiling, with the exception of interest. On the other hand, expenditure for the old-age pension system is included in the expenditure ceiling 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 expenditure ceiling and the ceiling-restricted expenditure represents the budgeting margin.

In the 2012 Budget Bill, the Government proposed the expenditure ceiling for 2015. The resolution of the Riksdag was in line with the Government's proposal. According to the Budget Act, it is compulsory for the Government to propose an expenditure ceiling for the third additional year. In the 2012 Spring Fiscal Policy Bill, the Government presents an assessment of the expenditure ceiling for 2016 as an instrument to support the general government finances to develop in line with the surplus target.

It is the Government's assessment that the budgeting margin below the expenditure ceiling for 2012-2015 is sufficient to manage the uncertainty in the expenditure trend. For 2012, the budgeting margin is calculated to be SEK 55 million (see Table 9). The margin is somewhat lower in 2013 and 2014 but then rises to SEK 59 billion in 2015.

Expenditure below the expenditure ceiling rose relatively slowly in 2011. An explanation for this is that expenditure in the old-age pension system decreased compared with 2010 as a consequence of a moderate rate of increase in the income index and the balancing of the old-age pension system. Consequently, the budgeting margin grew to a relatively high level in 2011. Partly as a consequence of the widening budgeting margin, the Government has previously proposed levels for the expenditure target for 2013 and 2014 for which the annual rate of increase is lower than the average annual increase since 1997 when the expenditure ceiling was introduced. For 2015 too, the Government proposed a level for the expenditure ceiling entailing a smaller annual increase than in previous years.

Table 9 Expenditure ceiling 2010–2015

SEK billion, unless otherwise stated

	2010	2011	2012	2013	2014	2015
Expenditure ceiling	1 024	1 063	1 084	1 093	1 103	1 123
Per cent of GDP	30.7	30.4	30.6	29.5	28.4	27,5
Ceiling-limited expenditure	986	989	1 029	1 043	1 052	1 064
Per cent of GDP	29.6	28.3	29.1	28.2	27.0	26.0
Budgeting margin	38	74	55	50	51	59
Per cent of GDP	1.1	2.1	1.6	1.4	1.3	1.4

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.

3.7 Monitoring good financial management and the local government balanced budget requirement

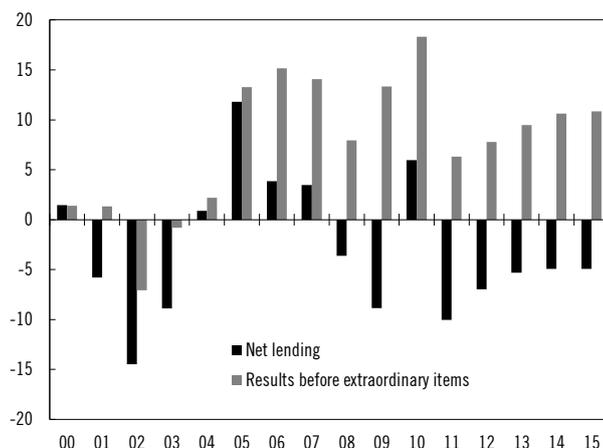
The surplus target for the general government finances also includes the local government sector's net lending, that is, by municipalities and county councils. However, no specific target has been expressed for the local government sector's net lending.

The surplus target for general government finances is expressed in terms of net lending as defined in the National Accounts. The outcome, not net lending, determines whether municipalities and county councils comply with the requirements of the Swedish Local Government Act (1991:900) for a balanced budget. According to this requirement all municipalities and county councils shall prepare budgets in which revenues exceed expenditure. In exceptional cases, if particular reasons exist, deviations from the balanced budget requirement may be made. However, a negative result in the closing accounts must be redressed within three years unless exceptional reasons exist. This requirement represents the lowest acceptable short-term outcome.

Between the local government accounts and the National Accounts, there are discrepancies in terms of accounting methods that may amount to several billion kronor for a particular 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 be affected by the amortisations.

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

SEK billion



Sources: Statistics Sweden and own calculations.

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 the financial targets that are of importance for good financial management. A common measure is that a result corresponding to 2 per cent of revenues from taxation and general government subsidies meets the requirement for good financial management. 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.

The results trend in the local government sector

For 2011, the local government sector reported a preliminary result before extraordinary items of SEK 6 billion (see Diagram 7). The result is considerably weaker than in 2010, which is largely explained by the one-off effect of the discount rate for pension expenses have been adjusted down. The reported cost increase resulting from the lower interest rate amounts to approximately SEK 2 billion for the municipalities and approximately SEK 6 billion for the county councils. Adjusted for this effect, the results for the local government sector as a whole were in line with the target value for good financial management.

3.8 Central government guarantees

A central government guarantee undertaking entails the central government providing a surety for someone else's payment commitment. This incurs a financial risk for the central government. General rules for the

management of central government guarantees are included in legislation and regulations.

According to the Budget Act, the Government may issue credit guarantees and enter other similar commitments for that purpose and not exceeding the amount determined by the Riksdag. A guarantee charge is to be imposed corresponding to the central government's risk and other costs for the commitment, unless the Riksdag decides otherwise. The charges shall cover the expected costs associated with the guarantees, consisting of expected losses (or possible recoveries) in those cases where the beneficiary of the guarantee is unable to meet his/her commitments and administration costs. In this way, the guarantee operations are expected to be self-financing in the long term. This principle in the provision of guarantees is known as the "government guarantee model". Examples of major guarantee commitments covered by the guarantee model are export credit guarantees and credit guarantees for infrastructure projects. Alongside the Budget Act, there are guarantees that are regulated by specific acts. The deposit guarantee, investor protection programme and bank guarantee programme are all examples of guarantees managed outside the guarantee model.

In connection with financial crisis gathering pace in the autumn of 2008, the Riksdag and the Government decided on measures to secure the financial system. Several of these measures involved guarantees and led to a significant increase in the central government's guarantee commitments.

Composition of the guarantee portfolio

Table 10 provides a summary of the guarantees and pledges issued by the Government and various agencies. The central government's guarantee portfolio amounted to SEK 1 595 billion at the close of 2011. The largest commitment is the deposit guarantee (SEK 1 139 billion as per 31 December 2010) followed by credit guarantees and guarantees for capital injections. Pension guarantees, including other guarantees, total SEK 10 billion.

Table 10 Central government guarantee commitments and pledges, 31 December 2011

SEK billion

	Guarantees	Pledges	Area of expenditure
Deposit guarantee ¹	1 138.5		2 National economics and treasury management
Investor protection programme ²			2 National economics and treasury management
Credit guarantees	334.8	138.4	
of which			
Bank guarantees	90.7		2 National economics and treasury management
Export credit guarantees ³	210.4	133.8	24 Industry
Credit guarantees in foreign aid	1.0	0.1	7 International assistance
Independent guarantees	0.2	2.6	7 International assistance
Infrastructure	22.3		22 Communications
Housing credits	2.2		18 Social planning, housing, construction and consumer policies
International commitments	6.3		2 National economics and treasury management 7 International assistance
Automotive industry	1.7	1.9	24 Industry
Other	0.0		6 Defence and emergency management 23 Agriculture, forestry, fisheries etc. 5 International cooperation
Guarantees for capital injections	111.8		
of which			
Capital cover guarantees ⁴			22 Communications
Subscription guarantees	0.4		22 Communications
Guarantee capital	111.4		2 National economics and treasury management 7 International assistance
Other	0.0		
Pension guarantees⁵	8.3		2 National economics and treasury management 24 Industry
Other guarantees	1.6		
of which			
Guarantees for public enterprises, etc.	1.6		
Total	1 595.1	138.4	

¹ The commitment for the deposit guarantee applies to 31 December 2010.

² For the investor protection programme details are lacking regarding the scope of the protected assets.

³ Refers to both bound and unbound pledges.

⁴ There are two capital cover guarantees for which no values are estimated since the guarantees are not limited in terms of time and amount.

⁵ The commitment for pension guarantees applies for 31 December 2010.

Source: National Debt Office.

Expected costs in the central government's guarantee portfolio

As a measure of the risk in guarantee commitments managed according to the guarantee model, the agencies issuing the guarantees continuously assess the expected losses. The agencies make provisions for the expected costs on the debt side of their balance sheets. The expected costs consist of expected losses and administrative costs for managing the guarantees. The deposit guarantee, the investor protection programme and the bank guarantees are not regulated in the Budget Act but by specific legislation. Consequently no assessment or provision is made for the expected loss.

To be able to assess how well the guarantee operations are expected to be able to manage future disbursements, an analysis is made of the relationship between provisions for expected costs to the assets available in the form of paid-in and future guarantee fees in meeting future disbursements and administrative costs.

The debt and asset sides of the guarantee operations are compared in Table 11. Although the comparison is made at the agency level, the deposit guarantee, investor protection programme, bank guarantees and guarantee capital for the international financing institutes are not included, since the expected costs for these guarantees have not been assessed.

Table 11 Comparison between provisions for expected costs and assets in the guarantee operations as per 31 December 2012 (excluding the deposit guarantee, investor protection programme, bank guarantee and guarantee capital)

SEK billion

Agency	Guarantee commitment	Provisions for expected costs	Guarantee assets	Current value of future fees
National Debt Office	39.0	1.1	2.3	0.3
Swedish Export Credits Guarantee Board	218.7	8.0	23.6	3.3
Sida	3.9	0.2	1.8	0.1
Swedish National Housing Credit Guarantee Board	2.2	0.2	2.2	0.0
Total	263.8	9.5	29.9	3.7

Source: National Debt Office.

4 Alternative scenarios and comparison with Sweden's convergence programme for 2011

This section discusses possible risks in the main scenario for development of the macro-economy and the public finances presented in section 2 and 3. In addition, two alternative scenarios for the development of the Swedish economy are presented.

4.1 Alternative scenarios

The risk of a weaker trend had decreased but still dominates.

There is considerable uncertainty regarding the future economic trend and there are clear risks that actual development could be weaker or stronger. On the whole, however, the risk that development will be weaker is judged the more likely, even though it is also thought to have abated somewhat since the 2012 Budget Bill was published in September 2011.

A risk that has lessened in early 2012 is the concern regarding the European banks' opportunities to secure financing through the financial markets. The ECB's measures, including low-interest three-year loans, have tangibly reduced the risk that public finance problems will spread to the bank sector.

In most euro zone countries, however, the underlying problems still prevail, with high debt levels and low potential growth. There is a risk that the consolidation of fiscal policy will not durably reduce public finance deficits and that the negative effects of the necessary fiscal austerity measures will be greater than assumed in the principal scenario. In the US, there is also considerable uncertainty regarding the timing and scope of future fiscal austerity measures and how they will affect the economy. If development is weaker in both the euro zone and the US than assumed in the principal scenario, this could lead to a substantially more protracted upswing in the international economy, and thus also in Sweden. In alternative scenario 1 below, a more detailed description is provided of how a weaker international economy would affect Sweden

There are clear possibilities that the Swedish labour market trend could either improve or worsen. On the downside, there is a risk that the current slow-down in the Swedish economy will have greater permanent effects on the labour market. This would have the effect that groups who currently stand well outside the labour market will not be able to break into the labour market and that more people will therefore exit the labour market permanently. There are also indications that matching in the labour market has worsened of late. If this is due to structural factors

it could result in equilibrium unemployment being higher than what is assumed in the principal scenario.

At the same time, it is possible that the Government's policies have greater positive effects on the labour market than forecast. The employment ratio has risen among most age groups and the labour force has grown more strongly than the demographic trend, despite the weak economy. This suggests that the Government's reforms have improved the functioning of the labour market. The forecast assumes that the Government's policies have already achieved almost their full impact on labour force participation. If labour force participation continues to increase over the next few years as a consequence of the Government's reforms, this will result in employment and GDP increasing more than is assumed in the forecast, without giving rise to any tendencies towards overheating in the economy.

Another domestic risk involves uncertainty regarding Swedish households' savings ratio. The savings ratio has been high since the financial crisis in 2008. Falling asset prices and, increased precautionary savings as a consequence of the concerns in the financial markets and fear of unemployment are among the factors that tend to lead to a high savings ratio. In the forecast, the savings ratio is assumed to gradually fall back as the economy improves, asset prices stabilise and precautionary savings decreases. However, it is possible that households will seek to reduce their debt to a greater extent than that assumed in the forecast. If the high savings ratio can be attributed to a structural shift in the economy, for example if households seek to amortise their loans to a greater extent than at any point in the past 20 years, this would mean that the savings ratio would not fall, to the extent assumed in the principal scenario. Such a development would entail weaker growth in consumption, lower GDP growth and higher unemployment between 2013 and 2015.

An additional cause for uncertainty is productivity trend. Average productivity growth has been low since the financial crisis and there is a risk that productivity will continue to develop more weakly than is assessed in the forecast. This could, for example, involve a structural transformation, whereby the composition of sectors in business and industry shifts towards less productive sectors. It is also possible that the strong increase in employment will contribute to productivity weakening more than is assumed in the principal scenario. At the same time, there are factors suggesting that productivity could rise more than is assumed in the forecast. For example, investments have yet to return to the 2007 level. If Swedish companies prove to have dammed-up investment needs, this could lead to them starting to invest sooner and to a greater extent than that assumed in the forecast, the result over the next few years would be higher productivity and GDP growth. In alternative scenario 2, a more detailed analysis is given of how higher productivity would affect the development of the Swedish economy.

Alternative scenario 1: Weaker trend in the international economy

This alternative scenario analyses how the Swedish economy would be affected by a weaker trend in Sweden's export markets between 2013 and 2014 than assumed in the principal scenario. The alternative scenario builds on three assumptions. The first assumes that the indicator measure "Global Market Demand" (GMD) will grow slower between 2013 and 2014 than is assumed in the principal scenario. The second assumes a strong Swedish economy compared with the international economy, resulting in the SEK appreciating in value by more than 3 per cent annually between 2013 and 2014 according to the TCW exchange rate index. The third assumes that Swedish banks, as a consequence of a protracted recession and continued financial unease internationally, will encounter higher financing costs, which it is assumed will cause wider mortgage spreads.

In this alternative scenario, lower international demand and appreciation in the exchange rate, contribute to a weaker export trend between 2013 and 2014 (see Table 12). Export growth is 3.5 and 3.0 percentage points weaker than the assessments in the principal scenario for 2013 and 2014 respectively. For 2015, exports grow faster than in the principal scenario due to a depreciation in the exchange rate and an increase in the growth of the world market. However, the export level is lower towards the end of the forecast period in this alternative scenario than in the main scenario.

Table 12 Alternative scenario 1: Weaker international demand

Forecast according to the main scenario in parentheses, annual percentage change, unless otherwise stated

	2012	2013	2014	2015
GDP	0.4 (0.4)	2.1 (3.3)	2.8 (3.7)	4.4 (3.6)
Employment ¹	-0.2 (-0.1)	0.0 (0.3)	0.5 (1.4)	1.5 (1.7)
Unemployment ^{1,2}	7.9 (7.8)	8.0 (7.7)	8.1 (6.9)	7.1 (5.7)
GDP gap ³	-2.7 (-2.7)	-3.2 (-2.1)	-2.8 (-0.9)	-1.6 (-0.4)
Repo rate ⁴	0.75 (1.00)	0.25 (1.50)	0.25 (2.50)	1.00 (3.50)
CPIF ⁵	0.7 (1.0)	0.7 (1.3)	0.6 (1.4)	0.8 (1.7)
Net lending ⁶	-0.3 (-0.3)	0.1 (0.3)	1.0 (1.6)	2.4 (3.0)

¹ 15–74 years.

² Per cent of the labour force.

³ The difference between actual and potential GDP as a percentage of potential GDP.

⁴ Closing rate.

⁵ Annual average.

⁶ Per cent of GDP.

Source: Own calculations.

The weaker export trend means that resource utilisation in the economy as a whole will decrease. The GDP gap falls to a negative 3.3 per cent in 2013 compared with a decline in the GDP gap to a negative 2.1 per cent in 2013 in the principal scenario. As a consequence of the low level of resource utilisation, inflation throughout the forecast period is low. Monetary policy will therefore grow more expansive and the Riksbank will cut its repo rate to 0.25 per cent in 2013. The repo rate will not be raised until 2015 when GDP growth out-develops the trend and the GDP gap decreases. The low interest level contributes positively to gross fixed capital formation. However, weaker production means that investment as a whole develops more weakly between 2014 and 2015. Since mortgage spreads are higher in the principal scenario, the low key interest rate has no major positive effect on household consumption. Lower inflation in consumer prices mean that real wages, and thus consumption, will develop in line with the main scenario between 2013 and 2014. Higher unemployment will, however, lead to a weaker consumption trend in 2015.

Weaker demand leads to both the number of hours worked and productivity being lower in 2013. The decline in hours worked is attributable both to lower employment and a lower average number of hours worked in 2013. The employment trend remains weak between 2014 and 2015, entailing higher unemployment throughout the forecast period. Unemployment tops out at 8.1 per cent in 2014, but then falls back to 7.1 per cent in 2015.

The lower number of hours worked leads to a lower wage bill trend, which, in turn, leads to lower income taxes and social security contributions. VAT revenues will also be lower due to lower consumption at current prices. On the whole, general government net lending, as a proportion of GDP, will be an average 0.5 percentage points lower per year between 2013 and 2015 compared with the principal scenario.

A weaker global economy would entail a more protracted economic downturn in Sweden over the next few years. GDP growth is 1.2 and 0.9 percentage points lower in 2013 and 2014 respectively, mainly as a consequence of the weaker export trend. As international demand accelerates, GDP will rise rapidly in 2015. However, the GDP gap remains negative at the end of 2015.

Alternative scenario 2: Higher potential productivity growth in the business sector

The productivity trend in the business sector has varied considerably historically and is thus difficult to forecast. On average, productivity in the business sector by 2.3 per cent per year between 1981 and 2011. The trend was, however, considerably stronger between 1993 and 2006, when it rose by an average 3.5 per cent per year. In the principal scenario, potential productivity is assessed to grow at a weaker 2.1 per cent per year between 2012 and 2015.

This alternative scenario analyses the effects on the Swedish economy of an average potential productivity in the business sector of 2.6 per cent per year between 2012 and 2015. The higher productivity level may be attributable to a structural shift towards more productive markets and/or innovations in given markets. It could also be because productivity is higher among new participants in the labour market than is assumed in the principal scenario. It is also assumed that the increased potential productivity contributes to greater competitiveness in the export market, resulting in Sweden not losing shares of the export market.

The higher potential productivity in the business sector entails a higher level in the capital stock. This raises the level of investment between 2012 and 2015, with investment growing by an average 7.1 per cent between 2012 and 2015, compared with 5.9 per cent in the principal scenario. In addition, export growth will be stronger as a consequence of export companies capturing market shares and having increased production capacity compared with the main scenario.

Table 13 Alternative scenario 2: Higher potential productivity

Forecast according to the main scenario in parentheses, annual percentage change, unless otherwise stated

	2012	2013	2014	2015
GDP	0.5 (0.4)	3.9 (3.3)	4.5 (3.7)	4.2 (3.6)
Employment ¹	-0.1 (-0.1)	0.3 (0.3)	1.5 (1.4)	1.9 (1.7)
Unemployment ^{1,2}	7.8 (7.8)	7.7 (7.7)	6.8 (6.9)	5.3 (5.7)
GDP gap ³	-3.0 (-2.7)	-2.2 (-2.1)	-0.7 (-0.9)	0.0 (-0.4)
Repo rate ⁴	1.00 (1.00)	1.75 (1.50)	2.75 (2.50)	4.00 (3.50)
CPIF ⁵	0.9 (1.0)	1.3 (1.3)	1.4 (1.4)	1.8 (1.7)
Net lending ⁶	-0.3 (-0.3)	0.4 (0.3)	1.7 (1.6)	3.3 (3.0)

¹ 15–74 years.

² Per cent of the labour force.

³ The difference between actual and potential GDP as a percentage of potential GDP.

⁴ Closing rate.

⁵ Annual average

⁶ Per cent of GDP.

Source: Own calculations.

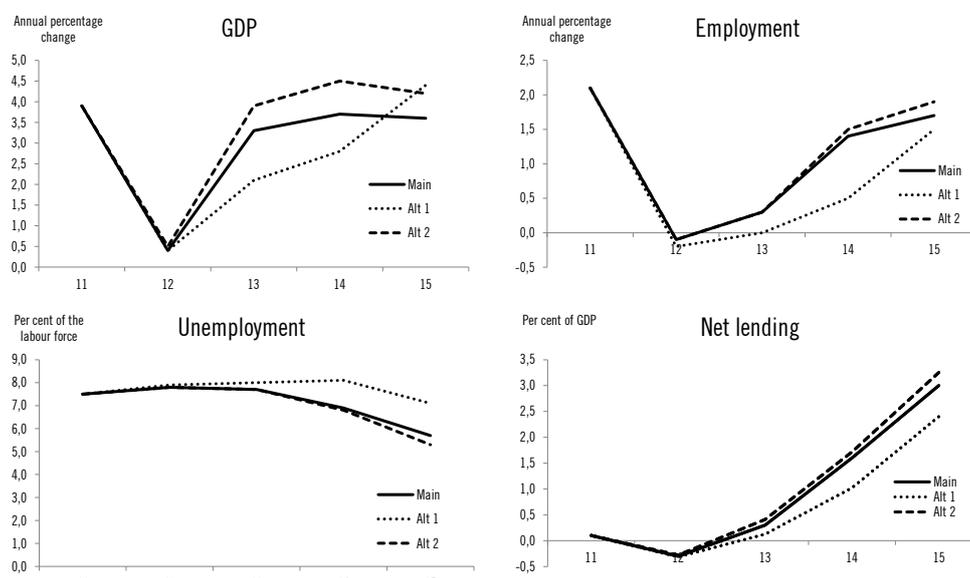
The higher productivity level leads to faster increases in real wages, which, in turn, contributes to consumption growing considerably faster in the alternative scenario compared with the principal scenario. Stronger demand leads to an improved labour market trend towards the end of the forecast period. CPIF inflation remains largely unchanged compared with the principal scenario, since marginally higher unit labour costs are largely offset by a stronger exchange rate. Monetary policy will, however, be tighter and the repo rate will rise to 4.0 per cent in 2015.

Increased private consumption leads to higher VAT revenues and stronger wage bill growth provides increased revenues from tax on labour. Corporate tax revenues are also higher than in the principal scenario. General government net lending as a proportion of GDP will be an average 0.2 percentage points higher per year between 2013 and 2015.

On the whole, GDP will grow by an average 4.1 per cent in 2013-2015 compared with an average 3.5 per cent over the same period in the main scenario. Since potential GDP is also higher in the alternative scenario, GDP could actually grow more than in the principal scenario without resulting in strained resource utilisation and overheating of the Swedish economy.

Diagram 8 Development of GDP, employment, unemployment and net lending in main scenario and alternative scenarios 2011–2015

Annual percentage change and per cent of GDP



Source: Own calculations.

4.2 Comparison with the 2011 convergence programme

Table 14 compares the forecast in the 2012 convergence programme with that in the 2011 programme.

Growth in Swedish GDP has been revised down for 2012 from 3.8 per cent in the 2011 convergence programme to 0.4 per cent in the 2012 convergence programme. In early 2011, the Swedish economy benefited from strong international demand, favourable central government finances and strong growth in employment. In the second half of 2011, the European public debt crisis led to financial unease, falling confidence indicators and a downturn in international demand. Since Sweden is a small, open economy with a large export sector, Swedish growth is affected quickly and to a considerable extent by a decline in the international economy. A strong decline in exports towards the end of

2011 meant that the recovery of the Swedish economy was halted and GDP fell by -1.1 per cent in the fourth quarter of 2011 compared with the third quarter. A strong slow-down in growth at the end of 2011 and a weak start to 2012 means that the figure for 2012 as a whole will be weak even though a favourable rate of growth is expected in the second half of 2012.

The changed view of the future economic trend has also implied consequences for the forecasting of general government net lending. The general government sector's net lending has been revised down by slightly more than 2 percentage points for 2012. This is mainly due to lower private consumption and a slower development of the wage bill in 2012, which have caused revenues from VAT and tax on labour to be revised down. Also in 2013-2015, net lending was also revised down by slightly more than 2 percentage points per year.

In turn, the lower net lending led to the consolidated gross debt now being assessed as higher than in the 2011 convergence programme. As a percentage of GDP, however, the debt has been revised up by 4-8 percentage points for 2012-2014.

Table 14 Comparison with the updated convergence programme for 2011

Annual percentage volume change and per cent of GDP

	2011	2012	2013	2014	2015
GDP, percentage change in volume					
Updated convergence programme for 2011	4.6	3.8	3.6	2.8	–
Convergence programme 2012	3.9	0.4	3.3	3.7	3.6
Difference, percentage points	-0.7	-3.4	-0.3	0.9	–
General government net lending, per cent of GDP¹					
Updated convergence programme for 2011	0.3	1.8	2.8	3.7	–
Convergence programme 2012	0.1	-0.3	0.3	1.6	3.0
Difference, percentage points	-0.2	-2.1	-2.5	-2.1	–
of which reforms to BP12	0.0	-0.4	-0.5	-0.4	-0.3
Consolidated gross debt, per cent of GDP					
Updated convergence programme for 2011	36.8	33.4	28.8	23.6	–
Convergence programme 2012	38.4	37.7	35.4	31.8	27.5
Difference, percentage points	1.6	4.3	6.6	8.2	–

¹ According to ENS-95.

Sources: Statistics Sweden and own calculations.

5 Long-term sustainability of fiscal policy

The international financial crisis is bringing the sustainability of fiscal policy into focus. Among other causes, the crisis is an effect of decreased confidence in highly indebted countries' capacity to manage their general government debt and deficits. Besides countries' capacity to repay their debts being brought into question, uncertainty also prevails regarding how the balance in general government finances is to be secured.

The European government debt crisis clearly illustrates that unsustainable fiscal policies sooner or later must be put right. In several countries, this adjustment is currently taking place by means of urgent interventions in public operations and there is considerable risk that the measures required to maintain sustainability will have negative consequences that may take a long time to restore. Firstly, measures such as immediate tax hikes or public welfare cutbacks entail strengthening the prevailing recession and probably even lengthening it. Secondly, the measures also have effects in terms of structural and redistribution policy that can have negative consequences for growth, employment and the distribution of welfare. Thirdly, decreased confidence in fiscal policy and the capacity of the public sector to finance its undertakings lead to higher risk premiums and interest rates. Fourthly, poorer borrowing terms weaken net lending, which, combined with rising debt, decreases the scope for stabilisation measures.

To conduct an active and forward-looking fiscal policy, it is important that the sustainability and the confidence in the political system is upheld. This is particularly true of structural policy where financial scope may be required for measures that do not always improve sustainability but that are desirable from the perspectives of efficiency or welfare. A sustainable fiscal policy can also generate a positive spiral that facilitates and permits an active structural policy that, in turn, forms a basis on which sustainability can be maintained in the long-run.

The main purpose of this section and with sustainability assessments in general is to pick up early on signs that fiscal policy is unsustainable so that measures to ensure sustainability and uphold confidence in the public finances can be implemented. Delaying necessary changes impedes the reform process and exacerbates problems while necessitating more rigorous and far-reaching measures at a later stage. Observing unsustainable fiscal policies at an early stage allows more time for well-considered reforms while also allowing households and companies to adjust to the new conditions over an longer period of time.

5.1 What is meant by fiscal policy being sustainable in the long term?

Various fiscal policy designs may all be sustainable in the long term, but that is not to say that they are feasible or desirable from a socioeconomic perspective. If fiscal sustainability is discussed solely from a financial perspective significant elements of the problems facing policy makers in the long term are disregarded. Against this background, this section applies the term fiscal sustainability in a broader sense in which the feasibility and socioeconomic consequences of policies are included in the assessment.

General government revenues and expenditure must balance over time

While government revenues and expenditure must balance over time, they need not balance for each individual year. On the contrary, there are strong arguments for permitting variations in net lending. For example, tax rates should not be changed as a response to temporary surpluses or deficits in the general government budget. The reason for this is that stable tax rates are to be preferred over variable or trend-related tax increases since losses in efficiency and welfare are smaller under more stable conditions. At the same time, temporary cutbacks in the public welfare systems should be avoided, since these can lead to unmotivated redistributions of welfare. Furthermore, fiscal policies aimed at balancing the budget for every individual year risk reinforcing economic fluctuations and disrupting planning conditions for households, for example.

The general government sector's finances should, instead, balance over an extended period of time. An assessment of whether the balanced budget requirement is met can be made using the general government sector's so-called intertemporal budget constraints, which entails that initial net wealth, combined with current and future general government revenues must be sufficient to finance general government expenditure over time. If the intertemporal budget constraints is met, the fiscal policy is financially sustainable.

General government debt and net lending must develop in a sustainable manner

Although the Government may consider fiscal policy to be sustainable, financial markets, households and companies acting on shorter time horizons, may take a different view. For example, temporarily weakened net lending, with a temporary increase in central government debt, may cause uncertainty regarding the general government sector's capacity to fulfil its commitments. This may decrease confidence in fiscal policy and lead to higher risk premiums and interest rates, which may in turn entail the intertemporal budget constraint no longer being met. For fiscal policy to be considered sustainable, the trend in central government debt and net lending should also lie within the bounds for what credit providers and other actors consider plausible.

A number of studies show that a weakening in general government finances leads to higher interest rates, but that the correlation between the financial situation and the scope of risk premiums is unclear.¹⁰ It is also unclear what levels in central government debt and the budget deficit cause higher risk premiums. Consequently it is difficult to assess how the financial markets react to variations in central government debt

¹⁰ Haugh, D., P. Ollivaud and D. Turner (2009), What drives sovereign risk premiums? An analysis of recent evidence from the Euro area, Economics Department Working Papers, nr. 718, OECD.

and net lending and under what conditions they perceive general government finances to be sustainable.

For an overall assessment, the rules set by the stability and growth pact and the Swedish surplus target can nonetheless be used. The rules cannot be connected directly to the financial markets' reactions, but do represent established political standards with clear limits with which both the debt and net lending can be compared.¹¹ If fiscal policy fails to meet its own established or internationally imposed standards, the credibility of the political process will be damaged.

The distribution of welfare must be reasonable

Financially sustainable fiscal policy can be achieved in different ways, although not all of these are socio-economically desirable or feasible in the long run. If financial sustainability is achieved at the expense of, for example, major cuts in compensation levels in the social security systems, major redistributions between generations or large-scale tax increases, fiscal policy may encounter problems. The feasibility of fiscal policy may be called into question since the manner in which sustainability is achieved may be unreasonable from the perspective of redistribution policy and not necessarily acceptable to all groups in society. For fiscal policy to be considered sustainable, financial sustainability must be achieved in a way that redistributes welfare and economic resources in an acceptable way.

The way in which taxes and general government expenditure affects the distribution between generations can be assessed by means of so-called generational accounting. In broad terms, the method means that net contributions to the general government sector by currently living generations are compared with contributions by future generations. If the net contribution by future generations exceeds that of currently living generations, this indicates that current generations are availing themselves of part of future generations' scope for consumption and that fiscal policy is having effects that may be considered unreasonable in terms of redistribution.¹²

It is also important to try to analyse and assess how the policies conducted affect the distribution of income at any given time. For example, rules in the pension system, combined with rising life expectancy among seniors may cause pensioners' relative income to fall over time compared with that of those who are active in the labour force.¹³ The consequence may be that the income distribution, both

¹¹ According to the Stability and Growth Pact, Maastricht debt should not exceed 60 per cent of GDP and its net lending should not exceed 3 per cent of GDP.

¹² To be able to assess the distribution between generations, the Ministry of Finance is currently developing a new dynamic equilibrium model with overlapping generations.

¹³ With increasing life expectancy, opening pension levels are lower if average retirement age remains unchanged. Opening pension is calculated by dividing the pension balance

generally and within generations, increases and that pensions are perceived as insufficient.

Conflicting objectives between redistribution, stabilisation and structural policy should be limited

Over the next 20 years, the generation born in the 1940 will be reaching the care-intensive 80-plus age range, while the generation born in the 1960s will be entering retirement. This will exert pressure on general government finances and, in about 2030, general government net lending will therefore weaken for purely demographic reasons. From the perspectives of both redistribution and efficiency, such variations should, as mentioned previously, not be adjusted, since doing so could cause both losses in efficiency and unwanted redistributions. At the same time, the weaker net lending situation will mean that room for adjustment in the general government finances will be lower and that margins within stabilisation policy for countering economic downturns or acute crises will be limited during this period.

Lengthy periods of weak net lending may entail fiscal policy being forced into a situation in which there are serious conflicts between objectives, where stabilisation considerations conflict with structural and redistribution objectives. For fiscal policy to be considered sustainable, these conflicts between objectives should be limited. The severity of these conflicts between objectives can be assessed in terms of how net lending develops in the future and whether net lending is considered inadequate. One way to assess this is to determine whether net lending falls below the limit for the current level of the surplus target over extended periods.

A comprehensive assessment provides a better view of sustainability

Here, the sustainability of fiscal policy is used in a broader sense than simply financial sustainability. For it to be possible to consider fiscal policy as sustainable, the intertemporal budget constraint must be met, while the financial markets and other actors perceive the policy plausible. Furthermore, fiscal policy should not entail unreasonable redistributions of welfare and economic resources, neither between nor within generations. Nor should the implementation of a desirable stabilisation policy impede opportunities to achieve objectives in terms of redistribution and structural policy. By conducting a comprehensive assessment of fiscal policy based on the above four assessment criteria, a more detailed study of the long-term sustainability of fiscal policy is enabled. This makes it possible to take into account other parts of the

by a division factor. The division factor increases with increasing life expectancy at the time of retirement.

complex of problems facing fiscal policy, such as long-term feasibility and socioeconomic desirability.

Surplus target and long-term financial sustainability

The Riksdag has determined that net lending in the general government sector shall correspond to 1 per cent of GDP over an economic cycle. If the surplus target is maintained in the long term, general government finances will, by definition, be sustainable. Sustainability is thus achieved by fiscal policy being adjusted such that the surplus target is achieved. The adjustment is made through changes in taxation or in public expenditure. With a permanent surplus target, net lending remains constant while policies vary. This contrasts with how long-term sustainability is analysed in this section, the intention being to ascertain whether the current design of fiscal policy is sustainable in the long term. To achieve the purpose of the sustainability calculations, the policy must therefore be kept constant while net lending is allowed to vary. Consequently, the level of the surplus target does not represent a restriction on fiscal policy in the long-term calculations.

The Government has determined that the level of the surplus target should be reviewed on a regular basis. The savings process resulting from a long-range calculation and a fiscal policy that is sustainable in the long term can form the basis for a reassessment of the level of the surplus target. The Government takes the view that the surplus target's current level is to be maintained over the present term of office and as long as is necessary for the public finances to develop in a direction that is sustainable in the long term. Consequently, no review of the surplus target is required at this time.¹⁴

5.2 Challenges for fiscal policy in the long term

In the longer term, fiscal policy and general government finances face a number of challenges that can only be affected by policy makers to a limited extent. At a global level, the UN, for example, recognises a number of long-term challenges where the international economy and the financial markets will be put to the test by the continued growth and ageing of the population, globalisation and the climate threat.¹⁵ The trend in these global challenges also affects the Swedish economy and the general government finances. On the other hand, it is unclear to what extent increased global pressure on labour and refugee migration will affect immigration to Sweden. In the same way, it is uncertain how Sweden will be affected by the globalisation process. As a small, open and export-dependent country, Sweden benefits considerably from globalisation, while, at the same time, being sensitive to international

¹⁴See The Ministry memorandum Assessment of the surplus target (DS 2010:4).

¹⁵ FN 2011. World Economic and Social Survey 2010. Retooling Global Development.

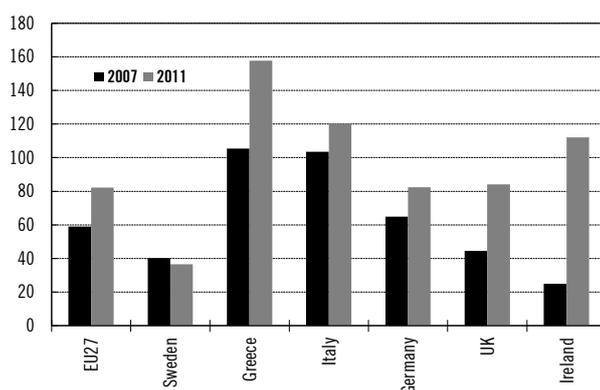
financial concerns, for example. In addition, the climate threat is also a significant matter of national interest, where the ambition is to cut future emissions. The uncertainties and difficulties involved in modelling the global challenges mean that no calculations are presented regarding their impact on fiscal sustainability.

Sustainability in times of crisis

In the wake of the 2008-2009 financial crisis, average central government debt as a percentage of GDP in the EU rose by close to 23 percentage points, from 59 to 82 per cent, between 2007 and 2011. What began as a financial crisis has now also progressed into a public debt crisis. The variations between countries are also considerable. While central government debt has risen by nearly 90 per cent in Ireland, it has fallen in Sweden; see Diagram 9.

Diagram 9 Central government debt 2007 and 2011

Per cent of GDP



Source: European Commission, 2011.

The extent to which fiscal sustainability is affected by crises depends on the extent to which the negative effects become entrenched. A normal recession is a passing phase that only affects sustainability marginally, since the economy and the general government finances can be expected to recover. In more severe crises and extended period of recession, the effects can be more permanent and have the effect of weakening fiscal sustainability.¹⁶ An example of this is that equilibrium unemployment is thought to have risen by 3 percentage points in Sweden as a consequence

¹⁶ It can take a country a long time to pull itself out of an economic crisis. In a number of countries that have experienced national financial crises since WWII, it took an average of 4.5 years for GDP to return to the pre-crisis level. Following the crisis of the 1990s it took slightly less than five years for Swedish GDP to return to the pre-crisis level, while in certain other international crisis episodes, this took up to eight years, as in Finland in 1991. See further Reinhart, C.M. and Rogoff, K.S., *This Time is Different, Eight Centuries of Financial Folly*, Princeton University Press, 2009.

of the economic crisis of the 1990s.¹⁷ Another risk is that temporary stimulus measures may become permanent. This may, for example, involve temporary tax cuts or temporary subsidies that are subsequently difficult to retract. An example is the policy applied in Denmark whereby those who have worked a sufficient number of years are able to retire early. The reform was introduced during the 1979 recession, but as the economy strengthened and politicians sought to retract the reform, this encountered vigorous opposition from the general public.

As mentioned previously, weakened net lending, with a temporary increase in central government debt, may cause uncertainty regarding the general government sector's capacity to fulfil its commitments despite fiscal policy being considered sustainable in the long term. Weak confidence in fiscal policy may entail negative reactions from the financial markets, resulting in higher interest rates and rising debt.

Demographics and general government finances

Increasing life expectancy with an ageing population, leading to an increased proportion of seniors, is of considerable importance for the general government finances.¹⁸ Diagram 10 shows the trend in the dependency ratio.¹⁹ For 2011, the ratio is 0.71, that is, each person of working age must support 0.71 persons of non-working age. By 2050, the dependency ration will increase to 0.84 and by 2100 to 0.90.

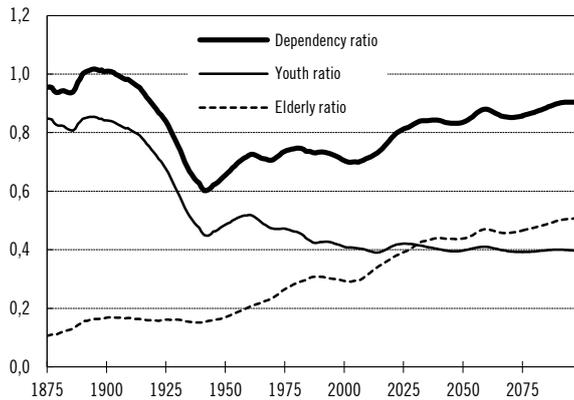
¹⁷See report 2011:1 How should the development of the functioning of the labour market be assessed? From the economics section of the Ministry of Finance.

¹⁸Future demographic trends are described in more detail in Statistics Sweden's report Sweden's future population 2011-2060.

¹⁹The dependency ratio is calculated as the number of people of non-working age divided by the number of people of working age. A dependency ratio of 1 means that each person of working age must support one person of non-working age. Here, working age is defined as 20-64 years of age. People between the ages of 0 and 19, and 65 or older are counted as being of non-working age. The dependency ratio can be divided into two components – the youth ratio and the elderly ratio. The youth ratio is calculated as the number of people aged 0-19 in relation to the number of people of working age, while the elderly ratio indicates, in the same way the relationship between the number of people aged 65 or older and the number of people of working age.

Diagram 10 Dependency ratios, 1875–2099

Percentage

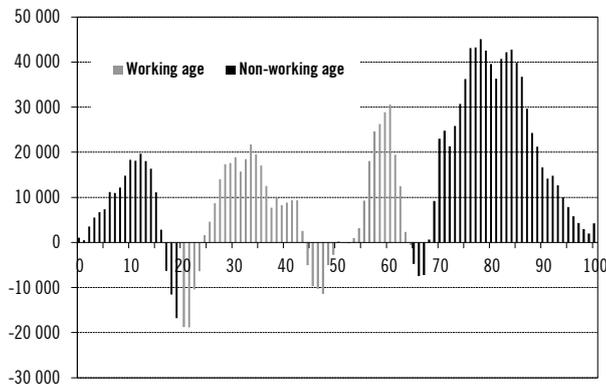


Sources: Statistics Sweden and own calculations.

The dependency ratio rises as a consequence of the number of seniors increasing both in absolute figures, and in relation to the number of people of working age. This can be seen in Diagram 11, which shows how the number of people in various age groups will change between 2011 and 2050. The group of people aged 65 years or older will increase by 775, 000, while those of working age will increase by 320, 000. Besides decreased risk of death, the large generations born in the 1940s, 1960s and 1990s will contribute to the sizeable changes over time.

Diagram 11 Change in population by age, 2010–2050

Number of people



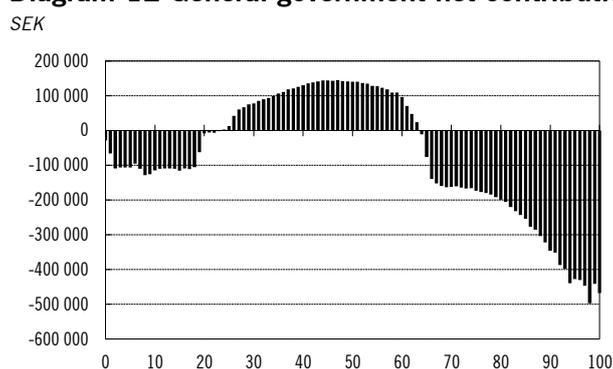
Sources: Statistics Sweden and own calculations.

How the general government finances are affected by changes in the age composition of the population can be illustrated by means of public net contributions by age.²⁰ Diagram 12 shows that the net contribution for younger people, up to about 20 years of age, is dominated by general

²⁰The net contribution for a particular age consists of the difference between general government revenue and expenditure, that is, taxes and charges paid in by people of that age and the amount that the same age group receives in the form of general government transfer payments and general government consumption. The net contribution is calculated as an average for all individuals of a certain age per year.

government expenditure, particularly in the form of childcare and education. For the age groups 25-64, net contributions are positive, since, on average, those individuals contribute more in terms of taxes and charges than they get back in the form of transfers and welfare services. At the age of 65, net contributions are again negative, since many elect to retire. Expenditure increases with age due to rising expenses for care of the elderly and health care. Towards the end of life, expenditure rises rapidly and for a 95-year-old, for example, the net contribution is SEK -427, 000 per year, per person.

Diagram 12 General government net contribution per person by age, 2008



Sources: Statistics Sweden and own calculations.

Note: Negative net contributions mean that the cost for consumed services and transfer payments received exceed tax payments for an average individual, and the inverse in the case of positive values.

The problems in general government finances that can be caused by future demographic trends become clear if the change in population, see Diagram 11, is combined with the general government net contribution, see Diagram 12. The considerable increase in the senior population largely coincides with the groups for whom the net contribution is most negative.

To illustrate the problem one can make a simplified assumptions that net contributions by age will remain the same in the future. Expenditure would thus increase considerably, solely due to the growth in the number of seniors. Between 2011 and 2050, for example, the number of people aged 95 or older will rise by slightly less than 8000 individuals. With an average net contribution of SEK -427, 000, the total net increase in expenditure for this age group alone will be more than SEK 3 billion. To a certain extent, the increase in expenditure is covered by an increase in the number of people of working age, which means that revenues will also increase. The number of people of working age, in this statistic calculation does not, however, increase sufficiently to offset the increased expenditure. To counter the demographic pressure on expenditure and improve net contributions, working life can be extended. This may entail, for example, that net contributions will not fall at the same rate after the age of 60, but will remain at a higher, positive level and that they will remain positive higher up through the age categories.

Future trends in general government finances are also strongly dependent on changes in net contributions by age. With rising average life expectancy, the need for health care and other care services is expected to decline as a consequence of improved health among seniors. Costs for care of the elderly rise more in the final phase of life rather than with rising age, meaning that expenditure for the elderly will be displaced to higher age categories as average life expectancy rises. While this will ease demographic pressure on expenditure, it will not remove it.

Naturally, the future demographic trend is uncertain and it is difficult to assess the scope of immigration in particular. Without immigration, the number of people of working age will decrease. There are further reasons to promote immigration from a socioeconomic perspective. Among other issues, problems associated with bottlenecks in the labour market, causing wage inflation, can be alleviated if the labour force is broadened through immigration. Trade relations with immigrants' countries of origin can be strengthened. However, the importance of immigration for the Swedish economy and the general government finances has not been fully charted.

Demand effects of increasing wealth

Economic prosperity and per-capita GDP have increased over an extended period and are expected to continue to do so. Despite rising prosperity enabling improved welfare, it may also entail changes in priorities and increased demand for welfare services that can weaken fiscal sustainability.

Firstly, it is likely that rising prosperity will lead to increased demand for leisure. When incomes rise, needs for material welfare abate while leisure is valued all the more highly. During the lifetime of an individual, leisure increased in several different ways, for example, through decreased working hours per week, additional vacation days, an earlier exit from the labour market or through more part-time work. Additional leisure time, entailing decreased hours worked, decreases the public sector's tax revenues without expenditure necessarily decreasing to the same extent. At the same time, future generations will be able to work the same number of hours as today while nonetheless increasing their leisure over their lifetimes. Increased life expectancy among seniors that does not entail an equally great rise in retirement age means increased leisure for pensioners. In this case, the number of hours worked could be the same as today or even higher, despite increased leisure.

Higher real wages need not result in lower labour supply, but may, conversely increase the supply. Increased income means that the consumption sacrificed for increased leisure will be greater. This is particularly true if non-work-related income, such as transfer payments, do not increase at the same rate as income from work.

Secondly, increased economic prosperity could also result in an increase in the general government welfare commitment. The

phenomenon is known as Wagner's Law and implies that the general government sector grows as a percentage of GDP in pace with economic growth. One reason for this could be that an increasingly prosperous society also becomes more complex, and that the need for unifying general government operations and rule of law therefore increases. Another explanation is that demand for publicly financed welfare services, such as education, culture and care, may rise faster than revenues. For the general government finances, Wagner's Law entails a sustainability problem, since it implies that general government expenditure continuously increases as a percentage of GDP when GDP rises.²¹ In Sweden, general government expenditure rose continuously as a percentage of GDP from 24 per cent in 1950 to 65 per cent in 1982. The expenditure ratio decreased somewhat in the 1980s, but then rose again substantially as a consequence of the crisis of the 1990s and amounted to 69 per cent of GDP in 1993. Since then, the expenditure ratio has declined to nearly 51 per cent of GDP in 2010. It may therefore appear as though the correlation between the expenditure ratio and growth were weak in Sweden. A number of studies have attempted to assess the correlation between increased economic prosperity and the trend in the size of the general government sector, and to ascertain whether there is any empirical support for Wagner's Law – the results have, however, been ambiguous and have varied, both between countries and the periods examined.²²

General government sector cost disease

A further problematic condition for the general government finances is that productivity growth in labour-intensive services tends to be lower than for less labour-intensive production. It can be difficult to improve the efficiency of services such as education, child and health care through, for example, improved technology. At the same time, wages for these services largely follow trends in the sectors with higher productivity growth, resulting in a gradual rise in the relative unit cost for labour-intensive services. This is referred to as Baumol's Law or cost disease for labour-intensive services. The consequences for the general government sector is that the costs involved in providing a certain level of e.g. child care and care of the elderly can tend to increase over time.

There is a certain lack of agreement as to the extent to which Baumol's law applies to the entire general government sector. In the National Accounts, productivity growth was, until recently, assumed to

²¹Wagner's Law can also be expressed by saying that general government revenue elasticity as a whole is greater than one.

²² The article Projecting OECD Health and Long-Term Care Expenditures: What are the Main Drivers? Economic Department Working Papers No. 477, OECD 2006, includes a useful account and overview of the literature in the area.

be zero in the general government sector.²³ Many take the view, however, that productivity has actually increased in certain parts of the general government sector – health care, for example.²⁴ Nonetheless, it is generally difficult to quantify productivity changes in the general government sector, since most general government production takes place in a market that is not subject to free market pricing.

It is not obvious that higher relative unit costs in general government production also lead to increased expenditure. General government costs are, in part, the result of the demand and supply of publicly financed services and, in part, of a political process – both of which can mitigate cost pressure. This is why it is not possible to determine in advance the extent to which cost pressure will lead to increased expenditure or decreased production. Some analysts, however, take the view that cost disease is sufficiently serious to demand immediate measures to identify alternative financing opportunities.²⁵

How should welfare be financed?

The challenges addressed above suggest that, with time, general government finances may be subject to pressure. On the expenditure side, the costs may increase due to ageing, cost disease and increased needs as prosperity increases. These expenditures are to be financed by a diminishing proportion of working age people who, with their rising income, may seek to work to a lesser and lesser extent.

Individually it is possible that the challenges are surmountable from the perspective of sustainability. Together, though, they represent a threat to future fiscal policy. At the same time, prosperity is increasing, as are the resources with which the financial dilemma will be met. Consequently, the major political challenge lies not in a future lack of resources but in how these resources will be allocated to finance the increasing needs. It is not obvious that all future needs can be financed through taxation.

Questions surrounding the future financing of welfare include considerations concerning retirement age, financing through charges and what the scope of the future general government undertaking should be. However, the task of resolving the issue of financing is greater than that. The issue must be set in a broader context where future welfare

²³ Previously, general government consumption was measured in the National Accounts as the production cost, for example, the wage cost. That meant that the productivity trend was, in principle, zero. In the past few years, however, Statistics Sweden has begun to estimate the productivity trend in certain parts of the general government sector.

²⁴ See the reports *Health care up to 2030* and *Productivity and efficiency in healthcare* from the Swedish Association of Local Authorities and Regions, 2005 and 2006.

²⁵ See Lindbeck, A., *Sustainable Social Spending*, Seminar Paper No. 739, Institute for International Economic Studies. A summary of the criticism can be found in Hindricks, J., & Myles, D., G., *Intermediate Public Economics*, MIT 2006.

financing both supports the maintenance of fiscal sustainability but is also desirable from the perspectives of socio-economics, efficiency and welfare.

5.3 How can the conditions for long-term sustainability be improved?

The importance of productivity

Higher business sector productivity means that combined wage increases in society rise, and thus also tax revenues, thereby strengthening the general government finances. There are, however, also effects in the opposite direction. General government sector wage trends generally follow trends in the private sector, meaning that productivity increases in the private sector spill over into the wage trend in general government operations. Consequently, general government expenditure increases. Added to this is the fact that general government transfer payments, in the long term, can be assumed to follow the wage trend, increasing expenditure even further. The effect of economic growth arising through productivity improvements in the business sector does not therefore necessarily improve the general government finances.

General government sector productivity improvements may, on the other hand, have a considerable effect on sustainability, since improved general government efficiency entails higher production for given resources or the same production at a lower cost. There are, for example, considerable disparities between different hospitals and county councils in how much care is produced in relation to costs – even when differences in care needs are taken into account.²⁶ Open comparisons between clinics, hospitals and county councils help highlight differences and opportunities for improvement. Consequently, it is possible to achieve socioeconomic gains if knowledge and concepts from the more productive actors are disseminated such that less efficient care providers can improve.

Paths towards a longer working life

Between the mid-1970s and the mid-1990s, the average age of entry into the labour market rose, while the age at which people exit the market fell. These trends have been broken in recent years. One way of improving the long-term sustainability of fiscal policy is to extend working life by lowering the age of entry and raising the retirement age.

²⁶Health care from different perspectives. Comparison between county councils, 2009. Swedish Association of Local Authorities and Regions (SALAR).

Earlier entrance into the labour market

The age at which people enter the labour market has risen by slightly more than three years to 21.3 years since the mid-1970s, although, over the past five years, it has remained largely unchanged.²⁷ The foremost cause is that an increasing number of people study longer. The average age at which people in Sweden gain a university-level qualification is 29.5 years, which is among the highest in the OECD countries. The average for the OECD countries is 26.6 years, in the UK 23.8 years and in Germany 27.1 years.²⁸ The principal reason for this high graduation age is that Swedes start their studies late. Swedish university students are on average 22.4 years of age when embarking on higher education, while the average in the OECD countries is 20.3 years.

If studies are begun earlier, the lifetime income of the individual increases, since the period with the greater income resulting from higher educations is thus longer. With people graduating earlier, the number of hours worked is expected to rise and tax revenues to thereby be greater. Another effect is that education-related costs decrease, mainly because transfer payments are lower both during the period of study as well as after graduation. Calculations show that the general government net contribution from graduation being achieved one year earlier is an average of approximately SEK 70 000 per student.²⁹ This means that if one year-group of students were to graduate one year earlier, the total net contribution to the general government finances would be slightly more than SEK 4 billion.³⁰

By increasing the through-flow rate in the education system and lowering the graduation age, the conditions can be improved for lowering the age of entry into the labour market.³¹

Postponed exit from the labour market

Today's seniors can look forward to considerably longer periods as pensioners compared with previous generations. The age at which people exit the labour market has fallen over a 40-year period, while average life expectancy has risen, see Table 15. The retirement age currently averages

²⁷ The entry age is calculated as the average age at which a 31-year-old (who is already participating in the labour force) would have first entered the labour market given that working patterns among various age groups are constant for the year concerned. In this context, entry into the labour market refers to participation in the labour force in accordance with Statistics Sweden's labour force surveys.

²⁸ See Long-term Survey 2011 SOU: 2010:88 Appendix 3. Ages of graduation are for 2007.

²⁹ The assessment of current value is based on Long-term Survey 2011 (SOU: 2010:88 Appendix 3). The net contribution depends on which age group is taken as the point of departure and varies between SEK 30 000 and SEK 110 000.

³⁰ This is a rough estimation based on approximately 60 000 people graduating from Swedish universities and schools of higher education each year.

³¹ The 2011 Long-term Survey recommends among other things that the proportion accepted via the University Standard Aptitude Test should decrease in favour of increased grades-based induction, that repayment of student loans be linked to age of graduation and that study support also be linked to study results.

about 63 years, while the expected remaining average life expectancy at 65 is nearly 20 years.

In an international perspective, the retirement age in Sweden is comparatively high. Among European countries with comparable data, Sweden has the highest retirement age. In France and Italy, the retirement age is as low as 58-59, while in the US and Japan, it is 64-65 years.

Table 15 Retirement age and remaining average life expectancy

	Women		Men	
	1970	2010	1970	2010
Retirement age	61	63	66	64
Average remaining life expectancy at 65	17.5	21.1	14.1	18.2

Source: Statistics Sweden and the Swedish Pensions Agency

Studies indicate that seniors who retire have poorer health and cognitive capacity than those who continue to work.³² Postponed retirement could possibly result in reduced health care costs even for older age categories.

A number of factors suggest that retirement age can be expected to rise in the future. Improved health combined with fewer people having physically demanding jobs has improved conditions, enabling people to continue working until a later age. The level of education is also higher today than previously and people with higher education leave the labour force later than those without higher education.³³ There are also economic driving forces in the pension system acting in favour of postponing retirement from the labour market. Old-age pension is now based on average life expectancy on retirement and calculations show that retirement age could, for this reason rise by 1.5 years by 2024.³⁴

There is, however, a socially established norm of retirement at 65 years of age. If retirement is not postponed, this will result in pensioners' incomes being lower in relation to those still in employment. The principal reason is that, in this case, the pension system provides a lower opening pension level when average life expectancy increases and the pension rights earned must be distributed among a greater number of years in retirement. A development in this direction could cause fiscal stability problems since an increasing number of pensioners may qualify for other compensations, such as housing supplements for pensioners. Pensions may also be perceived as insufficient, which could give rise to demands for compensation, such as increased pension or tax cuts for pensioners, to even out the relative discrepancy between pensioners and those in gainful employment. Under such conditions, there is a risk that fiscal policy may, in the long term, need to be realigned to meet the needs and demands of pensioners. It is therefore important that

³² See Rohwedder, S and Willis, R.J., *Mental retirement*, Journal of Economic Perspectives, 2011.

³³ Length of working life, Swedish Pensions Agency, 2011.

³⁴ See the report The Fiscal Policy Council's Report 2009.

favourable conditions be generated for a postponement of the retirement age. The Government has therefore appointed a commission to prepare proposals for how pension-related age limits should be addressed and to analyse the impediments to and opportunities for working until a later age.

In addition to the age limits in the general systems, there may be other impediments that limit opportunities for a longer working life. Demand for older labour may be limited by seniors' competence failing to sufficiently meet employers' requirements, higher employment costs, such as for expensive service pension agreements, increased risk of absence due to illness, and age discrimination. The supply of senior labour may also be impeded if seniors opt to exit the labour market by other paths, for example, through early retirement, unemployment benefit or service pension, or if employers do not provide opportunities for part-time employment.³⁵

The Government has also implemented a number of measures aimed at stimulating a later exit, including raising the basic deduction, abolishing payroll tax and simplifying and raising the in-work tax credit for employees over 65. These measures strengthen motivation to remain in the labour market by making it more advantageous for seniors to continue working and for employers to hire senior labour.

Improved integration

Labour market participation among those born outside Sweden is weaker than those born here as can be observed in the lower employment ratio, 57 per cent among those who are 15-74 years of age compared with approximately 69 per cent for those born in Sweden, and higher unemployment, approximately 15 per cent of the labour force compared with 5 per cent among those born here. Labour market participation also differs between different groups of people born abroad with, for example, refugees born outside Europe being unemployed to a greater extent than others.

There are several reasons why integration of immigrants is working less than adequately.³⁶ Demand for the qualifications immigrants bring may be low among employers. Skills may be country or language-specific and therefore of less use for Swedish employers. Uncertainty regarding qualifications, due to differences in education systems, for example, may also cause certain people to be deselected. In addition, thresholds in the labour market may make it difficult for immigrants to become established. Examples of such thresholds can include various forms of

³⁵Opportunities for part-time work allow seniors to remain in the labour force for longer than would otherwise be possible. See Labour Market for seniors, Studies in fiscal policy 2009/7 from the Fiscal Policy Council.

³⁶See report 2011:5 Employment for immigrants – an ESO report on labour market integration from the Expert Committee for Studies in Public Finance.

discrimination, the design of employment protection and wages being high even for simpler jobs. Furthermore information about vacancies and recommendations are often conveyed via personal contacts. Newly arrived immigrants generally have limited networks and for people living in areas with high unemployment, it may be difficult to build up a network that is useful from a labour market perspective.

With improved integration of the immigrant population, the long-term sustainability of fiscal policy is improved through increased tax revenues and lowered expenditure on, for example, financial support, housing support and labour market support. A raised employment ratio among the immigrant population by 10 per cent is estimated to strengthen the general government finances by 1.3 per cent of the overall scope of the general government sector, corresponding to SEK 18.9 billion.³⁷

The Government has implemented a number of reforms to get more people born outside Sweden into work. In addition to the establishment reform, generally designed reforms to make it more profitable to work and simpler to employ have strengthened the conditions for immigrants' integration into the labour market. Specifically targeted measures have also been implemented. Among other things, foothold jobs and new start jobs have been introduced to strengthen incentives to employ immigrants, and various reforms have been implemented to strengthen the human capital of those born outside Sweden and to make this more visible to others.

5.4 Calculations of fiscal sustainability

How fiscal sustainability is calculated the assumptions on which this is based are described in more detail in the memorandum In-depth assessment of long-term fiscal sustainability, which has been published on the Government's website.

Base scenario

The point of departure for the long-term projection of the Swedish economy and the general government finances is the mid-term forecast for the period up until and including 2016 as was presented in the Spring Fiscal Policy Bill for 2012. In 2011, general government primary net lending corresponded to -0.8 per cent of GDP.³⁸ Between 2012 and 2016, there will be a gradual adjustment towards normal resource utilisation in

³⁷In the calculation, general government expenditure declines by SEK 7.5 billion while general government revenues rise by SEK 11.4 billion at 2006 prices. See report 2009:3 Immigration and public finances from the Expert Committee for Studies in Public Finance.

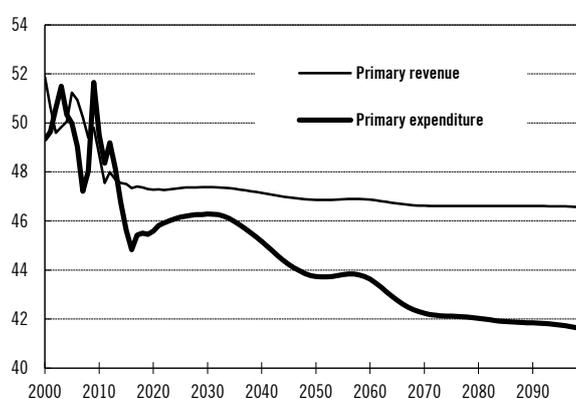
³⁸Primary net lending is the general government sector's revenues less charges, excluding interest payments and income from capital. Net lending corresponds to the amount saved when interest payments and income from capital are included.

the economy, with higher employment and lower unemployment, which will improve the position of the general government finances. In 2016, primary net lending in the general government sector is calculated to amount to 2.5 per cent of GDP, which established a favourable point of departure, from the perspective of general government finances, for the long-term projection. For several reasons, the point of departure is of decisive importance in the assessment of fiscal sustainability.

In the base scenario, the labour market behaviour of the population is assumed to remain unchanged as of 2017, so that the labour supply in terms of age and gender remains constant. This means, for example, that in the future, a 50-year-old woman will work as much as a 50-year-old woman works today.

Diagram 13 General government revenue and expenditure, 2000–2099

Per cent of GDP



Sources: Statistics Sweden and own calculations.

The scenario is also based on fiscal policy remaining unchanged. This means that taxes are kept at the same level so that their share of the tax base is constant. For general government consumption, it is assumed that the standard per user will remain the same over time. For example it is assumed that a 90-year-old will in the future receive as many house calls as a 90-year-old today. The compensation levels in the transfer payment systems are also kept unchanged so that transfer payments are constant in relation to the wage income levels of those in gainful employment. This means that transfer payments that follow price trends in accordance with regulations or that are nominally determined are assumed to rise in pace with average wages.

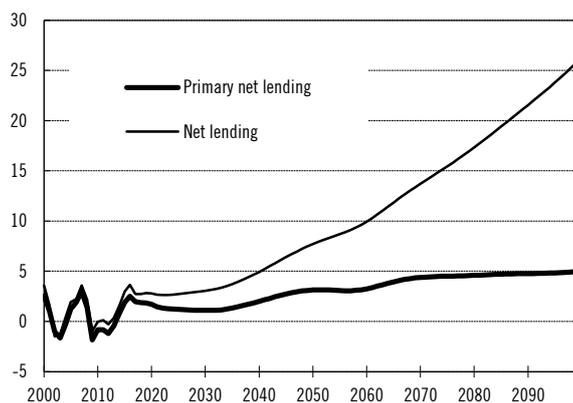
The period 2020–2040 is characterised by rising expenditure pressure due to demographic changes, causing clear variations in primary expenditure over time. In 2020 an upswing will commence that will culminate in about 2030 and then abate. The increase is close to 1 per cent of GDP and is caused by the large generation born in the 1940s reaching the cost-intensive age level above 80, while the generation born in the 1960s begins to exit the labour market. Demography varies less and less with time and expenditure stabilises at slightly more than 41 per cent of GDP. The long-term trend of falling expenditure is mainly

caused by general government consumption declining as a proportion of GDP. General government transfers and investments also fall as a proportion of GDP over time, albeit to a lesser extent.

The tax bases for general government revenues are less sensitive to demographic variations. From a level of slightly more than 47 per cent of GDP in 2016, primary revenues will, with time, stabilise at slightly more than 46 per cent of GDP.

Diagram 14 Net lending in the base scenario, 2000–2099

Per cent of GDP

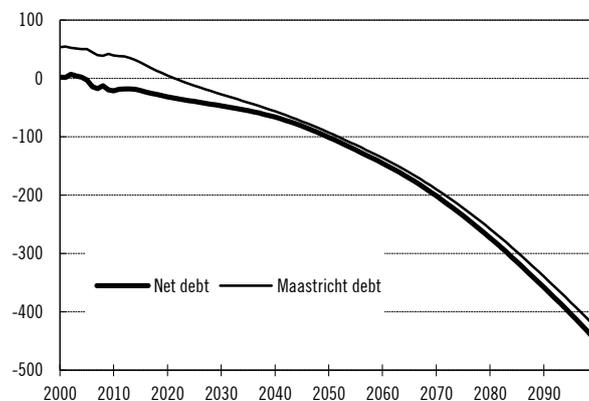


Sources: Statistics Sweden and own calculations.

As a consequence of increased general government expenditure, primary net lending will fall from 2.5 per cent of GDP in 2016 to 1.1 per cent in 2030. Primary net lending will subsequently improve, amounting to 5 per cent of GDP in 2099. The higher level of primary net lending contributes to a strong trend in general government net wealth and to capital income increasing in the long term. This means that net lending, including capital income, will become extensive with time, reaching slightly more than 27 per cent of GDP in 2099.

Diagram 15 Net debt and Maastricht debt, 2000–2099

Per cent of GDP



Sources: Statistics Sweden and own calculations.

The strong primary net lending shows fiscal sustainability to be good, but to obtain a complete picture, the intertemporal budget constraint must be assessed. To make such an assessment, the European Commission has developed two indicators, known as S1 and S2. S1 shows how much the budget can be strengthened or weakened for Maastricht debt to be 60 per cent of GDP in 2060, while S2 shows how much the budget can be strengthened or weakened for the intertemporal budget constraint to be met.³⁹ The strengthening or weakening can be achieved through changes in both general government revenues and expenditure. While S2 measures fiscal sustainability in an infinite perspective, the purpose of S1 is to establish a concrete target for fiscal policy at a given time. In the calculations of S1, Maastricht debt is set at 60 per cent of GDP in 2060 – and that is also the upper limit for debt applied by the European Commission. Consequently, S1 should not be interpreted as defining scope for reforms but rather as expressing how much the budget must be adjusted to precisely meet the debt limit set by the Stability and Growth Pact for 2060. Similarly, nor should S2 be viewed as a measure of the current scope for reforms. S2 simply shows how much the budget must be adjusted so that fiscal sustainability can be maintained indefinitely under given calculation conditions.

In the base scenario, S1 is -1.6 per cent of GDP, meaning that the general government budget can be weakened by 1.6 per cent of GDP, immediately and permanently, for Maastricht debt to be 60 per cent of GDP in 2060. S2 is -3.9 per cent of GDP, meaning that the general government budget can be weakened, immediately and permanently, by 3.9 per cent for the general government finances to balance in the long term. Consequently, both indicators show the general government finances to be sustainable in the long term.

The strong trend in primary net lending in the base scenario creates a relatively wide margin for stabilisation measures, for example, to counter possible acute crises or economic downturns. The conflict between the objectives of stabilisation policy and redistribution and structural policies can therefore be considered relatively limited, even for the period around 2030 when primary net lending will be at its weakest. The trend in net lending and Maastricht debt lies within the bounds of the requirements of the Stability and Growth Pact. Two important

³⁹The S2 measure provides a comprehensive picture of fiscal sustainability in an infinite temporal perspective. S2 can also be interpreted as an indication of how much the budget must be changed for net debt, as a proportion of GDP, not to grow unchecked over time. From a political perspective, S2 may have shortcomings in terms of how up-to-date it is and it can be too abstract to be used in formulating current fiscal policy. S1 is a finite version of S2, where the purpose is to achieve a certain level of debt at a particular time. The purpose of S1 is to establish a clear financial target for fiscal policy that can be assessed in terms of whether and how it can be achieved. By choosing different times at which the target must be achieved, different demands are imposed on fiscal policy. A more detailed description of how S1 and S2 are interpreted and how they are calculated is provided in the memorandum In-depth assessment of long-term fiscal sustainability, which has been published on the Government's website.

requirements for policies to be seen as credible by the financial markets have thus been fulfilled.

If the financial crisis worsens

In the base scenario, the general government finances are deemed to be fiscally sustainable despite the on-going international public debt crisis and concerns in the financial markets. However, there are considerable uncertainties regarding the duration and depth of the crisis. The purpose of this section is to illustrate more closely the effects of a deepened crisis on the general government finances in the long term.

In an initial scenario, Deepened crisis with temporary expenditure increases, the crisis is assumed to lengthen and grow deeper. The number of hours worked is thus assumed to be lower up until 2025. To bridge the weakened economic situation, it is assumed that fiscal policy will be forced to adopt stimulus measures in the form of increased transfer payments and increased general government consumption. Following an initial increase, transfer payments and consumption are both gradually approaching the levels in the base scenario for the period up until 2025.

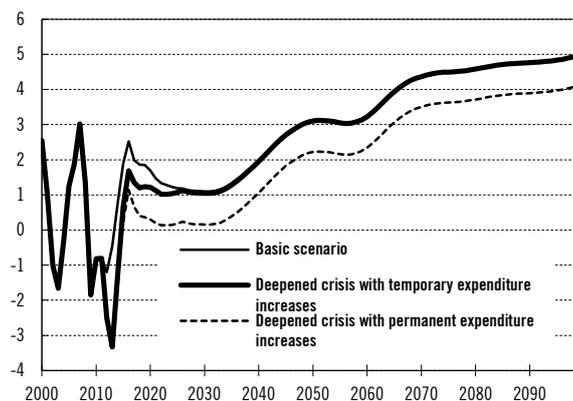
In a second scenario, Deepened crisis with permanent expenditure increases, the assumptions are the same as in the first scenario, with the key difference that expenditure is assumed to become permanently set at the higher level from 2014 and onwards as a consequence of it not being possible to retract the stimulus measures. The main difference is thus that effects of the crisis on general government expenditure becomes permanent and that expenditure will not therefore return to the levels indicated in the base scenario.

In both crisis scenarios, primary net lending up until 2026 is weaker than in the base scenario. The reason for this is that the number of hours worked up until 2026 is lower – weakening general government revenues. In addition, general government expenditure is assumed to be higher.

In the scenario with temporary expenditure increases, the number of hours worked, general government consumption and transfer payments return to the same levels as in the base scenario. Primary net lending thus adjusts, with time, to the same level as in the base scenario.

Diagram 16 Primary net lending in the event of deepened crisis, 2000–2099

Per cent of GDP



Sources: Statistics Sweden and own calculations.

In the scenario with permanent expenditure increases, on the other hand, expenditure remains slightly less than 1 per cent higher than in the base scenario. Primary net lending is thus consistently lower by, approximately 1 per cent of GDP throughout the projected period.

Fiscal sustainability is affected relatively little by temporary expenditure increases. S1 weakens by 0.3, while S2 only weakens by 0.1 per cent of GDP. With permanent expenditure increases, fiscal sustainability weakens and both S1 and S2 weaken by 1.0 per cent of GDP. In both cases, fiscal policy is thus fiscally sustainable. In an extended assessment of sustainability, net lending and debt over shorter time horizons should also be taken into account. The trend whereby the budget deficit exceeds 3 per cent of GDP, can have repercussions in the form of weakened confidence in fiscal policy, raised interest rates and risk premiums, which would weaken sustainability considerably more than is suggested by the financial sustainability indicators.

The two crisis scenarios show that general government fiscal sustainability is affected relatively little by a deepened crisis as long as the economic stimuli do not become permanent. From a sustainability perspective, it is thus important that any fiscal stimuli are temporary and are retracted when no longer motivated for reasons of stabilisation policy.

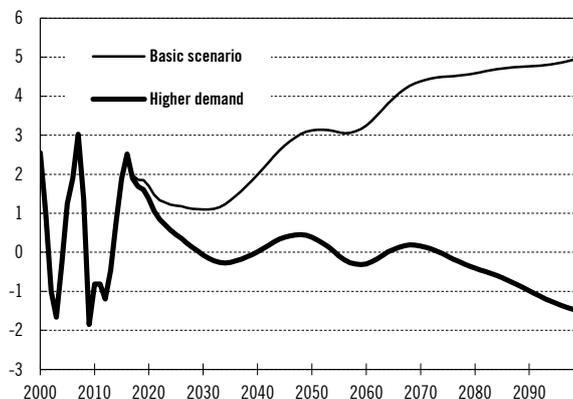
Higher demand for leisure and welfare services

All scenarios foresee continued long-term growth and increased prosperity, which can change the population's priorities and lead to higher demand for both leisure and publicly financed welfare services. In this scenario, Higher demand for leisure and welfare services, the intention is to demonstrate the consequences of such changes in demand. Average working hours are assumed to decrease by 0.1 per cent

per year⁴⁰ compared with the basic scenario, while general government consumption for health care and care services grows by 0.2 per cent more per year than is demographically motivated.⁴¹

Diagram 17 Primary net lending with higher demand, 2000–2099

Per cent of GDP



Sources: Statistics Sweden and own calculations.

Primary net lending is dramatically eroded compared with the basic scenario, weakening sustainability considerably. S1 is -0.3, which represents a weakening by 1.4 per cent of GDP compared with the basic scenario. S2 is 0.6, which represents a weakening by 4.5 per cent of GDP. According to the S2 indicator, the general government finances are thus slightly unsustainable in the long term in this scenario. A third of the weakening is due to increasing demand for leisure and two thirds are due to increasing demand for publicly financed welfare services.

Future generations who chose to work to a lesser extent than today also face decreased opportunities to finance publicly financed welfare services since tax revenues would also decrease. However, the problems of fiscal sustainability that arise would primarily impact the generations that choose to work less. Consequently, the conclusion is not that current fiscal policy should be realigned. However, the problems of sustainability do serve as a sign that policy may be exposed to considerable pressure for change. As people avail themselves of more leisure and the number of hours worked declines, the general government finances are exposed to increasing pressure for change to maintain sustainability.

Increased demand for welfare services does not necessarily mean that services must be financed by the general government sector. A growing private welfare sector has emerged in recent years and opportunities for individuals to finance their own needs have therefore increased.

⁴⁰This agrees roughly with the decline in average number of hours worked between 1980 and 2009.

⁴¹The historical trend in recent decades shows that expenditure in real terms has risen by 0.7 percentage points more than was determined demographically. However, this increase was calculated for a period in which welfare services were still being built out.

For the volume of publicly financed welfare services in the scenario to be able to increase, it is understood that fiscal policy must gradually change over time. Possible problems of sustainability due to realigned future policies should not burden current generations, but should be addressed by those making decisions regarding changes in the future. Consequently, the conclusion is not that current fiscal policy should be changed. Changes in demand for welfare services emerge gradually and over extended period of time and the combined effect can be very substantial. To counteract the financial difficulties that can arise, fiscal preparedness for alternative approaches to financing welfare services should be in place.

Longer working life

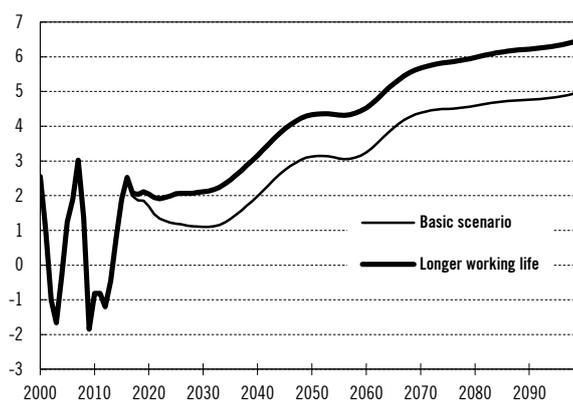
The previous scenario illustrated, among other things, the importance of trying to counteract a trend whereby the total number of hours worked declines. This scenario analyses the effects of a longer working life. Up until 2016, the average age at which people enter the labour market is assumed to fall by one year. Retirement age is assumed to rise continuously by half of the increase in remaining life expectancy at the age of 65. For 2050, this entails an increase by slightly less than one year and for 2099, an increase by slightly less than two years.

Compared with the base scenario, sustainability is tangibly strengthened. S1 improves by 0.4 per cent of GDP to -2.4 and S2 improves by 1.3 per cent of GDP to -5.1.⁴² The scenario demonstrates that an extended working life can generate considerable scope facilitating the financing of welfare in the long term. Among other things, this requires, for example, that regulations in the pension system entail retirement being delayed and that the through-flow in the education system improves so that the age of entry into the labour market falls.

⁴²For S1, the lowering of the entry age has just as great an impact as the delay in retirement age. Measured in terms of S2, sustainability improves by 0.5 per cent of GDP due to the lower entry age and by 0.9 per cent of GDP due to the raising of the retirement age.

Diagram 18 Primary net lending with a longer working life, 2000–2099

Per cent of GDP



Sources: Statistics Sweden and own calculations.

Sensitivity in the calculations

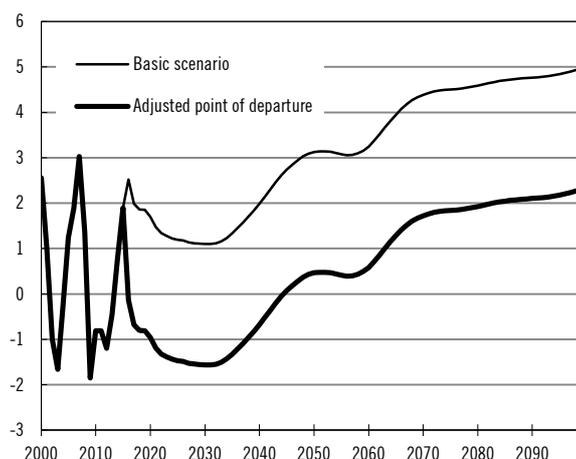
The S1 and S2 sustainability indicators show the general government finances to be sustainable in the long term in the base scenario. The results must, however, be interpreted with great caution for several reasons.

In the forecast up until 2016, it is assumed that fiscal policy will remain unchanged and that no reforms are implemented other than those that have already been approved. The point of departure in the general government finances for the long-term projection is thus very favourable, which also affects the calculations of the level of net lending for the future. It is likely that several reforms will be implemented in the period up until 2016 and that the point of departure will therefore worsen. This entails net lending during the calculation period weakening to a corresponding extent, which also weakens fiscal sustainability.⁴³ To describe the importance of a weaker point of departure, it can be assumed that the net lending is 1 per cent of GDP in 2016, which is the current lending for the surplus target. This is 2.7 percentage points lower than in the base scenario. In the long-term calculations, primary net lending is thus brought down throughout the projection period by 2.7 percentage points, as is illustrated in Diagram 19.

⁴³Expenditure levels in general government consumption in 2016, general government transfer payments and investments are used as starting values for the long-term projection. Higher expenditure levels in 2016 will therefore have a direct impact on the calculations of long-term trends.

Diagram 19 Primary net lending with a weaker point of departure, 2000–2099

Per cent of GDP



Sources: Statistics Sweden and own calculations.

On this assumption, S1 and S2 worsen substantially. The S2 indicator ends up at -1.3, showing fiscal policy to be fiscally sustainable still, despite such a substantial change. S1, however, ends up at 0.2, showing the policy to be slightly unsustainable. The difference between S1 and S2 shows, among other things, the importance of the infinite horizon in the calculation of S2. Despite the sizeable initial deficit, primary net lending improves considerably, resulting in such a strong impact that fiscal sustainability can nonetheless be maintained.

The period 2020-2040 is, however, characterised by rising expenditure pressure due to demographic changes. Consequently, a weakening in the point of departure changes the picture vis-à-vis sustainability considerably, despite the general government finances being considered sustainable according to S2. Primary net lending is weaker and a budget deficit of more than 1.5 per cent of GDP occurs over an extended period around 2030. Should such a development occur, the financial markets' risk assessments may be affected, resulting in more stringent borrowing terms, despite demographic pressure being transitional in this case.

The conflict between the objectives of stabilisation, redistribution and structural policy become also even clearer. The room for adjustment in stabilisation measures is considerably smaller and possible margins for countering recessions and crises may conflict with desires for reforms in terms of structural and redistribution policy.

Changes in fiscal policy over the next few years that durably raise, for example, the level of transfer payments to households entail the point of departure, primary net lending in the long term and fiscal sustainability will be weaker in the long-term calculations. The prevailing international unease and recession are also generating considerable uncertainty regarding the level of primary net lending in 2016. For each step by which the point of departure is worsened, the primary net lending in the basic scenario approaches the trend described by the weakened point of

departure in Diagram 19. Major changes in the point of departure can thus entail fiscal policy facing sustainability issues other than the purely financial ones. Against this background, the scope generated by good fiscal sustainability is very important.

The fiscal challenges addressed have an effect over a very long term and the calculations often extend far into the future for that reason. The long calculation horizon entails a sizeable element of uncertainty, which also affects the sustainability assessment. It should also be added that the calculations depend strongly on the assumptions made. To quantify and illustrate the uncertainty, Table 16 reports a number of sensitivity analyses with various adjustments in assumptions and how these affect S1 and S2.⁴⁴

Table 16 Change in S1 and S2 compared with the basic scenario

Per cent of GDP

	$\Delta S1$	$\Delta S2$
Deepened crisis with temporary expenditure increases	0.3	0.1
Deepened crisis with permanent expenditure increases	1.0	1.0
Increased demand for leisure and welfare services	1.4	4.5
Longer working life	-0.8	-1.3
More leisure	0.5	1.4
More welfare	0.9	2.9
Earlier start of working life	-0.4	-0.5
Later retirement	-0.4	-0.9
Improved integration	-0.4	-0.4
Higher equilibrium unemployment	0.3	0.4
Higher employment ratio	-0.2	-0.3
Higher productivity in the general government sector	-0.4	-1.0
Improved health	-0.1	-0.4

Note: In the basic scenario, S1 is -1.6 and S2 is -3.9. Positive values indicated a weakening in sustainability, while negative values indicate an improvement.

In the scenario Improved integration, it is assumed that employment levels among people born outside Sweden approach those born in Sweden by one third up until 2026. The effect is that S2 is strengthened by 0.4 per cent of GDP. In the scenario Higher equilibrium unemployment, it is assumed that equilibrium unemployment is 1 percentage point higher because employment is 1 percentage point lower, weakening S2 by 0.4 per cent of GDP. In the scenario Higher employment ratio, it is assumed that the employment ratio and labour force participation are 1 percentage point higher. S2 then improves by 0.3 per cent of GDP. In the scenario Higher productivity, it is assumed that labour productivity in the general government sector rises by 0.1 per cent per year, improving S2 by 1.0 per cent of GDP. In the scenario

⁴⁴In the sensitivity analyses More leisure and Raised standards, the assumptions are the same as in the Increased demand for leisure and welfare services scenario. In the analyses Lower entry age and Higher retirement age the assumptions are the same as in the A longer working life scenario.

Improved health it is assumed that the age-specific costs for health care and care of the elderly are gradually displaced upwards in terms of age in pace with increasing average life expectancy at 65. This improves S2 by 0.4 per cent of GDP.

The European Commission's assessment of fiscal sustainability

In the autumn of 2011, the European Commission published new calculations for the EU countries where S2 for Sweden is 0.1 per cent of GDP.⁴⁵ The discrepancy compared with S2 in the basic scenario is considerable. The main reason that the calculations differ is that the European Commission applies general government gross debt rather than net debt as in this document and that the Commission makes a different assessment of the standard trend in welfare services, assuming instead that the standard increases over time.

The Commission judges that the risk for imbalances in the general government finances in the long term is low where Sweden is concerned and that no particular measures need be taken. The Commission also divides the countries into three different groups where those with an S2 below 2 per cent of GDP are classed as low-risk countries. This group includes Sweden, Estonia and Denmark. The average S2 value for the EU member countries is 7.3, which reflects substantial long-term imbalances and problems in central government finances. At the same time, the variations between countries are considerable, with, for example, S2 for Ireland being calculated at slightly more than 15 per cent of GDP and for Greece at more than 17.

5.5 Overall assessment of the long-term sustainability of fiscal policy

The base scenario in this document proceeds from fiscal policy being unchanged and with no reforms being implemented other than those that have already been approved. Given these conditions, fiscal policy can be considered fiscally sustainable with S1 at -1.6 per cent of GDP and S2 at -3.9. Last year, S1 was calculated at -1.7 and S2 at -3.4. The differences between the years can mainly be explained by old-age pensions being expected to be lower than in previous years.

The net lending process and the debt trend also lie within the limits set by the Stability and Growth Pact. Consequently, two important requirements that form the basis for the markets' assessment of sustainability are fulfilled and the risk of higher risk premiums and interest rates can therefore be considered limited.

The favourable trend in primary net lending in the basic scenario also shows that the conflicting objectives between consideration of

⁴⁵ Public finances in the EMU 2011, European Economy 3, 2011, European Commission.

stabilisation policy, redistribution policy and structural policy are limited and should not therefore threaten fiscal sustainability in the long term.

The new pension system generates strong incentives to work until later in life as average life expectancy increases although if retirement age is not postponed, pensioners' incomes decrease in relation to those of people in gainful employment. From the perspective of redistribution policy, such a trend could necessitate fiscal policy having to be realigned in the longer term, with increased expenditure to meet the needs and demands of future pensioners.

The period 2020-2040 will be characterised by demographic expenditure pressure. Primary net lending is expected to fall by 1 per cent of GDP between 2020 and 2030. A weakened point of departure in terms of the general government finances as demographic pressure on expenditure starts to rise in 2020 could entail a lengthy period of weakened general government net lending, with less scope for stabilisation measures and structural reforms. Combined with possible needs and demands in terms of redistribution policy, for example because pensions are perceived as insufficient, fiscal policy could encounter increasingly severe conflicts of objectives.

A severely weakened point of departure in terms of general government finances could therefore confront fiscal policy with problems of sustainability, despite the policy being fiscally sustainable. Against this background, the long-term fiscal scope generated by good fiscal sustainability is very important.

The complex of problems discussed above also shows the importance of continued long-term policies aimed at strengthening the incentives for work and for an extended working life. With increased average life expectancy, it is possible to increase both leisure and the amount of time spent in work when viewed across lifetimes.

6 Quality in general government finances

6.1 Expenditure

Principles have been developed at the EU level for the production of uniform statistics on the member countries' distributions of general government finances. Uniform statistics facilitate comparisons of different member states' public expenditure and of their development over time. To be able to evaluate whether a change in the composition of general government expenditure has affected long-term growth, further information is required and at a greater degree of 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 17 and 18 provide details of expenditure by purpose in accordance with the Cofog classifications.

Table 17 General government expenditure by purpose, per cent of GDP

Per cent of GDP

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Change 2010–2009
General public administration	9.4	8.1	8.6	7.7	7.4	7.5	7.6	7.4	7.5	7.4	7.0	-2.4
Interest	3.5	2.8	3.1	2.3	1.8	1.9	1.8	1.8	1.7	1.3	1.2	-2.4
Other	5.9	5.3	5.5	5.4	5.5	5.6	5.8	5.6	5.8	6.1	5.9	-0.1
Defence	2.3	2.1	2.1	2.0	1.9	1.7	1.7	1.6	1.5	1.5	1.6	-0.7
Social responsibility and judicial system	1.3	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.4	1.5	1.4	0.1
Economic issues and economic policy	3.7	3.9	4.2	4.2	4.1	4.3	4.1	4.0	4.3	4.7	4.6	0.9
Environmental protection	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.3	0.1
Provision of housing and social planning	0.9	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.8	0.8	0.7	-0.2
Health care	6.1	6.5	6.8	7.0	6.7	6.7	6.6	6.6	6.9	7.4	7.1	1.0
Leisure, culture and religion	1.1	1.1	1.1	1.1	1.0	1.0	1.1	1.1	1.1	1.2	1.2	0.1
Education	6.8	7.2	7.3	7.2	7.1	7.0	6.9	6.7	6.8	7.2	7.0	0.2
Social security	23.2	23.0	23.1	23.9	23.5	23.0	22.3	21.1	21.1	22.9	21.6	-1.6
Total expenditure	55.1	54.5	55.6	55.7	54.2	53.9	52.7	51.0	51.7	54.9	52.5	-2.6
Excluding interest	51.6	51.8	52.5	53.4	52.3	52.0	51.0	49.2	50.0	53.6	51.3	-0.3

Sources: Statistics Sweden and own calculations.

Quantified as a percentage of GDP, overall expenditure declined over the period 2000–2010, even though it rose notably in 2009 in the wake of the financial crisis. The decline is explained by, among other things, falling interest expenses and the fact that GDP growth was high across that 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 11 per cent in 2000, 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.

Table 18 General government expenditure by purpose, per cent of total expenditure

Per cent of total expenditure

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Change 2000-2010
General public administration	17.1	14.9	15.4	13.8	13.6	13.9	14.3	14.5	14.5	13.5	13.4	-2.6
Interest	6.4	5.1	5.6	4.1	3.4	3.5	3.3	3.5	3.3	2.4	2.2	-4.5
Other	10.7	9.8	9.9	9.8	10.2	10.4	11.0	11.0	11.2	11.1	11.2	1.9
Defence	4.2	3.9	3.7	3.6	3.4	3.2	3.3	3.1	2.9	2.8	3.0	-1.1
Social responsibility and judicial system	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.7	0.3
Economic issues and economic policy	6.7	7.2	7.5	7.6	7.6	8.0	7.7	7.9	8.3	8.5	8.8	0.8
Environmental protection	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.6	0.4
Provision of housing and social planning	1.7	1.8	1.6	1.6	1.5	1.6	1.4	1.4	1.5	1.5	1.4	-1.4
Health care	11.0	11.9	12.2	12.5	12.4	12.5	12.6	13.0	13.3	13.4	13.5	2.8
Leisure, culture and religion	1.9	2.0	1.9	1.9	1.9	1.9	2.1	2.1	2.2	2.2	2.2	-0.8
Education	12.3	13.1	13.1	13.0	13.1	13.0	13.1	13.1	13.2	13.2	13.3	0.7
Social security	42.2	42.1	41.5	42.9	43.4	42.7	42.2	41.5	40.8	41.7	41.2	1.0
Total expenditure	100.0	0.0										
Excluding interest	93.6	94.9	94.4	95.9	96.6	96.5	96.7	96.5	96.7	97.6	97.8	4.5

Sources: Statistics Sweden and own calculations.

6.2 Revenue

Between 2004 and 2011, the tax ratio, i.e. total tax revenue as a percentage of GDP, declined by 3.6 percentage points (see Table 19). In 2015, the tax ratio is expected to be 44.6 per cent of GDP.

Tax on labour in particular has declined over the period 2004-2011. 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 objectives in the 2011 Budget Bill.

Table 19 Tax revenue

Per cent of GDP

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Change 2004-2015
Tax on labour	30.3	30.0	29.1	27.9	28.4	27.9	26.2	26.0	26.5	26.4	26.3	26.3	-4.0
Direct taxes	17.5	17.2	16.6	15.5	15.5	15.3	14.3	14.0	14.4	14.3	14.3	14.3	-3.2
Indirect taxes	12.8	12.7	12.5	12.5	12.8	12.6	12.0	12.0	12.1	12.0	12.0	12.0	-0.8
Tax on capital	5.1	6.1	6.5	6.7	5.1	5.2	5.7	5.4	5.3	5.3	5.4	5.5	0.4
Tax on capital, households	0.4	0.8	1.3	1.6	0.8	0.8	1.0	0.7	0.8	0.7	0.8	0.7	0.3
Tax on company profits	2.7	3.3	3.4	3.3	2.6	2.8	3.2	3.2	3.1	3.2	3.2	3.2	0.5
Tax on consumption	12.7	12.9	12.7	12.8	13.1	13.6	13.5	13.1	13.0	13.0	12.8	12.7	0.0
VAT	8.8	9.0	9.0	9.1	9.4	9.7	9.7	9.5	9.5	9.5	9.4	9.4	0.6
Arrears and other taxes	-0.1	0.0	-0.1	0.0	-0.1	-0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Total tax revenue	48.1	48.9	48.3	47.4	46.4	46.6	45.6	44.5	44.9	44.7	44.6	44.6	-3.5

Sources: Statistics Sweden and own calculations.

Appendix A – Calculation assumptions

The calculation methods used in the estimate of public finances during the period 2017–2099 are discussed in more detail below.

Demographic assumptions

The estimate is based on Statistics Sweden’s population forecast of May 2011 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	1.98	1.86	1.83	1.83	1.83	1.83
Average life expectancy, women	83.5	84.5	85.3	86.0	86.5	86.9
Average life expectancy, men	79.5	81.2	82.4	83.4	84.1	84.7
Net migration, thousands	49.9	22.1	21.1	20.1	19.6	19.1

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 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 consumption 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 2017 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 2016. This means that productivity at base prices increases somewhat since the capital deterioration increases somewhat more than the hours.

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.

Production in the general government sector is derived from general government consumption and an assumption that this consumption is generated by a gradually and 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.

Table A.2 Macroeconomic assumptions

Annual percentage change and per cent

	2010	2015	2020	2030	2040	2050	2060
Percentage change							
Population aged 15-74	1.0	0.3	-0.1	0.3	0.0	0.1	0.2
Labour force, 15-74 years	1.1	0.4	0.0	0.1	0.2	0.1	0.1
Number of employed, 15-74 years	1.1	1.7	0.0	0.1	0.2	0.1	0.1
Hours worked	3.2	2.1	0.0	0.1	0.2	0.1	0.2
Business sector productivity	3.5	1.5	2.4	2.2	2.2	2.2	2.2
GDP, fixed prices	6.1	3.6	2.0	1.9	2.2	2.1	2.2
GDP per capita	5.3	3.0	1.6	1.7	2.1	1.9	2.1
GDP productivity	2.8	1.5	2.0	1.9	2.0	2.0	2.1
GDP Deflator	1.0	1.5	2.3	2.2	2.0	2.0	1.8
CPI, annual average	1.2	2.5	2.0	2.0	2.0	2.0	2.0
Hourly wages	-0.1	3.1	4.4	4.1	4.0	4.0	3.9
Per cent							
Real interest	1.7	1.7	3.0	3.0	3.0	3.0	3.0
Employment ratio, 15-74 years	64.7	66.7	67.2	66.9	66.5	67.8	66.7
ILO unemployment, 15-74 years	8.4	5.7	5.2	5.1	5.1	4.9	4.9

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
Taxes and charges	45.4	44.4	44.3	44.3	44.1	43.9	44.0
Household direct taxes and charges							
Percentage of GDP	15.8	15.6	15.7	15.7	15.5	15.3	15.4
Implicit tax rate for direct taxes	23.9	23.7	24.0	24.0	24.0	24.0	24.0
Tax base for direct taxes as percentage of GDP	55.1	54.2	54.2	54.1	53.4	52.6	52.9
Implicit tax rate for charges	5.5	5.6	5.6	5.6	5.6	5.6	5.6
Tax base for charges as percentage of GDP	44.6	44.0	43.9	44.0	44.0	44.1	44.1
Corporate direct taxes							
Percentage of GDP	3.4	3.5	3.3	3.1	3.1	3.2	3.2
Implicit tax rate	11.5	11.3	10.8	10.3	10.3	10.3	10.3
Tax base as percentage of GDP	29.6	30.9	30.9	30.5	30.5	30.7	30.7
Indirect taxes ¹							
Percentage of GDP	14.1	13.4	13.3	13.5	13.4	13.4	13.3
Implicit tax rate	28.4	26.7	26.1	26.1	26.0	25.9	25.9
Tax base as percentage of GDP	48.4	48.6	49.3	50.0	50.0	50.0	50.0
Employer contributions and self-employed social security contributions ²							
Percentage of GDP	12.0	12.0	12.0	12.1	12.1	12.1	12.1
Implicit tax rate	29.5	29.0	29.0	29.0	29.0	29.0	29.0
Tax base as percentage of GDP	40.4	41.0	41.1	41.2	41.2	41.2	41.3

¹ Excluding wage-dependent indirect taxes.² 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 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 to mean 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
Total consumption	26.8	25.3	25.3	26.1	25.7	25.0	24.8
Childcare	1.6	1.6	1.6	1.5	1.4	1.4	1.4
Primary and secondary education	3.4	3.1	3.2	3.3	3.1	3.0	3.0
Adult education	0.9	0.9	0.8	0.8	0.7	0.7	0.6
Medical care	6.2	6.0	6.1	6.2	6.1	5.9	5.8
Care of the elderly	3.6	3.5	3.7	4.4	4.7	4.8	4.9
Other activities	11.0	10.2	9.9	9.9	9.5	9.2	8.9

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. In the calculations, pensions are projected in accordance with the rules currently applied. Other transfer payments are assumed to rise in line with wages. This also means that the “ceilings” applied in the social insurance systems are assumed to be raised in pace 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
Total transfer payments	19.5	17.3	17.0	16.9	16.3	15.6	15.8
Transfer payments to households	16.2	14.3	14.1	13.9	13.3	12.7	12.9
Old-age	8.5	8.1	8.2	8.0	7.4	6.8	7.0
Ill health	3.0	2.3	2.3	2.4	2.4	2.4	2.4
Children/studies	2.2	2.0	2.0	2.0	1.9	1.9	1.9
Labour market	1.1	0.6	0.5	0.4	0.5	0.4	0.4
Other	1.4	1.2	1.1	1.1	1.1	1.1	1.1
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
Revenue	6.9	6.7	6.7	6.5	6.3	6.4	6.5
Fees	6.2	6.1	6.0	6.1	6.1	6.1	6.1
Interest, dividends, etc.	0.7	0.6	0.7	0.4	0.3	0.3	0.5
Expenditure	6.7	6.7	6.8	6.7	6.3	5.7	5.9
Pensions	6.6	6.6	6.7	6.6	6.2	5.6	5.8
Other	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Net lending	0.2	-0.0	-0.1	-0.2	0.1	0.7	0.7
Net financial assets	26.7	21.0	16.9	10.5	7.0	9.3	13.4

Sources: Statistics Sweden and authors' 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
Total expenditure	50.6	46.5	46.5	46.0	43.7	40.7	38.7
Age-related ¹	250.4	23.8	24.0	240.7	24.0	230.1	230.3
Pensions ²	8.5	8.1	8.2	8.0	7.4	6.8	7.0
Guarantee pensions	0.6	0.4	0.4	0.4	0.3	0.3	0.3
Old-age pensions	6.6	6.6	6.7	6.6	6.1	5.6	5.8
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
Medical care	6.2	6.0	6.1	6.2	6.1	5.9	5.8
Care of the elderly/disabled	3.6	3.5	3.7	4.4	4.7	4.8	4.9
Childcare	1.6	1.6	1.6	1.5	1.4	1.4	1.4
Education	4.3	4.0	4.0	4.1	3.8	3.7	3.7
Unemployment benefit	1.1	0.6	0.5	0.4	0.5	0.4	0.4
Other age-related expenditure	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest expenditure	1.2	0.9	0.9	-0.4	-1.6	-3.3	-5.3
Total revenue	50.6	49.5	49.2	49.0	48.6	48.4	48.7
of which capital income	1.9	2.0	2.0	1.6	1.5	1.6	1.8
of which, pension system	0.7	0.6	0.7	0.4	0.3	0.3	0.5
Assumptions							
Labour productivity growth, GDP level	3.1	1.5	1.9	1.9	2.0	2.0	2.1
GDP growth	6.1	3.6	2.0	1.9	2.2	2.1	2.2
Unemployment	8.4	5.7	5.2	5.1	5.1	4.9	4.9
Population aged 65 and over as percentage of total population	18.5	19.9	20.8	22.7	23.9	23.9	25.0

¹ 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.

² In addition to old-age pension, pensions also include sickness and activity compensation.

Sources: Statistics Sweden and own calculations.

Appendix B – Comparison with the European Commission’s projections of demographically dependent expenditure

A working group (Ageing Working Group, AWG) under the Economic Policy Committee (EPC), together with the European Commission, has made projections for the development of demographically dependent expenditure up to 2060. These estimates were last reported in 2012.⁴⁶ The calculations in the convergence programme are, however, based on the data presented to the Riksdag in the 2012 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 2010 – 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

	2010	2020	2030	2040	2050	2060
Population aged 15-74						
EPC	100.0	103.9	106.2	109.4	110.4	112.6
Convergence programme	100.0	102.9	104.6	106.7	106.9	108.9
Employed						
EPC, aged 15-74	100.0	107.7	110.3	111.6	113.1	115.4
Convergence programme, aged 15-74	100.0	106.8	108.0	109.6	112.0	112.2
Hours						
EPC	100.0	107.7	110.3	113.1	115.5	115.7
Convergence programme	100.0	107.3	108.4	110.1	112.6	112.8
ILO unemployment, percentage points						
EPC, aged 15-74	8.5	6.6	6.5	6.5	6.5	6.5
Convergence programme, aged 15-74	8.4	5.2	5.1	5.1	4.9	4.9
Labour productivity						
EPC	100.0	117.0	136.3	158.7	184.9	215.4
Convergence programme	100.0	121.4	146.1	177.0	215.8	263.3
GDP						
EPC	100.0	123.4	147.1	175.7	208.8	243.7
Convergence programme	100.0	129.8	158.5	195.3	243.3	297.1
GDP per capita						
EPC	100.0	114.6	130.3	151.0	174.2	198.3
Convergence programme	100.0	122.5	144.3	174.7	213.6	257.2

Sources: European Commission and own calculations.

The population forecast applied in the ECP was prepared by Eurostat in 2010. The calculations in the convergence programme are based on

⁴⁶The 2012 Ageing report: Economic and budgetary projections for the EU 27 Member States (2010–2060).

Statistics Sweden's population forecast from May 2011. In the ECP calculations, the population is growing faster. The ECP also has a more sizeable increase both in hours worked and the number of people in employment. This is a direct consequence of the stronger increase in population.

In the convergence programme, unemployment as assumed to be adjusted to a structural level of about 5.0 cent. In the ECP, the level is 6.5 per cent. Productivity growth is stronger in the convergence programme than in EPC's calculations.

One reason for the GDP level for 2060 being higher in the convergence programme is the higher productivity level. Per capita GDP also reaches a higher level in the convergence programme.

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

Percentage of GDP

	Change 2010–2020			Change 2010–2060		
	CP	EPC	CP – EPC	CP	EPC	CP – EPC
Pensions	-0.3	0.0	-0.3	-1.5	0.6	-2.1
Medical care	-0.1	0.2	-0.3	-0.4	0.7	-1.1
Care of the elderly/disabled	0.1	0.2	-0.1	1.3	2.5	-1.2
Education	-0.3	-0.2	-0.1	-0.6	0.0	-0.6
Unemployment benefit	-0.6	0.0	-0.6	-0.7	0.0	-0.7
Total	-1.4	0.2	-1.6	-1.9	3.8	-5.7

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, but also because GDP ratios are affected by the ECP applying a weaker GDP trend. 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 convergence programme's lower cost trend for unemployment benefit is due to the lower unemployment level and the fact that the ceiling for the unemployment benefit funds is fixed in the calculations up to 2016.

Appendix C – Tables

Table C.1a Macroeconomic prospects

Annual percentage change

	SEK bn	2011	2012	2013	2014	2015
Real GDP	3 462	3.9	0.4	3.3	3.7	3.6
Nominal GDP	3 495	4.9	1.3	4.5	5.2	5.2
Components of real GDP						
Private consumption expenditure	1 666	2.1	1.5	3.6	3.7	3.4
Government consumption expenditure	928	1.8	0.5	0.2	0.3	0.1
Gross fixed capital formation	640	5.8	1.4	5.3	8.1	7.9
Changes in inventories and net acquisition of valuables ¹	44	0.7	-0.7	0.0	0.0	0.0
Exports of goods and services	1 748	6.8	0.3	6.3	7.2	6.9
Imports of goods and services	1 530	6.1	0.4	6.1	7.5	7.2
Contributions to real GDP growth						
Final domestic demand	3 234	2.6	1.1	2.8	3.4	3.2
Changes in inventories and net acquisition of valuables	44	0.7	-0.7	0.0	0.0	0.0
External balance of goods and services	218	0.7	0.0	0.5	0.4	0.3

¹ Contribution to real GDP growth.

Sources: Statistics Sweden and own calculations.

Table C.1b Price developments

Annual percentage change

	Level	2011	2012	2013	2014	2015
GDP deflator	101.0	1.0	0.9	1.2	1.4	1.5
Private consumption deflator	101.3	1.3	1.2	1.5	1.5	1.7
HICP ¹	112.3	1.4	0.9	1.1	1.2	1.4
Public consumption deflator	102.3	2.3	2.2	2.4	2.6	3.0
Investment deflator	100.4	0.4	1.0	1.0	0.9	0.7
Export price deflator (goods and services)	98.9	-1.1	0.0	0.4	0.9	0.9
Import price deflator (goods and services)	99.6	-0.4	0.8	1.2	1.2	1.2

Note: All deflators are indices. 2010=100.

¹ Index, 2005=100.

Sources: Statistics Sweden and own calculations.

Table C.1c Labour market developments

Annual percentage change if not otherwise stated

	Level	2011	2012	2013	2014	2015
	2011					
Employment, persons ¹	4 642	2.1	-0.1	0.3	1.4	1.7
Employment, hours worked ²	756 500	2.3	-1.2	0.5	1.3	2.1
Unemployment rate (%) ³	378	7.5	7.8	7.7	6.9	5.7
Labour productivity, persons ⁴	654	2.2	0.4	3.0	2.4	1.9
Labour productivity, hours worked ⁵	401	2.1	1.6	2.8	2.4	1.5
Compensation of employees ⁶	1 833	3.3	2.7	3.6	5.0	5.2
Compensation per employee ⁷	398 282	1.1	2.8	3.3	3.6	3.5

¹ Occupied population, national accounts definition. Level in thousands.

² National accounts definition. Level in ten thousands.

³ Level in thousands. Per cent of labour force.

⁴ Real GDP per person employed, SEK.

⁵ Real GDP per hour worked, SEK.

⁶ SEK billion.

⁷ SEK.

Sources: Statistics Sweden and own calculations.

Table C.1d Sectoral balances

Per cent of GDP

	2011	2012	2013	2014	2015
Net lending/borrowing vis-à-vis the rest of the world	8.4	6.3	6.4	6.3	6.2
<i>of which</i>					
Balance on goods and services	6.2	5.7	5.6	5.5	5.4
Balance of primary incomes and transfers	1.0	0.7	0.9	0.9	1.0
Capital account	-0.1	-0.2	-0.2	-0.2	-0.2
Net lending/borrowing of the private sector	6.8	6.4	5.8	4.7	3.2
Net lending/borrowing of the general government	0.3	-0.1	0.5	1.7	3.0
Statistical discrepancy	1.3	0.0	0.0	0.0	0.0

Sources: Statistics Sweden and own calculations.

Table C.2a General government budgetary prospects

Per cent of GDP

	SEK bn	2011	2012	2013	2014	2015
	2011	2011	2012	2013	2014	2015
Net lending by sub-sector						
General government	10	0.3	-0.1	0.5	1.7	3.0
Central government	1	0.0	-0.1	0.8	1.8	3.1
Local government	-10	-0.3	-0.2	-0.1	-0.1	-0.1
Social security funds	19	0.5	0.2	-0.2	0.0	0.0
General government						
Total revenue	1 797	51.4	51.7	51.2	50.8	50.8
Total expenditure	1 787	51.1	51.7	50.7	49.1	47.8
Net lending/borrowing	10	0.3	-0.1	0.5	1.7	3.0
Interest expenditure	36	1.0	1.0	1.0	1.0	0.8
Primary balance	46	1.3	0.9	1.5	2.6	3.8
One-off and other temporary measures	1	0.0	0.0	0.0	0.0	0.0
Selected components of revenue						
Total taxes	1 299	37.2	37.6	37.4	37.3	37.4
Taxes on production and imports	645	18.4	18.7	18.6	18.4	18.3
Current taxes on income, wealth, etc.	654	18.7	18.9	18.8	18.9	19.1
Capital taxes	0	0.0	0.0	0.0	0.0	0.0
Social contributions	265	7.6	7.6	7.5	7.5	7.5
Property income	79	2.3	2.2	2.1	1.9	2.0
Other	153	4.4	4.3	4.1	4.0	3.9
Total revenue	1 797	51.4	51.7	51.2	50.8	50.8
Tax burden	1 552	44.4	44.9	44.7	44.6	44.6
Selected components of expenditure						
Compensation of employees + intermediate consumption	811	23.2	23.3	22.8	22.2	21.7
Compensation of employees	490	14.0	14.1	13.8	13.5	13.3
Intermediate consumption	321	9.2	9.2	9.0	8.7	8.4
Social payments	617	17.7	18.2	18.0	17.4	16.9
<i>of which</i> Unemployment benefits	31	0.9	0.9	0.8	0.7	0.6
Social transfers in kind supplied via market producers	126	3.6	3.8	3.8	3.8	3.8
Social transfers other than in kind	491	14.1	14.4	14.1	13.6	13.2
Interest expenditure	36	1.0	1.0	1.0	1.0	0.8
Subsidies	52	1.5	1.5	1.4	1.3	1.3
Gross fixed capital formation	120	3.4	3.4	3.3	3.1	3.1
Capital transfers	11	0.3	0.3	0.3	0.3	0.3
Other	141	4.0	4.0	3.9	3.8	3.6
Total expenditure	1 787	51.1	51.7	50.7	49.1	47.8
Government consumption (nominal)	928	26.5	26.9	26.4	25.8	25.3

Sources: Statistics Sweden and own calculations.

Table C.2b Breakdown of revenue

Per cent of GDP if not otherwise stated

	SEK bn 2011	2011	2012	2013	2014	2015
Total revenue at unchanged policies	1 797	51.4	51.7	51.2	50.8	50.8
Discretionary revenue measures ¹	-7	-0.2	-0.1	-0.1	0.0	0.0

¹ Change in comparison with preceding year.

Sources: Statistics Sweden and own calculations.

Table C.2c Expenditure to be excluded from the expenditure benchmark

Per cent of GDP

	SEK bn 2011	2011	2012	2013	2014	2015
Expenditure on EU programmes fully matched by EU funds revenue	0	0.0	0.0	0.0	0.0	0.0
Expenditure fully matched by mandated revenue increases	0	0.0	0.0	0.0	0.0	0.0
Non-discretionary changes in unemployment benefit expenditure ¹	5	0.1	-0.1	0.0	0.1	0.1

¹ Change in comparison with preceding year.

Source: Statistics Sweden and own calculations.

Table C.3 General government expenditure by function

Per cent of GDP

	COFOG code	2010
General public services	1	7.0
Defence	2	1.6
Public order and safety	3	1.4
Economic affairs	4	4.6
Environmental protection	5	0.3
Housing and community amenities	6	0.7
Health	7	7.1
Recreation, culture and religion	8	1.2
Education	9	7.0
Social protection	10	21.6
Total expenditure		52.5

Source: Statistics Sweden and own calculations.

Table C.4 General government debt developments

Per cent of GDP

	2011	2012	2013	2014	2015
Gross debt	38.4	37.7	35.4	31.8	27.5
Change in gross debt ratio	-1.1	-0.7	-2.3	-3.6	-4.2
Contribution to changes in gross debt					
Primary balance	-1.3	-0.9	-1.5	-2.6	-3.8
Interest expenditure	1.0	1.0	1.0	1.0	0.8
Stock-flow adjustment	1.1	-0.2	-0.2	-0.2	0.3
<i>of which</i>					
Differences between cash and accruals	-0.7	-0.4	-0.4	-0.4	-0.4
Privatisation proceeds	-0.7	-0.2	-0.2	-0.1	0.4
Valuation effects and others	2.5	0.4	0.4	0.3	0.3
Implicit interest rate on debt	2.7	2.6	2.8	2.9	2.8

Sources: Statistics Sweden and own calculations.

Table C.5 Cyclical developments

Per cent of GDP if not otherwise stated

	2011	2012	2013	2014	2015
Real GDP growth (%)	3.9	0.4	3.3	3.7	3.6
Net lending of general government	0.3	-0.1	0.5	1.7	3.0
Interest expenditure	1.0	1.0	1.0	1.0	0.8
One-off and other temporary measures	0.0	0.0	0.0	0.0	0.0
Potential GDP growth (%)	2.1	2.5	2.7	2.6	2.8
Output gap	-1.0	-2.7	-2.1	-0.9	-0.4
Cyclical budgetary component	-0.5	-1.5	-1.2	-0.5	-0.2
Cyclically-adjusted balance	0.8	1.4	1.7	2.2	3.2
Cyclically-adjusted primary balance	1.8	2.4	2.7	3.2	4.0
Structural balance	0.8	1.4	1.7	2.2	3.2

Sources: Statistics Sweden and own calculations.

Table C.6 Divergence from previous update

	2011	2012	2013	2014	2015
Real GDP growth (%)					
Previous update	4.6	3.8	3.6	2.8	–
Current update	3.9	0.4	3.3	3.7	3.6
Difference	-0.7	-3.4	-0.3	0.9	–
General government net lending (% of GDP)¹					
Previous update	0.6	2.0	2.9	3.7	–
Current update	0.3	-0.1	0.5	1.7	3.0
Difference	-0.3	-2.1	-2.4	-2.0	–
General government gross debt (% of GDP)					
Previous update	36.8	33.4	28.8	23.6	–
Current update	38.4	37.7	35.4	31.8	27.5
Difference	1.6	4.3	6.6	8.2	–

¹ According to EDP.

Sources: Statistics Sweden and own calculations.

Table C.7 Long-term sustainability of public finances

Per cent of GDP

	2007	2010	2020	2030	2040	2050	2060
Total expenditure	49.0	50.6	46.5	46.0	43.7	40.7	38.7
<i>of which</i>							
Age-related expenditure	24.3	25.4	24.0	24.7	24.0	23.1	23.3
<i>of which</i>							
Pension expenditure	7.9	8.5	8.2	8.0	7.4	6.8	7.0
<i>of which</i>							
Social security pension	0.7	0.6	0.4	0.4	0.3	0.3	0.3
Old-age and early pensions	5.9	6.6	6.7	6.6	6.1	5.6	5.8
Other pensions (disability- and survivors-)	0.8	0.7	0.5	0.4	0.3	0.3	0.3
Occupational pensions (if in general government)	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Health care	6.1	6.2	6.1	6.2	6.1	5.9	5.8
Long-term care	3.5	3.6	3.7	4.4	4.7	4.8	4.9
Educational expenditure	4.4	4.3	4.0	4.1	3.8	3.7	3.7
Other age-related expenditures	2.4	2.7	2.1	2.0	1.9	1.9	1.8
Interest expenditure	1.8	1.2	0.9	-0.4	-1.6	-3.3	-5.3
Total revenue	52.5	50.6	49.2	49.0	48.6	48.4	48.7
<i>of which</i>							
Property income	2.3	1.9	2.0	1.6	1.5	1.6	1.8
<i>of which</i>							
From pensions contributions (or social contributions if appropriate)	0.9	0.7	0.7	0.4	0.3	0.3	0.5
Pension reserve fund assets	29.2	27.6	17.4	10.4	6.8	9.4	13.7
<i>of which</i>							
Consolidated public pension fund assets (assets other than government liabilities)	21.4	21.6	11.4	7.0	4.8	7.0	10.6
Assumptions							
Labour productivity	0.2	3.1	1.9	1.9	2.0	2.0	2.1
Real GDP growth	3.3	6.1	2.0	1.9	2.2	2.1	2.2
Unemployment rate	6.1	8.4	5.2	5.1	5.1	4.9	4.9
Population aged 65+ over total population	17.5	18.5	20.8	22.7	23.9	23.9	25.0

Sources: Statistics Sweden and own calculations.

Table C.7a Contingent liabilities

Per cent of GDP

	2011
Public guarantees	45.6

Sources: Statistics Sweden and own calculations.

Table C.8 Basic assumptions

Annual average if not otherwise stated

	2011	2012	2013	2014	2015
Short-term interest rate (annual average) ¹	1.69	1.19	1.37	2.14	3.14
Long-term interest rate (annual average) ²	2.61	1.91	2.48	3.29	4.24
USD/ € exchange rate (annual average)	1.39	1.30	1.30	1.30	1.30
Nominal effective exchange rate vis-á-vis the € ³	9.03	8.83	8.75	8.70	8.70
World. GDP growth ⁴	3.8	3.4	4.1	5.0	4.9
EU GDP growth ⁴	1.5	-0.3	0.9	2.0	2.2
Growth of relevant foreign markets ⁴	6.0	2.5	6.5	7.0	6.5
Oil prices (Brent USD/barrel. annual average)	109	114	118	121	124

¹ 6-months interest rate.

² 10-year government bond yield.

³ SEK/€. annual average.

⁴ Annual percentage change.

Sources: Statistics Sweden and own ca



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