Sweden's Convergence Programme 2018

Introduction

In accordance with Council Regulation (EC) No 1466/97 of 7 July 1997 on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies, Sweden submitted its first Convergence Programme to the European Commission in December 1998. The programme was evaluated and approved by the Council in spring 1999. Under the Regulation an update of the Convergence Programme has to be submitted annually; as was done from 1999 to 2009.

As of 2010 reporting within the Stability and Growth Pact has been adapted to the European Semester in order to strengthen the surveillance of economic policies. The Convergence Programme and the National Reform Programme are therefore submitted each spring. This enables budgetary and structural policy to be assessed consistently and recommendations to be made to Member States while their budget proposals are still in the preparatory phase.

Sweden's Convergence Programme for 2018 is based on the Spring Fiscal Policy Bill for 2018 (Bill 2018/16:100), which was presented by the Government to the Riksdag (Swedish Parliament) on 16 April 2018. The Parliamentary Committee on Finance was informed about the Convergence Programme on 24 April 2018. The Government adopted the Convergence Programme on 26 April 2018.

The Parliamentary Committee on European Union Affairs was informed of the European Commission’s proposals for country-specific recommendations in June 2017.

1 Economic policy framework and targets

1.1 Fiscal rules

The fiscal framework consists of several fiscal rules. These rules include a general government net lending target, an expenditure ceiling for central government, a local government balanced budget requirement and a debt anchor.

General government net lending target

The purpose of having a governing target for general government net lending is to contribute to strengthening control of the long-term development of general government finances. The net lending target also makes clear the need to set priorities among expenditure areas, or to raise taxes. In addition, fiscal policy has to be capable of contributing to economic stimulus in contractionary periods and f slowing the economy down in expansionary periods. Higher net lending in good times is therefore needed to provide space for lower net lending when times are worse. This is made possible by formulating the net lending target as an average over an economic cycle (see also section 3.4).

Following a proposal in the Spring Fiscal Policy Bill 1997, the Riksdag decided to introduce a surplus target for general government finances of 2 per cent of GDP on average over an economic cycle. The target was phased in over a three-year period and full application began from 2000. However, the Riksdag decided, following a proposal in the Spring Fiscal Policy Bill 2007, to lower the net lending target from 2 per cent to 1 per cent of GDP on average over an economic cycle. The reason for the proposal was that Eurostat had decided that net lending in the premium pension system would no longer be included in the general government sector in the National Accounts. This reduced general government net lending by around 1 per cent of GDP.

A cross-party committee of inquiry, the Surplus Target Committee, was tasked in June 2015 with reviewing the target for general government net lending (terms of reference 2015:63). Its final report was submitted in October 2016 (SOU 2016: 67). In the final report, the Committee set out its views on lessons learnt from the fiscal policy framework thus far, its assessment of what the future level of the general government net lending target should be and the impact of the target level on general government finances and the Swedish economy. The Government assessment in the light of the committee's proposal, was the that the surplus target level should be changed to 0.33 per cent of GDP over an economic cycle and that the fiscal policy framework should be supplemented with a debt anchor for general government consolidated gross debt. In the Budget Bill for 2018 the Government proposed, in accordance with the proposal of the Surplus Target Committee, that the surplus target level should be

changed to an average of 0.33 per cent of GDP over an economic cycle and that the fiscal policy framework should be augmented with a debt anchor for general government consolidated gross debt. The Riksdag adopted the Government's proposal (Committee Report 2017/18:FiU1, Riksdag Comm. 2017/18:54).

The Government has also made assessment that monitoring of the surplus target should be strengthened and that the Swedish Fiscal Policy Council should be assigned a clearer role in monitoring the fiscal policy framework (Govt Bill 2016/17:100).

The Government has given an account of the fiscal policy framework in the communication Fiscal policy framework (Govt comm. 2017/18:207). The changes to the fiscal policy framework are being applied as of work on the budget for 2019, i.e. as of this convergence programme.

Expenditure ceiling and a stringent budgetary process

The expenditure ceiling covers central government primary expenditure; i.e. excluding interest expenditure, and expenditure in the old age pension system. The Swedish Budget Act (2011:203) requires the Government to propose an expenditure ceiling for the third budget year ahead in the budget bill. Then it is the Riksdag that sets the expenditure ceiling. A multi-year expenditure ceiling can be used as a tool to achieve the surplus target. Together with the general government net lending target, the expenditure ceiling governs the total take of taxes and contributes to preventing a situation in which taxes must be gradually raised as a result of a lack of control over expenditure, or in which temporary increases in income are used for permanent increases in expenditure.

The expenditure ceiling is the overarching restriction for the budgetary process in terms of total expenditure. The principle is that expenditure ceiling levels decided by the Riksdag are not changed except to make technical adjustments. The Budget Act also requires the Government to take measures if there is risk of exceeding an expenditure ceiling set. The established practice is to have a budgeting margin of a certain size under the expenditure ceiling. This is primarily intended to act as a buffer should the development of the economy lead to expenditure growth not expected when the level of the expenditure ceiling was set.

A well-organised, stringent budgetary process is of central importance in achieving the numerical fiscal rules. The budgetary process compares different expenditures with one another and expenditure increases are tested in the light of a predetermined total fiscal space bounded by the expenditure ceiling and the net lending target. The main principle is that proposed expenditure increases in one expenditure area must be covered by proposed expenditure reductions in the same area. It is also of central importance that the central government budget is transparent and comprehensive. The Government's proposed budget has to include all income and expenditure, as well as other payments that have an impact on

the central government borrowing requirement (the "completeness principle"). Furthermore, central government revenue and expenditure are budgeted and reported gross under income headings and appropriations (the "gross principle"). This means that expenditure has to be reported on the expenditure side of the budget, while income have to be reported on the income side. A further main principle is that expenditure has to be booked in the year when it is intended to be used.

Local government balanced budget requirement

The general government net lending target includes net lending in the local government sector, which mainly consists of municipalities and county councils. However, it is net income, not net lending, that determines whether municipalities and county councils comply with the balanced budget requirement of the Swedish Local Government Act (2017:725). This requirement states the main rule that every municipality and county council must budget for net income in balance. Negative outcomes of net income have to be corrected within three years unless there are exceptional reasons.

The Swedish Local Government Act requires municipalities and county councils to have sound financial management in their operations. This means, for instance, that municipalities and county councils have to set their own financial targets and be accountable for long-term sustainable finances. It has long been a fundamental principle that each generation has to meet its own costs. The balanced budget requirement sets a minimum level, but net income generally needs to be higher to fulfil the sound financial management requirement of the Swedish Local Government Act.

Debt anchor

The fundamental reasons for the surplus target are sustainability and scope for action in stabilisation policy. So, essentially it is linked to debt and wealth levels rather than to net lending at a particular point in time. However, general government gross debt is a key factor in assessing a country's creditworthiness and the scope for active fiscal policy for stabilisation over the economic cycle. Even though the surplus target is more suitable as an operational target in the budgetary process, the size of gross debt and net financial wealth play a central role in decisions about the size of the surplus target. As a member of the EU, Sweden is also bound by the EU debt criterion, which states that general government consolidated gross debt must not exceed 60 per cent of GDP. The fiscal policy framework has therefore been supplemented with a debt anchor for consolidated gross general government debt. The level of the debt anchor, which is a guideline for the level of the debt, has been set at 35 per cent of GDP.

In the spring fiscal policy bill the Government has to give an account each year of the development of general government consolidated gross debt. If this debt deviates from the debt anchor by more than 5 per cent of GDP, the Government has to present a communication to the Riksdag at the same time as the spring fiscal policy bill. The debt is measured as the outcome in the national accounts for the preceding year and according to the forecast for the present year or the budget year. In the communication the Government has to give an account of the cause of the deviation and how the Government intends to handle it.

1.2 Sweden's medium-term budgetary objective

As a member of the EU, Sweden must live up to the regulations concerning general government finances in the Stability and Growth Pact. It includes provisions that the general government deficit must not exceed 3 per cent of GDP and general government debt must not exceed 60 per cent of GDP. Each Member State also has a medium-term budgetary objective (MTO) for its structural balance; that is, cyclically adjusted general government net lending, excluding one-time effects. The level of MTO is decided by each Member State, but it must be compatible with a minimum level calculated by the EU Commission. Sweden's MTO is -1 per cent of potential GDP (see section 3.4).

1.3 Monetary policy objective

The Riksbank is responsible for monetary policy in Sweden. The objective of monetary policy is to maintain price stability, as laid down in the Sveriges Riksbank Act (1988:1385). Amendments to the Sveriges Riksbank Act adopted in 1999 gave the Riksbank greater autonomy. Under the Instrument of Government no other authority may determine how the Riksbank makes decisions on monetary policy issues. The independence of the decision-making Executive Board is also underlined in the Sveriges Riksbank Act, which states that the members of the Board may neither seek nor receive instructions when fulfilling their monetary policy duties. The objective of monetary policy set by the Sveriges Riksbank Act is to maintain price stability. The Riksbank has specified this as meaning an annual change of 2 per cent in the consumer price index (CPI) with a fixed interest rate (CPIF).[1]

At the same time as monetary policy is focused on achieving the inflation target, it has to support the objectives of general economic policy in order to promote the achievement of sustainable growth and high employment. This is achieved by the Riksbank also striving to stabilise

[1] At its monetary policy meeting in September 2017 the Executive Board of the Riksbank decided to change the target variable for monetary policy from CPI to CPIF and to start using a variation band to illustrate that the development of inflation is uncertain.

production and employment around long-term sustainable paths, in addition to stabilising inflation around the inflation target. Consequently, the Riksbank conducts what is termed a flexible inflation target policy. However, the inflation target has priority over the other targets.

It takes time for monetary policy to achieve full impact on inflation and the real economy. Monetary policy is therefore guided by forecasts of economic developments. The information published by the Riksbank includes an assessment of the future development of the repo rate. But it should be stressed that the interest rate path is a forecast, and not a promise.

When each monetary policy decision is made, the Executive Board makes an assessment of what interest rate path is needed for the repo rate and of what other supplementary measures may be needed for monetary policy to be well balanced. This normally involves finding a suitable balance between stabilising inflation around the inflation target and stabilising the real economy. There is no general answer to the question of how quickly the Riksbank aims to return inflation to the 2 per cent target. In some situations a rapid return may have undesired effects on production and employment, while a slow return may weaken the credibility of the inflation target. In general, the ambition has been to adjust the interest rate and the interest rate path so that inflation is expected to be fairly close to the target within two years.

A variation band is used to illustrate that inflation will not be exactly 2 per cent in every month; this band stretches between 1 and 3 per cent, capturing about three-quarters of the historical monthly outcomes of CPIF inflation. The Riksbank constantly seeks to ensure that inflation reaches 2 per cent, irrespective of whether it is initially inside or outside the variation band.

The mission of the Riksbank under the Sveriges Riksbank Act also includes promoting a safe and efficient payments system. Risks associated with developments in financial markets are also taken into account in monetary policy decisions. But when it comes to preventing an unbalanced development of asset prices and debt, the central role is mainly played by a well-functioning regulatory framework and effective supervision. Monetary policy is only a supplement.

In some situations, such as during the financial crisis in 2008 and 2009, the repo rate and the interest rate path may need to be supplemented with other measures to ensure financial stability and the effective impact of monetary policy.

The Riksbank seeks to ensure that its communication is open, factual, comprehensible and current, This makes it easier for actors in the economy to take good economic decisions. Monetary policy is also easier to evaluate.

On 22 December 2016 the Government decided to appoint a cross-party committee to review the monetary policy framework and the Sveriges Riksbank Act (terms of reference 2016:114, terms of reference 2017:57 and terms of reference 2017:100).

In September 2003, Sweden held a referendum on the introduction of the euro. The result of the referendum, which was "no", did not lead to any changes in monetary policy or exchange rate policy. The Government is responsible for overall currency 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 currency policy regime remains unchanged. 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.

1.4 The Government's economic policy

Measures adopted

Since taking office the Government has conducted a responsible fiscal policy while taking urgent initiatives. The Government's reforms have contributed to strong growth, rapidly rising employment and falling unemployment. The large deficit in 2014 has been turned into considerable surpluses. With strong government finances, and more and more people in work, the Government has been able to make vigorous investments in jobs, schools and the climate. Table 1.1 presents the reforms proposed by the Government in the Budget Bill for 2018 that were then adopted by the Riksdag (Govt Bill 2017/18:1, Committee Report 2017/18:FiU10, Riksdag Comm. 2017/18:135).

Table 1.1 Reforms in the Budget Bill for 2018 (BB18)

Effect on general government net lending, SEK billions

	2018	2019	2020
More people in work	7.3	10.1	11.4
Sweden must have equitable knowledge-based education	2.4	4.6	7.0
Sweden will be a fossil-free welfare nation	5.0	7.9	10.0
Strengthened welfare system	7.8	13.6	18.9
The strength of Sweden's economy must benefit everyone	11.9	18.5	22.9
Sweden must be safe	6.7	8.3	9.7
Other reforms	2.7	1.9	2.0
Total reforms, BB18	**43.8**	**64.8**	**81.7**
Total financing, BB18	**3.4**	**4.9**	**8.8**
Effect on general government finances, BB18	**-40.3**	**-59.9**	**-72.9**

Source: Own calculations.

More people in work

The objective that Sweden will have the lowest unemployment rate in the EU in 2020 guides the Government's economic policy. Since the Government took office an additional 250 000 people in Sweden have found a job to go to. But far too many people still have difficulty getting a job, especially those who did not complete secondary school or were born outside Europe.

There must be more and easier paths to jobs. Several forms of employment support have been replaced with uniform support to make it easier for employers to hire workers. The Adult Education Initiative has been expanded. Special action has been taken to increase the possibilities for newly arrived immigrants and women born abroad to learn Swedish, get a job or run a business. This can remedy the labour shortage that is holding back growth in Sweden and strengthen Swedish competitiveness.

In Sweden it must be possible to find a home when you get a job or place on a study programme. Work on the housing policy package and the 22-point programme is continuing. New investments in infrastructure will be linked clearly to demands for housing construction. The planning and building process will be made more efficient.

Sweden must have many successful and innovative companies. The Government's new industrialisation strategy has been implemented in practice. This work is continuing at regional level. Public transport is being improved, as is central government service through more service offices and a new service organisation. The whole country must grow, with good possibilities of living, working and running a business, wherever people are living their lives.

To make it easier for more one-person companies to take the step to employing staff, "growth support" has been expanded. The possibilities for small, young companies to recruit and retain key persons have been improved by changing the taxation of employee options. The Government has also proposed changes in company taxation intended to improve neutrality between financing with equity and debt capital and to counter tax planning using interest deductions.

The Swedish model builds on fair competition and fair working conditions in the labour market. Swedish pay and conditions must apply to everyone working in Sweden. Unfair competition must be countered. The work environment must be improved to make it possible to work full time for a whole working life with good quality of life.

Sweden must have equitable knowledge-based education

Inequality in the school system must be remedied so that pupils will learn more. Everyone has to be given good opportunities to be equipped for continued education and training, the labour market and community life. All schools must be good schools.

The Government has made major investments in more equitable knowledge-based education. Investments have also been made for higher pay for teachers, stronger special needs education and better school health and welfare services. To ensure that pupils get help in time, funds have been allocated to implementing a reading/writing/arithmetic guarantee.

However, more measures are needed to achieve the Government's objective of equitable knowledge-based education. Following proposals from the Schools Commission the Government has introduced government support for stronger equity and knowledge development. Resources will be weighted in the light of pupils' circumstances to enhance

equity and improve learning outcomes for all pupils. The Government has allocated SEK 1 billion for 2018, SEK 3.5 billion for 2019 and SEK 6 billion per year as of 2020 for this support. This enhances equity and increases the possibilities for good knowledge development. The resources will go specifically to their intended use.

The Boost for Reading has been reinforced and extended. Compulsory schooling has been extended by making the pre-school class compulsory. A review will be conducted in order to improve the pre-school participation of newly arrived children. The Government has also proposed further measures to get more people to train as teachers and to improve pupil completion and quality in upper secondary school.

Sweden will be a fossil-free welfare nation

The present generation must be able to pass on to the next generation a society in which the major environmental problems have been solved. Sweden will be the world's first fossil-free welfare nation. This is why the Government has made the largest investments in the environment and climate in Sweden's history. The Government has more than doubled the environment budget. A climate policy framework with a climate act has been introduced. The Swedish Environmental Protection Agency makes the assessment that with the Government's policies Sweden will achieve the national climate targets in 2020.

Climate and environment work has been reinforced further. The Government has proposed a Green Industry Leap, which includes support for innovative projects and new technology to reduce greenhouse gas emissions from process industries, and the reinforcement of the Climate Leap. To reduce emissions from the transport sector a reduction obligation system and a bonus–malus system will be introduced in 2018. The use of electric vehicles and sustainable transport will be stimulated. A tax on air trips is being introduced on 1 April 2018.

The Government's target for 2040 is 100 per cent renewable electricity production. In the Budget Bill for 2018 a further SEK 2 billion was allocated in 2018–2020 to a continued and expanded programme of investment support for solar cells. Funds were also allocated to the Clean Seas initiative and to protect drinking water. The aim is to prevent water shortages, reduce the quantity of plastic in seas and nature, reduce the occurrence of environmental toxins, reduce eutrophication and strengthen the protection of marine areas.

Strengthened welfare system

Making welfare services of high quality available to everyone has a strong redistributive effect. The reinforcements put in place by the Government in the present electoral term mean that the Government has invested more than SEK 35 billion in health care, schools and social care in 2018 and more than that for the years to come. These are investments that both equalise living conditions and promote economic development. Demographic developments with greater numbers of older people and children increase the needs for welfare services. The Government has allocated

SEK 5 billion for 2019 and a further SEK 5 billion for 2010 in order to make a permanent increase in government grants to municipalities and county councils. This makes municipalities and county councils better able to strengthen health care, schools and social care and reduces the need to increase local government taxes.

Health care must be secure, tailored to needs and equal throughout the country. A patient billion has been introduced to shorten queues and improve coordination in health care. The Government has also made investments to improve the staffing situation in health care and develop these services. In all, the investments in the Budget Bill for 2018 mean that the resources for health care have been increased by almost SEK 5.5 billion compared with the Budget Bill for 2017.

During the electoral term maintenance support, large family supplement and parental benefit have been increased. Child allowance and the upper-secondary study grant in upper secondary student aid have been increased by SEK 200 per month. Maintenance support has been increased for children aged between 11 and 18. The financial security of people with sickness and activity compensation has been strengthened.

The earned income tax credit that was introduced means that pensions are taxed more heavily than wages. The Government intends to close that gap completely by 2020. Changes made for 2018 mean that the difference disappears for incomes up to about SEK 17 000 per month. To further improve the financial situation of pensioners, improvements to the housing supplement for pensioners have been put into effect.

Social insurance provides security and counters financial vulnerability. The social insurance ceiling has been raised and a tax reduction has been introduced for sickness and activity compensation.

The Government has also proposed introducing a tax reduction for trade union membership fees, which strengthens the Swedish model.

Sweden's welfare systems must be in order. The Government is continuing to intensify its work to combat unserious actors and criminals.

Sweden must be safe

Sweden must be a country where everyone is safe and secure, no matter where they live. The Government is making concerted efforts to address the threats to democratic society, such as terrorism, organised crime and hate crimes. More crimes must be prevented and solved. The causes of crime must be combatted. The Government has therefore proposed and announced additional funding for the Swedish Police Authority, the Swedish Security Service and the municipalities, as well as for care of young people and substance misusers.

Sweden's borders must be secure. To stop illegal drug and firearms trafficking the Government has proposed additional funding for the Swedish Customs. Police border controls of individuals have been strengthened and extended.

The Government has reinforced the capacity of Sweden's total defence through significant resource reinforcements of SEK 2.7 billion per year as of 2018.

Building security in collaboration is a cornerstone of Sweden's security policy. A development assistance budget of 1 per cent of gross national income in 2018 represents a substantial reinforcement. In the UN Security Council Sweden is working for further peace-building and conflict prevention measures.

Several cross-party agreements have been made in the Riksdag regarding migration policy, the fight against terrorism, defence and security policy and energy policy.

Table 1.2 Combined budgetary impacts of Government policy 2017-2021 in relation to the previous year

Changes in expenditure and revenue in relation to measures and funding adopted and announced las year and those now proposed and announced. Budgetary impact on general net lending. SEK billions

	2017	2018	2019	2020	2021
Expenditure changes[1]					
Change in ceiling-limited expenditure	26.4	25	10.2	11.5	-6.8
Adjustment for differences between the accounting principles in the central government budget and the National Accounts	-10.6	2.1	3.8	4.5	-0.4
of which, support to municipalities and county councils[2]	-8.8	0	0	0	0
of which, infrastructure investments funded by borrowing[3]	-0.4	1.4	3.3	3.9	-0.8
Total expenditure changes	15.9	27.1	13.9	16	-7.3
Revenue changes[1]					
Taxes, gross	6.7	-3.9	-4	-4.7	0
Indirect impact of taxes	1.4	2.1	0.5	1.3	0
Other revenue reforms	0.3	-1.4	-0.1	0	0
Total revenue changes, net	**8.4**	**-3.3**	**-3.7**	**-3.4**	**0**
Changes in expenditure and revenue, impact on general government net lending[1,4]	**-7.5**	**-30.3**	**-17.6**	**-19.4**	**7.3**
Per cent of GDP	-0.2	-0.6	-0.3	-0.4	0.1

Note: The amounts are rounded off and thus do not always agree with the total.
[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 budgetary effects of expenditure and revenue reforms, a minus sign indicates a weakening in general government finances compared with the preceding year.
[2] Refers to temporary support to municipalities and county councils.
[3] This item shows the change in net borrowing for road and rail investments. Net borrowing consists of the difference between new borrowing and amortisation.
[4] Excluding the indirect impact of expenditure reforms on the revenue side.
Source: Own calculations.

Table 1.2 presents the budgetary impacts of all proposals for and announcements of reforms and financing submitted by the Government to the Riksdag and that the Riksdag has either adopted or approved the estimates for. The budgetary effects are reported in relation to the preceding year and are part of the analysis of the change in structural balance and the direction of fiscal policy. However, the change in structural balance is also affected by factors other than the Government's proposals for reforms and funding. For instance, automatic budgetary strengthening contributes to stronger general government finances. Over time this strengthening affects the conditions for active policy, since it is

the net of these two factors that summarises the impact of central government on the change of the structural balance and the direction of fiscal policy.

The Government's further reform ambitions

The task of politics is to find solutions to social problems and lay the foundation for a better future. During this electoral period, reforms have been implemented to increase security, sustainability and equality throughout the country. The Government is now concluding the work of this electoral period with further proactive investments. Equality must increase. The welfare system must be expanded throughout the country. Sweden will be the world's first fossil-free welfare nation. The introduction of newly arrived immigrants needs to proceed at an even faster pace. Concerted national efforts are needed to deter and prevent crime, and to strengthen our democracy.

A firm political will can help ensure that our growing prosperity benefits everyone in the country. Sweden's collective strength can increase by prioritising joint investments for our future over major tax cuts. Policies that reduce economic disparities between different groups provide the conditions needed for a free and equal society. This is how our security and confidence in the future can grow.

When the Government took office, the general government deficit amounted to a total of SEK 60 billion. These major deficits have been turned into a surplus of more than SEK 50 billion. The central government debt-to-GDP ratio in 2018 is expected to be at its lowest level since 1977.

During this electoral period, a number of redistribution reforms have been implemented. These efforts must continue, and Sweden must be a nation of equality. Investments and reforms that strengthen redistribution and give everyone opportunities to take part in the labour market reduce gaps, increase trust among citizens and strengthen the economy. Equality and development are mutually reinforcing.

More people must get into work. The Government's objective that Sweden will have the lowest unemployment rate in the EU by 2020 guides our economic policy. Swedish employers stand ready to employ 100 000 people if they can find people with the right skills. This is why the Government is expanding the Adult Education Initiative by adding more places in vocational municipal adult education, folk high schools, vocational higher education institutions, and universities and higher education institutions, The Government is also creating opportunities for more extra jobs and is introducing an education and training obligation for newly arrived immigrants. All women and men must have the opportunity to enjoy the freedom and self-determination afforded by an earned income of their own. Knowledge, not low wages, is the way forward. Fair competition and fair working conditions in the labour market, including good working conditions and job security, are a prerequisite for the Swedish model. The Government supports the social

partners' ambition to jointly develop the labour market through entry agreements. Investments in roads and railways, housing construction and broadband will enable companies to grow and people to live and work throughout the country.

Welfare services must be available where people live, and must be reliable regardless of location in Sweden. More and more children are being born in Sweden and, thanks to better public health, we are living longer. For this reason, health care, schools, child care and elderly care need to be expanded throughout the country, working conditions improved and new smart solutions created to meet future staffing needs. In the coming decade, at least 200 000 more people will need to be employed in the sector. This expansion has begun. There are already more than 100 000 more people working in the welfare sector than when this Government took office. The positive trend of improved learning outcomes for Swedish pupils must be reinforced. Elderly people who have contributed to building our country should not pay higher taxes than wage earners. The strength of Sweden's economy must benefit everyone. Publicly financed welfare has a strong redistributive power. Sweden must continue to be a leading welfare nation. Economic inequality must be combated through active redistributive policy.

The Government has made the largest investments in the environment and climate in Sweden's history. Emissions from industry, housing and the transport sector are falling. The pace of investment in solar cells, wind, bioenergy and new technologies has increased to enable Sweden to achieve the goal of 100 per cent renewable electricity production by 2040. It is possible to combine reduced greenhouse gas emissions with economic development. Sustainability in trade must increase, and consumption-based emissions must fall. Sweden's valuable natural environment must be managed and protected for both outdoor activities and biodiversity. The Riksdag has adopted a climate act that forms the basis of the Government's climate policy efforts. Sweden is now leading climate adaptation. The environmental problems of today cannot be handed down to future generations to deal with.

Security is a cornerstone of the Swedish model, and a sustainable society is the path forward. Concerted efforts are also necessary to deter crime and uphold security and democracy. Total defence must be reinforced. Security must increase in residential areas, hospitals and schools, and at bus stations. The Swedish Police Authority and Swedish Customs will receive increased resources. Emergency services staff must be protected. Sweden's preparedness against terrorist attacks must be further strengthened. Drugs and weapons must be stopped at the border. The capacity to tackle organised crime must increase and penalties be made tougher. Police capability to investigate sexual offences must increase. Preventive efforts to combat sexual harassment, violence and abusive treatment must be strengthened through education and information initiatives in the judicial system, schools and social services, and through enhanced support to regional safety representatives. Society

must become much better at preventing violence against women and honour-related violence.

In a new era when fake news, threats, hate, racism and intolerance are poisoning the democratic dialogue, the infrastructure consisting of government agencies, courts, journalists, teachers and librarians that safeguard our legal rights, factual knowledge and freedom of speech must be safeguarded. Sweden must be a nation of social cohesion, where freedom of expression is strong.

The Government has introduced new indicators of wellbeing that complement GDP and provide a broader measure of societal development.

The forecasts in this convergence programme extend far into the next electoral period. They are based on policies the Government has pursued to date and choices ahead – that investments in building our society take precedence over major tax cuts. A secure and sustainable Sweden is the path this Government is choosing.

The Government's view of the Council's recommendations from 2017

The Council adopted country-specific recommendations to the Member States on 11 July 2017. The formal Council Decision recommends that Sweden take action in 2017 and 2018 to:

> address risks related to household debt, in particular by gradually limiting the tax deductibility of mortgage interest payments or by increasing recurrent property taxes, while constraining lending at excessive debt-to-income levels. Foster investment in housing and improve the efficiency of the housing market, including by introducing more flexibility in setting rental prices and revising the design of the capital gains tax.

The Government welcomes the reviews conducted within the framework of the European Semester. The Government shares the assessment that household debt poses a risk to macroeconomic stability. Moderating increased household debt is an important challenge and the Government has taken action to meet it. The recommendations are addressed in sections 3.1 and 3.2 of the National Reform Programme.

1.5 Monetary policy

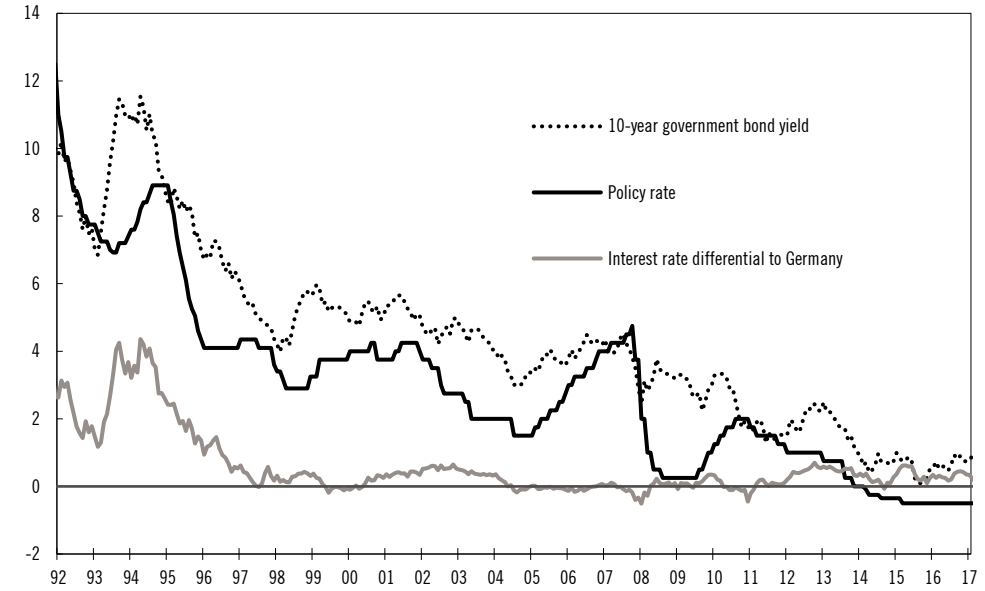
Swedish monetary policy is expansionary. Since December 2011 the Riksbank has cut the repo rate in stages from 2 per cent to a record-low level of-0.50 per cent,- which has applied after the decision of the Bank in February 2016 (see chart 1.1.). The repo rate has been negative since February 2015. The reasons for the reductions of the repo rate were low inflation, concern about falling inflation expectations and the weak economic situation. In addition to holding the repo rate negative, the Riksbank has also carried out a comprehensive government bond purchase

programme that was ended in December 2017. But the Riksbank has brought forward reinvestments in 2018 of maturities that will take place in 2019.

In 2017 yields in government bond markets internationally and in Sweden have been marked by communication about monetary policy and strong macroeconomic indicators. In mid-2017 government bond yields rose following communication from the European Central Bank, which led to the market interpreting the Bank's monetary policy intentions as less expansionary. But these expectations declined in the summer, and this resulted in falls in government bond yields. The fourth quarter saw a slight rise in government bond yields, particularly in the US in conjunction with an announcement of a balance sheet shrinking in October 2017 and an interest rate increase in December of the same year by the Federal Reserve at the same time as fiscal policy stimulus was announced. This led to higher inflation expectations and a broad rise in bond yields.

Chart 1.1 Interest rates in Sweden

Per cent



Sources: Riksbank and Macrobond.

Inflation, measured as the annual percentage change in CPI has shown a rising trend since the beginning of 2016 (see chart 1.2). The increase is largely attributable to rising energy prices. Price increases for some services have also had significant impact on the development of inflation. Underlying inflation measured as CPIF, which consists of CPI with a fixed home mortgage rate, has trended upwards since 2014. As mortgage interest rates have remained virtually unchanged for the past year, the gap between CPIF inflation and CPI inflation has narrowed. CPI inflation is now close to the inflation target of 2 per cent.

Chart 1.2 Inflation measured as CPI and CPIF

Annual percentage change

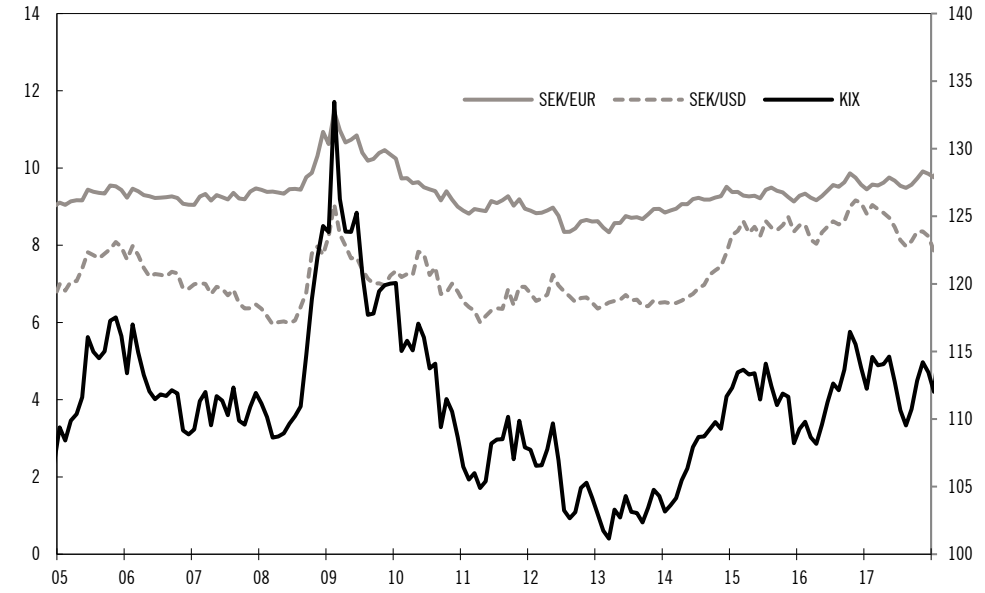
Note: The dashed line is the Riksbank's inflation target.

Source: Statistics Sweden

Sweden has had a floating exchange rate since November 1992. Chart 1.3 shows the development of the Swedish krona against the euro and the US dollar since 2005, along with the trade-weighted KIX exchange rate index. The krona has weakened against many currencies since 2014, which is explained to some extent by the Riksbank's expansionary monetary policy. The Riksbank has also stated repeatedly that it is prepared to apply further monetary policy stimulus if appreciation of the krona poses a risk to the rise of inflation.

Chart 1.3 KIX krona index and development of the Swedish krona against the euro and the US dollar

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



Source: Riksbank

2 Macroeconomic developments

2.1 International and financial economy

The upturn in the global economy broadened and became ever stronger in 2017. All the major economies are now growing at a relatively good rate at the same time for the first time since the financial crisis. Considerable optimism among companies and households about the performance of the economy indicates that growth will remain good in 2018. The former consumption-led growth around the world is now increasingly being driven by greater capital investments, leading to higher demand for investment goods. International trade has increased, as has industrial production. This benefits Swedish exports.

The ongoing economic upturn in the US economy is now in its ninth year. The tax cuts and increases in federal expenditure negotiated in December 2017 are expected to provide some economic stimulus from the short-term perspective through higher investments and consumption. In the longer term this will be countered by rising inflation expectations that are expected to drive a more rapid normalisation of monetary policy. The US labour market is close to full employment. Overall, growth is expected to remain robust in 2018 and 2019.

The euro area economy expanded at its fastest rate in a decade in 2017. Growth has been bolstered by greater investments, a global upturn in production and trade and expansionary monetary policy. The current recovery includes both more countries and more sectors than before. Domestic demand has been strengthened by the improvement in the labour market. A continuation of strong demand is expected to drive both new investment and replacement of existing capital. The growth of consumption is expected to moderate slightly when employment growth slows and inflation rises. Inflation is still low and the underlying inflation rate is expected to only rise gradually since all indications are that pay rises will be moderate. In all, GDP growth in the euro area is expected to remain good in 2018 and to then moderate slightly in 2019.

In China GDP growth accelerated in 2017 driven by strong exports and property investments, turning out to be slightly higher than the growth target of the Chinese authorities. A less expansionary policy is expected in the future at the same time as the authorities are taken measures to support deleveraging the high level of corporate debt. This means that growth in China will continue to moderate in 2018 and 2019 while becoming more consumption-based. As a result of rising commodity prices in 2017, large commodity exporters like Brazil and Russia have exited their recessions.

2.2 The Swedish economy

GDP growth has been high in Sweden in the past four years. Investments and consumption have been the main drivers of growth. The Government's reforms and an expansionary monetary policy have made a substantial contribution to this development. In 2018 the Swedish economy is expected to continue to perform strongly. Households and companies are optimistic about the economic prospects and capacity utilisation in industry is judged to be high. In the years after 2018 GDP is expected to grow at an average rate. In an overall assessment, capacity utilisation in the Swedish economy is expected to be higher than normal in 2018 and 2019 (see table 2.1).

Unemployment has decreased since 2014, for both women and men, and is now at its lowest level since 2008. Youth unemployment (15–24 years), in particular, has decreased markedly and is now at its lowest level since 2003. In 2017 the demand for labour was high. The number of people employed rose more rapidly than the population, so the employment rate also rose. At the same time, unemployment decreased at a slower rate than before, partly because of the rapid increase in the number of people in the labour force. In 2017 the labour force increased by more than 100 000 people. The high level of activity in the Swedish economy is expected to result in a decrease in unemployment, given the reforms so far implemented by the Government, to 6.2 per cent in 2018 and 2019. Both employment and the employment rate are expected to continue to rise in these years.

For most employees the round of collective bargaining in 2017 resulted in three-year agreements with pay increases averaging 2.1 per cent per year. This is slightly lower than the average annual increase since 1993. It also means that the total rate of pay growth in 2018 and 2019 will be subdued. This assessment is supported by the moderate pay growth in recent years, despite the ever stronger performance of the labour market, and subdued pay expectations. At the same time, high resource utilisation in the labour market is expected to affect the rate of pay growth after some lag and to result in slightly higher pay increases in 2019.

CPIF inflation was 2 per cent in 2017. An expansionary monetary policy, a strong economy and factors of a more temporary nature, such as rising energy prices, contributed to this development. Inflation is expected to moderate slightly in 2018. As resource utilisation rises both internationally and in Sweden, inflation is expected to rise and to reach the target of 2 per cent in 2020.

Table 2.1 Key indicators

Annual percentage change, unless otherwise stated

	2017	2018	2019	2020	2021
GDP	2.4	2.8	2.2	2.1	1.8
GDP gap[1]	0.7	1.4	1.3	1.0	0.5
Employment[2]	2.3	1.4	0.6	0.5	0.3
Employment rate[3]	81.8	82.3	82.5	82.6	82.6
Hours worked[4]	1.9	1.7	0.8	0.4	0.1
Productivity, business sector[4,5]	1.5	1.2	1.5	1.8	1.7
Unemployment rate[6]	6.7	6.2	6.2	6.1	6.1
Wages[7]	2.5	2.8	3.1	3.4	3.4
CPI[8]	1.8	1.6	1.9	2.8	3.4

[1] The difference between actual and potential GDP as a percentage of potential GDP.
[2] Persons, 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] Labour productivity measured as GDP to base price per hour worked.
[6] Per cent of the labour force, 15–74 years.
[7] Measured according to the short-term wage statistics.
[8] Annual average.
Sources: Statistics Sweden and own calculations.

2.3 Potential macroeconomic imbalances

The emergence of macroeconomic imbalances in, for instance, the form of persistent differences in competitiveness has created severe problems for many countries in the aftermath of the financial crisis. In order to ensure favourable economic development in the long term, it is important, in the first place, to implement measures that prevent macroeconomic imbalances from occurring and, in the second place, to identify and correct at an early stage any imbalances that nevertheless do occur. It is difficult to give an exact definition of a macroeconomic imbalance, But such an imbalance can be said to reflect an underlying problem that has the potential to lead to a rapid and significant correction, which then has an adverse impact on the economy as a whole.

The macroeconomic imbalance procedure

The EU Macroeconomic Imbalance Procedure is part of the European Semester and economic policy coordination in the EU. The procedure began when the European Commission published the Alert Mechanism Report 2018 in November 2017. The report contained a preliminary economic analysis of the Member States, including a scoreboard of indicators in relevant areas of macroeconomic imbalances. For Sweden, the Macroeconomic Imbalance Procedure for 2018 indicated that high private sector debt and rising house prices were potential imbalances.

In March 2018, the Commission published in-depth reviews of the 12 Member States that had been identified as countries with potential imbalances in the Alert Mechanism Report. The Commission judged that 11 of the 12 Member States examined either had macroeconomic imbalances (8 Member States) or excessive imbalances (3 Member States).

All Member States assessed as having imbalances will be subject to specific monitoring, which isadapted to the severity of the imbalances.

The Commission will submit a proposal on measures to address these imbalances within the framework of the European Semester. These proposals will be included in the package of country-specific recommendations that the Commission will present in May 2018. The information provided in the Member States' national reform programmes and convergence or stability programmes will take into account. If the Commission finds that a Member State assessed as having excessive imbalances takes insufficient action, the Commission may recommend that the Council initiate the Excessive Imbalance Procedure, which is the corrective arm of the Macroeconomic Imbalance Procedure.

In its in-depth review of Sweden for 2018, the Commission assessed that there are macroeconomic imbalances. They are high and rising household debt and high house prices.

Household debt

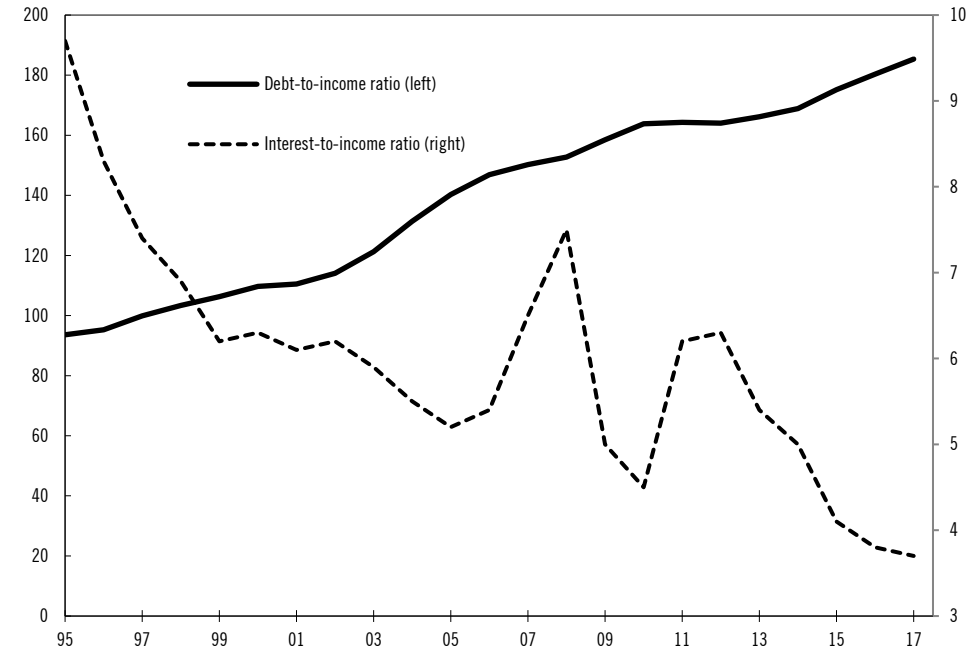
A high level of debt, whether in the private or public sector, may lead to problems for both financial stability and macroeconomic performance.

In the period from 1995 to 2017, Swedish household debt increased significantly (see chart 2.1). At the aggregate level, this development can be described in terms of debt-to-income ratio and interest-to-income ratio, where the debt and the interest payments after tax are compared with households' disposable incomes. Even though the debt-to-income ratio is at a historically high level, the interest-to-income ratio is the lowest for the past 20 years. Lower interest rates have enabled households to take on more debt without higher interest payments crowding out the possibilities to consume, invest or save. Following several years of upturns, the debt-to-income ratio in 2017 was 185 per cent of households' disposable income. Swedish household debt is high both from a historical perspective and compared with other countries.

A large part of the increase in house prices and household debt since the mid-1990s can be explained by structural and macroeconomic factors. More and more people own their homes. The supply of housing has increased more slowly than the population and housing-related taxes have been reduced, particularly in connection with the replacement of the central government real estate tax with a local real estate charge in 2008. The rise in the aggregate debt-to-income ratio is thus explained both by more households having loans and by households having larger loans on average.

Chart 2.1 Household debt-to-income and interest-to-income ratios

Percentage of disposable income



Source: Statistics Sweden.

Even though the risk of financial instability is judged to be low, there is reason to carefully follow and monitor the high debt among households.

The Government takes the view that it is of central importance to take carefully considered measures to dampen the rate of growth of household debt, so that the measures do not trigger a rapid and uncontrolled downturn in house prices resulting in substantial negative effects on growth and employment. In autumn 2010, Finansinspektionen adopted general guidelines concerning a ceiling for loans secured by a home, i.e. mortgages. The loan-to-value (LTV) ceiling for mortgages meant that new loans should not exceed 85 per cent of the market value of the property. Finansinspektionen's annual mortgage surveys have shown that the proportion of new mortgages with an LTV ratio of over 85 per cent has declined sharply since 2010. Its analysis shows that the ceiling for mortgages led to households borrowing less and to a slight dampening of house prices.

Increased amortisation means that household debt decreases in the long term, which improves households' resilience to disruptions. Following approval by the Government, Finansinspektionen adopted amortisation requirement regulations, which entered into force on 1 June 2016. The requirement means that households that borrow more than 50 per cent of the value of their home have to amortise at least 1 per cent of their mortgage per year while households that borrow more than 70 per cent of the value of their home have to amortise at least 2 per cent of their mortgage per year. Finansinspektionen's analysis shows that households with new mortgages that are covered by the amortisation requirement borrow less and buy cheaper homes that they would have without the amortisation requirement. On 1 March 2018, the amortisation

requirement was tightened for households that take large mortgages in relation to their income. The tighter requirement means that households that borrow more than 4.5 times their annual pre-tax income have to amortise an additional 1 per cent of their mortgage per year. At present this measure is judged to affect just under 15 per cent of all new mortgage borrowers. Moreover, the possibilities for Finansinspektionen to take further macroprudential measures, following permission by the Government, have been reinforced through legislative amendments that entered into force on 1 February 2018. These amendments were based on a political agreement made by the Government with the centre-right parties and the Left Party in October 2016.

The Swedish banking system is large and is dominated by a few, closely-linked banks. The major banks have considerable exposure to the housing market. Several measures have therefore been taken to strengthen the resilience of the financial system. To ensure that banks maintain own funds that cover the risks in their Swedish mortgage portfolio, Finansinspektionen introduced a risk-weight floor of 15 per cent for Swedish mortgages in May 2013. Finansinspektionen subsequently raised the risk-weight floor to 25 per cent in September 2014. The Basel 3 Agreement was implemented in the EU in 2014 when the Credit Requirements Regulation (CRR) entered into force and the Capital Requirement Directive IV (CRDIV) was implemented in Swedish law. The new regulatory framework means that a larger share of the capital requirements has to be met with capital of higher quality, i.e. better loss-bearing capacity. Buffer capital requirements have also been introduced through the new regulatory framework, and this has resulted in higher capital adequacy requirements for Swedish institutions, especially for systemically important institutions. In June 2015, Finansinspektionen decided to increase the counter-cyclical capital buffer from 1.0 per cent to 1.5 per cent as of June 2016. Finansinspektionen then decided in March 2016 on a further increase of the counter-cyclical capital buffer to 2.0 per cent. The latest increase of the counter-cyclical capital buffer entered into force in March 2017.

The Government shares the European Commission's assessment that the tax system may affect mobility in the housing market. However, it is important to maintain stable and predictable rules for decisions of such an important and long-term nature as home purchases. The need for action in the area must be viewed from a long-term perspective and be handled with care. This applies particularly to the question of interest deductions. The changes made in housing taxation in recent years have moved towards lower current taxation and higher taxation when transactions are made. To improve mobility in the housing and labour market the rules on deferring capital gains on sale of private homes were amended as of 1 January 2017. The amendment abolished the cap on deferred capital gains for sales of private homes during the period of 21 June 2016–30 June 2020. In addition, the method for calculating the size of the deferral on

the purchase of a cheaper home has been changed to make it more generous, apart from in exceptional cases.

A number of measures have been taken in recent years in order to strengthen the resilience of banks to financial crises and curb the rate of growth of household debt. Housing construction has increased strongly in recent years. Housing prices have also moderated and have shown negative annual growth rates since the end of 2017. The Government and relevant agencies are continuing to examine the risks of household debt and are prepared to take further measures if so required.

3 General government finances

3.1 Accounting policies

This section presents the forecast for the general government finances given in the Spring Fiscal Policy Bill for 2018 (Govt Bill 2016/17:100). The reporting of general government income and expenditure is based on the European System of Accounts (ESA 2010). The Government's reporting, which is also used by the National Institute of Economic Research (NIER), differs in certain respects from ESA 2010 (see table 3.1). The main differences are that parts of sales revenue from public activities are recorded on expenditure side, as a deduction item among general government consumption expenditure, while these revenues are recorded on the revenue side in the national statistics according to ESA 2010 But there is no difference in the calculation of net lending. A detailed report of general government finances in accordance with ENS 2010 (and EDP) is given in table C.2a in Appendix C.

Table 3.1 General government finances in accordance with the accounting standards in the Spring Fiscal Policy Bill and ESA 2010

Per cent of GDP

	2017	2018	2019	2020	2021
SFPB16					
Revenue	49.2	48.7	48.4	48.4	48.4
Expenditure	48.1	47.7	47.4	47.1	46.5
Net lending	1.1	1.0	1.0	1.3	1.9
ESA 2010					
Revenue	50.2	49.5	49.2	49.1	49.1
Expenditure	49.1	48.6	48.2	47.9	47.2
Net lending	1.1	1.0	1.0	1.3	1.9

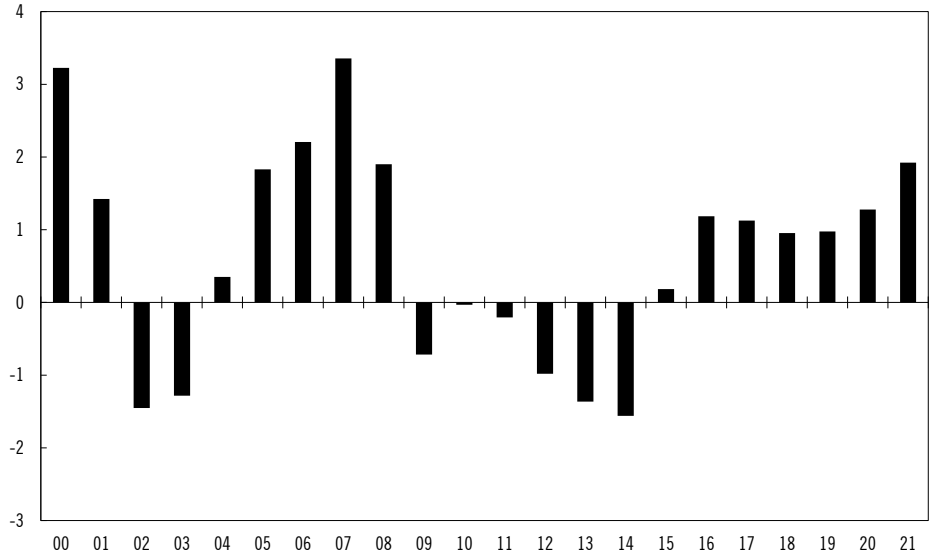
Note: SFPB16 = 2016 Spring Fiscal Policy Bill.
Sources: Statistics Sweden and own calculations.

3.2 Development of general government finances

General government finances have strengthened substantially since 2014 (see chart 3.1). Net lending turned round from a deficit of 1.6 per cent of GDP in 2014 to a surplus of 1.2 per cent of GDP in 2016. The improvement in general government finances is attributable both to strong economic growth and to the responsible economic policy pursued by the Government since taking office. Growth in public expenditure has been considerably slower than growth in GDP, in spite of the higher expenditure as a result of the very large number of people who applied for asylum in Sweden in autumn of 2015. In 2017 net lending was largely unchanged from 2016, amounting to 1.1 per cent of GDP.

Chart 3.1 General government net lending 2000-2021

Per cent of GDP



Sources: Statistics Sweden and own calculations.

Net lending 2018 is predicted temporarily detereriorate compared with 2017 but to strengthen as of 2019. Net lending is expected to be in line with the surplus target as of 2016. The development of general government finances is mainly determined by central government net lending. The main reason for the gradual strengthening forecast is that central government expenditure is forecast to grow more slowly at the same time as income will grow in pace with GDP. The finances of the pension system become slightly stronger throughout the forecast period.

Table 3.2 General government finances

Per cent of GDP if not otherwise stated

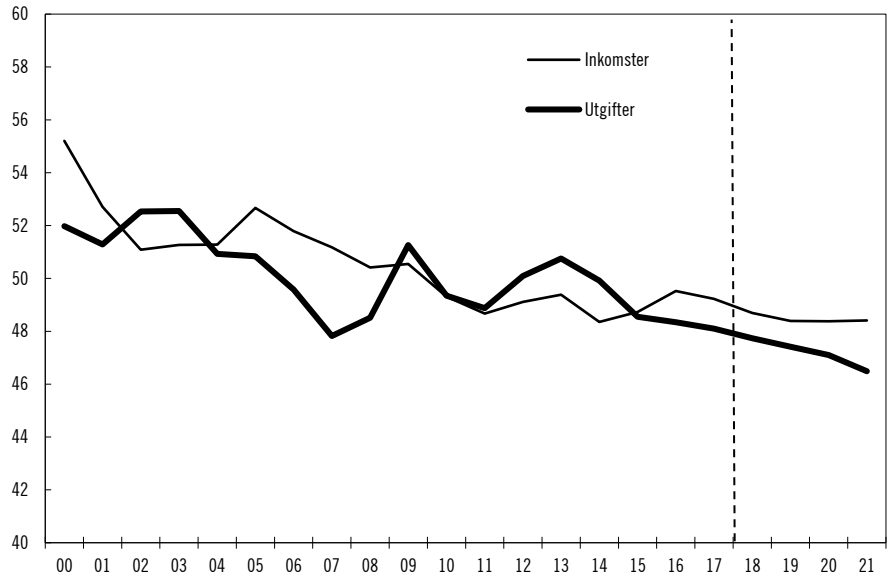
	SEK, billions					
	2017	**2017**	**2018**	**2019**	**2020**	**2021**
Revenue	**2 266**	**49.2**	**48.7**	**48.4**	**48.4**	**48.4**
Taxes and charges	2 014	43.7	43.2	42.9	42.8	42.8
Household direct taxes	608	13.2	12.7	12.6	12.6	12.5
Corporate direct taxes	130	2.8	2.9	3.0	3.1	3.2
Employers' contributions	245	5.3	5.3	5.3	5.3	5.3
Indirect taxes	1 031	22.4	22.2	22.0	21.9	21.8
Income from capital	63	1.4	1.5	1.4	1.5	1.6
Other revenue	190	4.1	4.1	4.1	4.0	4.0
Expenditure	**2 215**	**48.1**	**47.7**	**47.4**	**47.1**	**46.5**
Transfer payments	788	17.1	16.9	16.7	16.5	16.2
Final consumption expenditure	1 198	26.0	25.8	25.6	25.5	25.1
Gross fixed capital formation	204	4.4	4.4	4.5	4.6	4.6
Interest expenditure	24	0.5	0.5	0.5	0.5	0.6
Interest on pension liabilities	8	0.2	0.2	0.2	0.2	0.2
Net lending	**52**	**1.1**	**1.0**	**1.0**	**1.3**	**1.9**
Primary net lending	68	1.5	1.3	1.3	1.7	2.3
Consolidated gross debt	**1 855**	**40.3**	**37.3**	**34.2**	**31.6**	**29.0**
Net debt	**1 144**	**24.9**	**25.8**	**26.5**	**27.7**	**29.7**

Sources: Statistics Sweden and own calculations.

In contrast, net lending in the local government sector is estimated to decrease gradually during the period up to and including 2021. But the financial resultis judged to be positive according to the accounting principles that apply to the local government balanced budget requirement (see also section 3.7).

Chart 3.2 General government Income and expenditure 2000–2021

Per cent of GDP



Sources: Statistics Sweden and own calculations.

Tax ratio

Total tax revenue as a share of GDP (the tax ratio) is expected to decrease between 2017 and 2018 as a result of proposed amendments to tax legislation (chiefly lower taxes for pensioners) and of an estimated decrease in households' capital tax as a share of GDP. As a result of the changes announced in tax regulations there is a further slight decrease in the tax ratio between 2018 and 2019, but after that it is expected to be unchanged (see chart 3.2).

Expenditures as a proportion of GDP

The expenditure ratio, i.e. expenditure as a proportion of GDP, is expected to decrease throughout the forecast period. It is mainly public consumption and transfer payments to households that are expected to grow more slowly than GDP; part of the reason for this is that the Government's calculations only take account of the proposals for and announcements of reforms and financing that the Government has presented to the Riksdag and that the Riksdag has either adopted or approved the calculations for.

The strengthening of net lending is at central government level

Central government net lending is expected to decrease temporarily in 2018, mainly on account of the active fiscal policy (see table 3.3). As of 2019 central government net lending is expected to strengthen gradually since the active fiscal policy will be slightly less extensive than the scope provided by the automatic strengthening of the budget. When policy remains unchanged, net lending is normally reinforced since tax revenue increases at about the same rate as nominal GDP, while public expenditure increases at a somewhat slower rate. The reason for this is that many transfer payments are not automatically adjusted upward in pace with economic growth. Furthermore, appropriations to central government agencies are not fully compensated for pay rises because a certain increase in productivity is assumed in the price and pay recalculation system. So without new active decisions, general government finances are normally strengthened.

Table 3.3 Net lending and the central government budget balance

Per cent of GDP

	2017	2018	2019	2020	2021
General government net lending	**1.1**	**1.0**	**1.0**	**1.3**	**1.9**
Central government	1.5	1.3	1.4	1.7	2.3
Old-age pensions system	0.0	0.0	0.0	0.1	0.1
Local government sector	-0.3	-0.4	-0.5	-0.5	-0.5
Central government budget balance	1.3	1.5	1.3	0.9	2.3
Central government debt	27.5	24.3	21.1	18.9	16.1

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

3.3 Net financial wealth and consolidated gross debt

Consolidated gross debt (Maastricht debt) is defined by EU rules and is the debt concept used to assess Member States' general government finances within the framework of the Stability and Growth Pact. For Sweden, this definition means that the debt consists of the consolidated central government debt and local government sector debt in the capital markets, less the Swedish National Pension Funds' holdings of government bonds.

Before Sweden's accession to the EU on 1 January 1995, the consolidated gross debt amounted to more than SEK 1 200 billion, corresponding to around 70 per cent of GDP. Since then, this debt has increased by approximately SEK 650 billion to amount to just over SEK 1 850 billion at the end of 2017.

Central government financing of loans to the Riksbank to reinforce currency reserves in 2009 and 2013 increased the debt by nearly 3 per cent of GDP in each of these years. At the same time, central government claims on the Riksbank increased to a corresponding extent. The debt also increased by about 1.8 per cent of GDP in 2014 due to regulatory changes that allowed central government agencies other than the National Debt Office to hold outstanding repurchase agreements regarding financial instruments ('repos') over the turn of the year. However, according to the National Accounts, assets and liabilities are affected to the same extent by the repos, so the change does not affect net worth. Since these repos are managed by the Legal, Financial and Administrative Services Agency, central government debt is not affected according to the reporting in the central government budget, which only reflects debt management by the National Debt Office. Otherwise, deficits in general government finances and currency effects contributed to the debt increase between 2012 and 2014.

The contribution of the local government sector to the consolidated gross debt has increased in nominal terms. This is largely due to investments in the local government sector partly being financed by loans and to the sector's financing of on-lending to local government corporations.

However, the debt has decreased strongly as a proportion of GDP since 1994, amounting to 40.3 per cent of GDP at the end of 2017, which is substantially below the reference value in the Stability and Growth Pact of a maximum of 60 per cent of GDP. The development of the debt depends on net lending, which can be divided among the primary balance, interest expenditures and the 'stock flow'. This flow is made up of financial transactions and accruals that do not affect net lending. The gross debt is expected to decrease throughout the forecast period due to stronger general government finances. In 2021 the debt ratio is estimated to be 30 per cent of GDP.

General government's net financial wealth is strengthening

The general government sector has positive net financial wealth that can mainly be attributed to the National Pension Funds in the old-age pension system. Central government's net financial wealth is negative and the financial assets and liabilities of the local government sector have essentially been in balance since 2000.

In addition to the Maastricht debt, total debt also includes commitments by central government and the local government sector for defined-benefit occupational pensions earned since 1998.

Net financial wealth amounted to just under 25 per cent of GDP in 2017, which was an increase of nearly 2.5 per cent of GDP compared with 2016. Of the increase, 1.1 percentage points were attributable to the surplus in general government finances, while GDP growth instead resulted in a negative contribution of 1.0 percentage points. Other changes, mainly referring to changes in the value of assets in the pension system, accounted for a reinforcement of 2.2 percentage points.

The surplus in net lending together with expected changes in the value of assets, primarily in the pension system, means that net financial wealth will increase gradually in the period 2018-2021. As of the Budget Bill for 2017, forecasts are made for increases in the value of assets in the form of securities in all sectors.

3.4 Reconciliation against the general government net lending target

In this Convergence Programme the monitoring of the surplus target is changed from having been based on a number of monitoring indicators in previous convergence programmes to now having a clearer focus on the structural balance. There is considered to be a deviation from the surplus target if the structural balance deviates clearly from the target level in the present year or the coming year, i.e. the budget year. There may be several reasons for the occurrence of a deviation from the target and this must not be equated with the policy being incorrectly framed or being incompatible with the fiscal policy framework. An eight-year retrospective average of actual net lending is used in order to be able to evaluate *ex post* whether the surplus target has been attained, and to detect systematic deviations. Accumulated deviations in net lending that lead to undesirable levels of debt can also justify an adjustment of the target level for savings at the next review of the surplus target. However, the retrospective average is not intended to govern fiscal policy in the short term, but is, instead, mainly intended to be used at the next review to evaluate whether the target level, given target achievement and the development of the debt, needs to be adjusted to ensure the sustainability of and margins in general government finances.

According to the net lending target, general government net lending has to correspond, until and including 2018, to 1 per cent of GDP on average over the course of an economic cycle. As of 2019 the target will be reduced to 0.33 per cent of GDP. Formulating the net lending target

as an average over an economic cycle instead of an annual requirement target is justified for reasons of stabilisation policy. If the target was a fixed value of net lending as a share of GDP in each individual year, fiscal policy would also need to be contractionary in an economic downturn to ensure that the annual target was met. Fiscal policy would thus amplify economic fluctuations instead of stabilising them. However, formulating the target as an average over an economic cycle makes it more difficult to monitor whether fiscal policy is in line with the target since it is difficult to determine when an economic cycle begins and ends, as well as the specific cyclical position of the economy.

Table 3.4 General government net lending and indicators for reconciliation against the net lending target

Per cent of GDP if not otherwise stated

	2017	2018	2019	2020	2021
Net lending	**1.1**	**1.0**	**1.0**	**1.3**	**1.9**
Retrospective eight-year average	-0.2				
Structural balance[1]	0.7	0.5	0.5	0.8	1.7

Sources: Statistics Sweden and own calculations.

Structural balance

Despite considerable uncertainty about the structural balance, this measure, calculated according to established methods, is judged to be the most suitable measure for assessing whether the present level of net lending and fiscal policy are consistent with the surplus target. The use of the structural balance as the main indicator in the prospective monitoring of the surplus target is also judged to be consistent with EU law. Table 3.4 presents outcomes and forecasts of general government net lending. The structural balance in years *t* and *t+1*, i.e. in the present year and the budget year, 2018 and 2019, is used to assess achievement of the surplus target looking forward.

The Government's responsible fiscal policy has corrected the deviation from the surplus target that arose in the previous electoral term, and as of 2016 the balance has been in line with the surplus target. The Government's assessment is that in 2019 the balance will be in line with the new surplus target. The structural balance will then be reinforced considerably as of 2020.

Retrospective eight-year average

Average general government net lending was -0.2 per cent of GDP in 2010–2017. The low level is explained by the effects of the protracted recession on the general government finances, and by unfinanced measures, especially tax reductions, that were taken before 2015.

The Government's overall assessment of attainment of the general government net lending target

The Government considers that the direction of fiscal policy as of 2018 is a suitable transition to the new surplus target of 0.33 per cent of GDP. The Government also makes the assessment that the direction of fiscal policy is well-considered from the perspective of stabilisation policy. As shown in the description of the state of the economy, resource utilisation in the Swedish economy is judged to be higher than normal. Viewed by itself, this would be an argument for a contractionary fiscal policy. However, a number of factors argue against that direction of fiscal policy. To begin with, there is no clear underlying inflationary pressure. Both price and pay inflation are subdued, and most indications also point to moderate growth in the future. The risk of an overheating of the Swedish economy is therefore judged to be limited. The Riksbank is continuing to pursue a very expansionary monetary policy and has, to judge from all the indications, limited possibilities of stimulating the economy further. Many of the newly arrivals who came to Sweden in 2014 and 2015 are now entering the labour market and need to obtain employment. High demand pressure in the economy improves their possibilities of quick integration in the Swedish labour market. In addition, the demographic changes now taking place in Sweden – with a higher proportion of young and old people – mean that there is an underlying demand for services with public financing. So there is also an underlying need for greater public expenditure. The fiscal space available in relation to the surplus target should therefore be used for investments in welfare provision. With the policies being pursued, demographic needs can be met while attaining the surplus target.

The Government's assessment of the medium-term budgetary objective (MTO) according to the preventive arm of the Stability and Growth Pact

Sweden's medium-term budgetary objective (MTO) is that the structural balance should not fall below minus 1 per cent of potential GDP.

Table 3.5 Structural balance as calculated by the European Commission

Procent av potentiell BNP

	2017	2018	2019
Structural balance	**0.8**	**0.6**	**0.7**
Medium term budgetary objective (MTO)	-1.0	-1.0	-1.0

Source: European Commission's forecast (November 2017).

The European Commission's latest forecast, published in November 2017, estimates the structural balance in Sweden at 0.8 per cent of potential GDP in 2017 (see table 3.4). The structural budget balance in 2018 and 2019 is forecast to be 0.6 and 0.7 per cent of potential GDP, which is higher than the Government's assessment (see table 3.5). The

difference is partly due to different assessments of economic developments and to different calculation methods. The Commission's November forecast indicates that Sweden is expected to meet the medium-term objective in all years.
In sum, the Government finds that the margins to the limit values in the corrective arm of the Stability and Growth Pact are good and that Sweden is expected to meet the criteria of the preventive arm of the Stability and Growth Pact.

3.5 Monitoring of the debt anchor

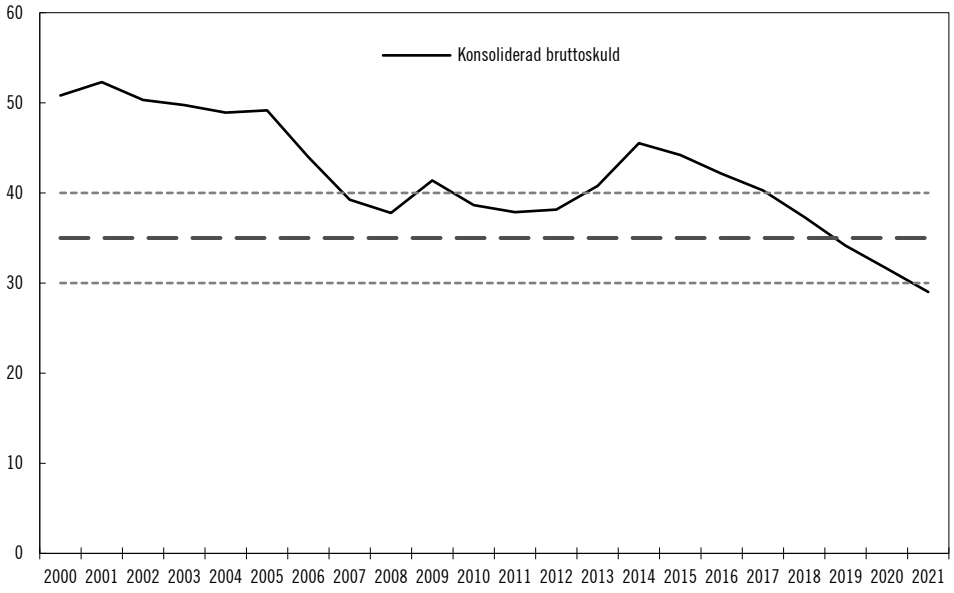
The fiscal policy framework is being supplemented with a debt anchor for consolidated gross general government debt. The level of the debt anchor, which is a guideline for the level of the debt, was set at 35 per cent of GDP.

The rules for the debt anchor require the Government to give an account each year in the spring fiscal policy bill of the development of consolidated gross general government debt. If this debt deviates by more than 5 per cent of GDP from the debt anchor, the Government has to present a communication to the Riksdag at the same time as the spring fiscal policy bill. Any deviations are measured according to the outcome in the national accounts for the preceding year or in the forecast for the present year or the budget year. In its communication the Government has to give an account of the cause of the deviation and how the Government intends to handle it.

For 2019, i.e. the year when the debt anchor will enter into force, general government gross debt as a share of GDP is judged to be within the tolerance limits of the debt anchor by a good margin (see chart 3.3). In the present forecast the gross debt falls further ahead in the forecast horizon to just under 30 per cent of GDP in 2021.

Chart 3.3 Consolidated gross debt

Proportion of GDP



Source: Own calculations.

3.6 Monitoring of the expenditure ceiling

The multi-year expenditure ceiling is intended to foster the credibility of economic policy and is an important budgetary policy commitment for the Riksdag and the Government. In principle, all expenditure in the central government budget is subject to the expenditure ceiling, apart from expenditure for interest on the central government debt. In addition, off-budget expenditure in the old-age pensions system is covered by the expenditure ceiling. In the monitoring of the expenditure ceiling, ceiling-restricted expenditure consists of the actual use of appropriation funds, so that the use by agencies of appropriations savings and appropriations credit is included. The space between the expenditure ceiling and the ceiling-restricted expenditure is termed the budgeting margin. As a rule, use of the budgeting margin worsens general government finances. The expenditure ceiling is the upper limit for ceiling-restricted expenditures. The level of the expenditure ceiling should not, however, be regarded as a target for ceiling-restricted expenditures. One reason is that the surplus target may restrict the level of ceiling-restricted expenditures even when there is space below the expenditure ceiling.

The Swedish Budget Act requires the Government to propose a level of the expenditure ceiling for the third year ahead in the budget bill. This proposed level is input for the Riksdag's decision on the expenditure ceiling. In the Budget Bill for 2019, the Government will propose a level for the expenditure ceiling for 2021, as provided by the Swedish Budget Act. In the Spring Fiscal Policy Bill for 2018 the Government makes the assessment that the level of the expenditure ceiling for 2021 should be SEK 1 492 billion.

The budgeting margin under the expenditure ceiling for 2018 is estimated at SEK 55 billion, which the Government considers adequate to manage the uncertainty in expenditure growth. The estimated budgeting margins for 2019 and 2020 are SEK 86 billion and SEK 128 billion.

Table 3.6 Expenditure ceiling 2016–2020

SEK billions, unless otherwise stated

	2016	2017	2018	2019	2020
Expenditure ceiling	1 215	1 274	1 337	1 397	1 471
Per cent of GDP	27.6	27.7	27.7	27.8	28.1
Ceiling-limited expenditure	1 184	1 229	1 282	1 311	1 343
Per cent of GDP	26.9	26.7	26.5	26.1	25.7
Budgeting margin	31	45	55	86	128
Per cent of GDP	0.7	1.0	1.1	1.7	2.4

Note: The budgeting margin is the difference between an expenditure ceiling and the ceiling-restricted expenditure.
Sources: Swedish National Financial Management Authority and own calculations.

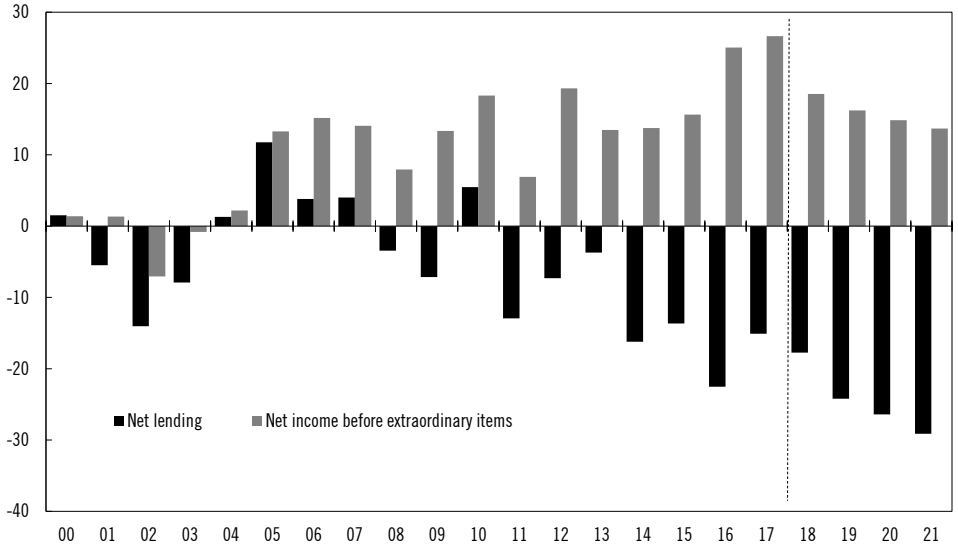
3.7 Monitoring the requirement of sound financial management in the local government sector and the local government balanced budget requirement

The general government net lending target (see section 1.1) also includes net lending in the local government sector, that is, municipalities and county councils and certain other local government organisations. The surplus target is expressed in terms of net lending as defined in the National Accounts. However, it is net income, and not net lending, that determines whether municipalities and county councils are in compliance with the balanced budget requirement of the Swedish Local Government Act. According to this requirement, municipalities and county councils have to draw up budgets in which revenue exceeds costs. Deviations from the balanced budget requirement are only permitted in exceptional cases. A negative result in the accounts for a particular year must be corrected within three years, unless there are exceptional grounds. This requirement represents the lowest acceptable level of net income in the short-term.

There are accounting differences between the local government accounts and the National Accounts that can amount to several billion kronor for a particular year (see chart 3.4). These differences arise because local government accounting is based on the same theoretical principles as accounting in the business sector. If, for example, investment expenditure rises substantially between two years, this has an immediate impact on net lending, while net income would only be affected by depreciation.

Chart 3.4 Local government net income and net lending

SEK billion



Sources: Statistics Sweden and own calculations.

The Swedish Local Government Act requires municipalities and county councils to have sound financial management in their operations. This means, for instance, that municipalities and county councils have to set their own financial targets and be accountable for long-term sustainable finances. It has long been a fundamental principle that each generation has

to meet its own costs. One commonly used target is that net income should correspond to a certain proportion of tax revenue and general central government grants. The annual reports of municipalities and county councils have to contain an assessment of whether the balanced budget requirement has been met and of whether targets for good financial management have been achieved. As of 1 January 2013 municipalities and county councils are permitted to build up income equalisation reserves as part of their own funds. This means that surpluses can be set aside in good times for use if deficits arise as a result of an economic downturn.

Development of net income in local government

The local government sector as a whole reported net income before extraordinary items of SEK 27 billion in 2017 (see chart 3.4). Both income and costs in the sector rose rapidly in 2017. The strong net income is largely attributable to favourable development of the tax base, at the same time as government grants also increased. In addition, revenue from sales of land and buildings also contributed to this net income. The Government's forecast of the local government sector's finances estimates net income at SEK 19 billion in 2018. Thereafter net income is estimated at SEK 14–16 billion per year in 2019–2021, corresponding to 1.5–1.9 per cent of tax income and general central government grants.

3.8 Central government guarantees

The Swedish Budget Act enables the Government to issue credit guarantees and make other similar undertakings for that purpose not exceeding the amount determined by the Riksdag. A central government guarantee undertaking means that central government provides a guarantee for another party's payment obligation, and this leads to a financial risk for central government.

General rules for the management of central government guarantees are set out in the Budget Act and in the Lending and Guarantees Ordinance (2011:211). Under these rules a guarantee charge corresponding to the expected cost of the undertaking is charged, unless the Riksdag decides otherwise. This cost consists of the expected losses and administrative costs associated with the undertaking. Expected losses are a statistical measure of the credit losses that estimates show may arise because of a certain probability that the guarantee holder or the borrower will not meet their obligations. Fees for expected losses are deposited in accounts with the National Debt Office or in banks or are invested in securities. Guarantee activities are thus expected to be self-financing in the long term. This regulatory framework is called the central government guarantee model. Examples of major guarantee commitments covered by this guarantee model are export credit guarantees and credit guarantees for infrastructure projects.

However, the Riksdag is able to decide that conditions other than those that follow from the guarantee model will be applied. The fees for such guarantees are usually stipulated directly in law and may be based on grounds other than the full recovery of expected costs. The deposit insurance scheme, which is by far the central government's largest guarantee commitment, and the investor compensation scheme are examples of guarantees regulated under special arrangements.

Guarantee capital for international financial institutions is not covered by the guarantee model either.

On the instruction of the Government, the Swedish National Debt Office performs a concerted analysis each year of the risk of large losses in the central government guarantee and lending portfolio along with the Swedish Export Credits Guarantee Board, the Swedish Board for Study Support, Sida (Swedish International Development Cooperation Agency), the National Board of Housing, Building and Planning and the other agencies concerned. The term large losses is defined by the Debt Office as tens of billions of Swedish kronor. The report for 2018 makes the assessment that the risk of large losses in the regular portfolio remains low. The risk of large losses in the form of direct activation of the deposit guarantee scheme is assessed as low to moderate.

Composition of the guarantee portfolio

Table 3.7 presents a summary of guarantees and commitments issued. At the end of 2017 the central government guarantee portfolio amounted to SEK 2 046 billion. The largest undertakings were the deposit insurance scheme (SEK 1 689 billion) followed by credit guarantees (SEK 210 billion) and guarantees for capital injections (SEK 138 billion).

Table 3.7 Central government guarantee commitments and pledges, 31 December 2017

SEK billions

	Guarantees	Pledges	Expenditure area
Deposit insurance scheme[1]	**1 688.6**		2 Economy and financial administration
Investor compensation[2]			2 Economy and financial administration
Credit guarantees	**210.4**	**51.1**	
of which			
Bank guarantee programme	0		2 Economy and financial administration
Export credit guarantees[3]	181.5	49.7	24 Industry and trade
Credit guarantees in foreign aid	0.9		7 International development cooperation
Independent guarantees	4	0.8	7 International development cooperation
Infrastructure	17.3		22 Transport and communications
Housing credits	2.8	0.1	18 Planning, housing provision, construction and consumer policy
International commitments	3.9	0.6	2 Economy and financial administration 7 International development cooperation 22 Transport and communications
Other	0		1 Governance 6 Defence and contingency measures 23 Land-based industries, rural areas and food
Guarantees for capital injections	**138.2**		
of which			
Capital cover guarantees[4]	4.3		22 Transport and communications
Subscription guarantees	0.4		22 Transport and communications
Guarantee capital[5]	133.5		2 Economy and financial administration 7 International development cooperation
Pension guarantees[6]	**8.4**		2 Economy and financial administration 16 Education and university research 22 Transport and communications 24 Industry and trade
Other guarantees	**0**		16 Education and university research 22 Transport and communications
Total	**2 045.6**	**51.1**	

[1] The commitment for the deposit insurance scheme is as of 31 December 2016.
[2] For the investor compensation scheme there is a lack of data regarding the scope of the protected assets.
[3] Refers to both restricted and unrestricted pledges.
[4] There are two capital cover guarantees for which no values have been estimated since the guarantees are not limited in terms of time and amount.
[5] The guarantee capital that refers to Eurofima is reported by the Swedish Transport Administration.
[6] The commitment for pension guarantees is as of 31 December 2016.
Source: Swedish National Debt Office.

Expected losses in the central government's guarantee portfolio

In the guarantees covered by the guarantee model, the responsible authorities continuously assess the expected losses. The authorities make provisions for the expected losses on the liabilities side of their balance sheets.

To obtain a result for the part of guarantee activities that covers guarantees for which a provision has been made, an analysis is carried out of the relationship between provisions for expected losses and the assets held in guarantee activities. This comparison shows that for the part of the guarantee portfolio covered by the guarantee model, the provisions for expected losses are amply covered by the charges already paid in (reported as guarantee assets in table 3.8).

Table 3.8 Comparison between provisions for expected costs and assets in the guarantee operations as of 31 December 2017 (excluding the deposit insurance scheme, investor compensation scheme, bank guarantee programme and guarantee capital)

SEK billions

Authority	Guarantee commitment	Provisions for expected costs	Guarantee assets
Swedish National Debt Office	29.7	0.8	1.4
The Swedish Export Credits Guarantee Board	181.5	10.4	33.5
Swedish International Development Cooperation Agency	4.9	0.2	2.3
BOVERKET - The Swedish National Board of Housing, Building and Planning	2.8	0.2	2.3
Total	**218.8**	**11.6**	**39.5**

Source: Swedish National Debt Office.

4 Alternative scenarios and comparison with Sweden's Convergence Programme 2017

4.1 Alternative scenarios

Forecasts of economic development are subject to uncertainty. To shed light on this uncertainty, this section presents some factors that could lead to a development that differs markedly from the forecast.

Strong economy but persisting uncertainty

Sweden is a small and open economy. This means that international developments have a great impact on domestic growth. The development of the global economy is uncertain.

The economic upturn in the euro area may be stronger than expected. This is shown, not least, by developments in the past year, when growth was surprisingly strong. Household and business confidence in the performance of the economy is at historically high levels. In addition, capacity utilisation in manufacturing has increased, and, when paired with a continuation of the expansionary monetary policy, this means that the conditions are in place for stronger investment growth. The countries in the euro area are Sweden's most important trading partners. Such a

development would therefore be of great benefit to Swedish export industry.

At the same time, there is great uncertainty about economic policy in several countries. The outcome of the exit negotiations between the EU and the UK may affect economic performance in both the UK and the EU countries that are closely linked to the British economy.

There is also uncertainty about the direction of the US Administration's policies, regarding both the economy and security. It is hard to assess how the development of the US economy will be affected by the extensive tax reform approved by Congress in December 2017, especially in the longer term. The US Administration has introduced tariffs on steel and aluminium imported into the country. EU countries, Canada, Mexico, Australia, Argentina, Brazil and South Korea have been given a temporary exemption until 1 May while negotiations are being held. There is great uncertainty about how this situation will develop in the future. The counter-measures in the form of new tariffs on other products in trade between China and the US are troubling. If the situation escalates further, and results in a general rise in protectionism or even in a trade policy conflict, this could lead to significantly weaker global growth. The same applies to a security policy crisis. Serious wars and conflicts can affect individual countries and whole regions. Climate change and the effects of extreme weather events are also risks to the global economy since they can result in major costs both for individuals and for society as a whole.

The high and rapidly growing debt in both the public and the private sector of the Chinese economy have long been a considerable risk to the global economy. At the same time, China has substantial buffers and the debts are mainly domestic. A severe slowdown of growth in China would have major impact on the world economy since Chinese demand for raw materials and other input goods is an important driver of global growth.

The start of 2018 was characterised by turbulence on stock markets in many countries. Similar episodes cannot be ruled out in the future. This is so if, for example, central banks, and especially the Federal Reserve, tighten monetary policy more quickly than expected or if investors become more risk averse. This could lead to rapid falls in asset prices and result in noticeable negative effects on the real economy.

Even though the situation in the European banking sector has improved, quite a number of European banks still have problems of weak profitability, partly due to a high proportion of doubtful loans, which make them vulnerable to financial disturbances. This can have a negative impact on financial stability in Europe.

Sweden is the OECD country where economic inequality has increased most since the mid-1990s. This rising inequality has largely been driven by growing capital income among top income-earners. Changes to the tax system are also an important explanation of the rise in inequality. Major income differences can lead to lower growth and social problems. A larger share of people with very high incomes can contribute to higher savings

and less consumption. Higher savings lead to lower interest rates, which then lead to higher asset prices and greater credit growth. This can create imbalances in the economy and increase the risks of financial turbulence and economic crises.

There are still financial vulnerabilities in emerging economies in the form of high private and public debt and weak balance sheets in the banking sector. Moreover, these economies are sensitive to rising international interest rates, which can lead to large and rapid capital outflows and weaker exchange rates. Since many loans are in foreign currencies, weaker exchange rates increase their vulnerability further.

In Sweden household debt and the development of house prices are still uncertainties that can affect the development of the economy. After several years of strong price rises, house prices fell at the end of 2017 and start of 2018. This was partly due to greater supply of newly produced cooperative housing. If there is a further fall in house prices, this may lead to lower housing investments. At the same time, households may choose to consume less because their total wealth decreases. Taken together, this results in lower growth.

The good development of incomes in recent years, the strong labour market and expectations of continued low interest rates are factors that suggest that housing demand will remain strong. In addition, the population has increased faster than the number of dwellings in the past decade. Moreover, most municipalities still report a shortage of housing. Taken together, this suggests that price growth will stabilise in the future, which would mean that the aggregate macroeconomic effects of the decline in house prices will be limited.

However, aggregate household debt remains high, amounting to more than 180 per cent of disposable income. More than 80 per cent of these debts consist of home mortgages, mostly at floating rates. If interest rates rise more than households have envisaged, this may have a negative impact on consumption since households' housing costs will be higher than expected.

At the same time, the Swedish economy is well equipped to address international and national risks. The large deficits in central government finances have been turned into surpluses, the central government debt ratio is at its lowest level since the late 1970s and unemployment has been pressed down.

GDP growth in Sweden can also be stronger than expected if, for example, household consumption rises faster than assumed. Household savings, as a share of disposable income, are at historically high levels, which indicates a degree of buffer savings. At the same time, households are optimistic about the development of both their own finances and Sweden's economy. If households reduced their savings, this would result in higher consumption. Demographic factors, such as the fact that the share of older people in the population is now increasing, point to lower savings, and therefore higher consumption, in the future.

Effects of different assumptions about the potential development of the economy

Potential GDP is an important part of the calculation of the structural balance. This is a theoretical concept and refers to the level of GDP that is consistent with an economy in balance. Potential GDP cannot be observed and must therefore be assessed on the basis of various indicators and statistical analyses. This assessment is subject to a great deal of uncertainty. One important part of potential GDP is an assessment of the level of equilibrium unemployment. Equilibrium unemployment is not an observable quantity either.

In the following a sensitivity analysis is presented in two different scenarios in which equilibrium unemployment in 2021 is assumed to be 1 percentage point higher and 1 percentage point lower than in the assessment in the present forecast of equilibrium unemployment. The result of this sensitivity analysis shows that the paths for equilibrium unemployment studied do not result in clear deviations from the surplus target.

Sensitivity analysis assuming higher equilibrium unemployment

The first scenario assumes that equilibrium unemployment is higher than in the forecast. The difference is 1 percentage point in 2021 and is driven by lower growth of potential employment. This results in potential GDP growing more slowly and in resource utilisation being more strained than in the forecast, all else equal. Higher resource utilisation means that pay is expected to grow faster. The inflationary pressure is therefore higher than in the main scenario and the Riksbank acts by pursuing a more contractionary monetary policy. A more contractionary monetary policy results in GDP growing more slowly. Given the higher level of interest rates, households choose to consume less and companies do not invest to the same extent. Also, a stronger exchange rate leads to lower export growth. Lower demand in the economy and a shortage of labour results in fewer hours worked and employment growth is weaker than in the forecast. This also impacts on unemployment, which is expected to rise.

The effects on general government net lending are assessed as being extremely marginal; this lending is estimated as being 0.1 per cent of GDP weaker. In contrast, given the weaker growth of potential GDP, the structural balance will be about 0.4 per cent lower in this scenario.

Sensitivity analysis assuming lower equilibrium unemployment

This scenario assumes that equilibrium unemployment is lower than in the main scenario and that the difference is 1 percentage point in 2021. This has the opposite effect compared with the previous scenario and potential GDP will therefore be higher and resource utilisation measured by the GDP gap will therefore, all else equal, be lower. Lower resource utilisation in the economy means that pay and prices are not forced upwards to the same extent as in the main scenario. Therefore the Riksbank raises the repo rate at a slower pace so as to ensure that inflation reaches the target of 2 per cent. In the short term a more expansionary monetary policy

stimulates demand in the economy and GDP growth is higher than in the main scenario. Higher growth results in faster growth in the number of hours worked and of people employed. Here, unemployment is expected to fall. In this scenario, too, the effects on general government net lending are extremely marginal. Net lending is reinforced in this scenario by, at most, 0.1 per cent of GDP. However, the stronger growth of potential GDP means that the structural balance is reinforced by 0.3–0-4 per cent in this scenario.

Table 4.1 Scenarios: 1 Higher equilibrium unemployment and 2 Lower equilibrium unemployment

The forecast according to the main scenario is shown in bold for each variable.
Percentage change unless otherwise stated

	2017	2018	2019	2020	2021
Equilibrium unemployment[1]	**6.4**	**6.4**	**6.3**	**6.2**	**6.2**
Scenario 1	6.8	6.9	7.0	7.1	7.2
Scenario 2	6.1	5.9	5.7	5.4	5.2
GDP[2]	**2.7**	**2.9**	**2.2**	**1.9**	**1.7**
Scenario 1	2.7	2.9	2.0	1.6	1.4
Scenario 2	2.7	2.9	2.3	2.1	1.9
GDP gap[3]	**0.7**	**1.4**	**1.3**	**1.0**	**0.5**
Scenario 1	1.2	2.0	1.9	1.5	0.9
Scenario 2	0.5	0.9	0.8	0.5	0.0
Employment, 15-74 years	**2.3**	**1.4**	**0.6**	**0.5**	**0.3**
Scenario 1	2.3	1.3	0.5	0.3	0.2
Scenario 2	2.3	1.5	0.8	0.8	0.5
Unemployment[4]	**6.7**	**6.2**	**6.2**	**6.1**	**6.1**
Scenario 1	6.7	6.4	6.5	6.6	6.7
Scenario 2	6.7	6.1	5.9	5.5	5.3
Hourly pay according to short-term pay statistics	**2.5**	**2.8**	**3.1**	**3.4**	**3.4**
Scenario 1	2.5	2.9	3.2	3.5	3.6
Scenario 2	2.5	2.7	2.9	3.2	3.4
CPIF[5]	**2.0**	**1.7**	**1.7**	**2.0**	**2.1**
Scenario 1	2.0	1.7	1.9	2.2	2.1
Scenario 2	2.0	1.7	1.6	1.8	2.0
Repo rate[5]	**-0.5**	**-0.5**	**0.0**	**0.5**	**1.2**
Scenario 1	-0.5	-0.5	0.3	0.8	1.5
Scenario 2	-0.5	-0.5	-0.3	0.2	0.9
Net lending[6]	**1.1**	**1.0**	**1.0**	**1.3**	**1.9**
Scenario 1	1.1	0.9	0.9	1.2	1.8
Scenario 2	1.1	1.0	1.0	1.4	2.0
Structural balance[7]	**0.7**	**0.5**	**0.5**	**0.8**	**1.7**
Scenario 1	0.7	0.2	0.1	0.4	1.3
Scenario 2	0.7	0.8	0.8	1.2	2.1

[1] 15–74 years, percentage of potential labour force.
[2] Data corrected for calendar effects.
[3] Difference between actual and potential GDP in per cent of potential GDP.
[4] 15–74 years, percentage of labour force.
[5] Annual average.
[6] Per cent of GDP.
[7] Per cent of potential GDP.
Sources: Statistics Sweden, Riksbank, National Mediation Office and own calculations.

4.2 Comparison with the 2017 Convergence Programme

GDP growth in 2017 was slightly lower than the assessment made in the 2017 Convergence Programme. However, in both 2018 and 2019 growth is expected to be higher than the assessment made in the Programme. The largest upward revision relates to 2018, and this is mainly because public

consumption and investments are expected to make larger contributions to the growth of demand.

Table 4.2 Comparison with the 2017 convergence programme

Annual percentage change in volume and per cent of GDP

	2017	2018	2019	2020	2021
GDP, percentage change in volume					
Convergence programme 2017	2.6	2.1	2.0	2.5	--
Convergence programme 2018	2.4	2.8	2.2	2.1	1.8
Difference, percentage points	-0.2	0.7	0.2	-0.3	--
General government net lending, per cent of GDP					
Convergence programme 2017	0.3	0.6	1.4	2.1	--
Convergence programme 2018	1.1	1.0	1.0	1.3	1.9
Difference, percentage points	0.9	0.4	-0.4	-0.9	--
Consolidated gross debt, per cent of GDP					
Convergence programme 2017	39.5	37.3	34.7	31.4	--
Convergence programme 2018	40.3	37.3	34.2	31.6	29.0
Difference, percentage points	0.7	0.0	-0.6	0.2	--

Sources: Statistics Sweden and own calculations.

5 Long-term sustainability of fiscal policy

This section presents an assessment of whether fiscal policy is sustainable in the long-term. The assessment is made on the basis of scenarios for the development of general government income and expenditure with unchanged rules, given various assumptions about growth, employment, etc. The purpose of the analysis is to pick up and identify, in ample time, signs that fiscal policy is unsustainable so that action can be taken at an early stage to restore its sustainability. The section also contains a comparison with the Government's previous assessments of the sustainability of fiscal policy, as well as with assessments made by other actors.

A sustainable fiscal policy reduces the risks of imbalances in general government finances and of sudden shifts in the fiscal policy being pursued. If the necessary adjustments are identified and implemented at an early stage, this limits the consequences so that more extensive measures do not need to be implemented at a later stage, often in far less orderly forms. Strong general government finances also create the conditions for managing crises in an orderly way. When needed, stabilisation policy measures can then be taken without endangering confidence in fiscal policy. It is therefore important that fiscal policy is sustainable and enjoys great confidence, both among households and companies and in international financial markets.

5.1 Long-term challenges

Sweden is facing demographic developments that may put strain on the economy. Rising life expectancy is leading to an ageing population, which can be expected to lead to greater public expenditure for social care and health care services. Moreover, a large number of, mostly young, people have immigrated to Sweden in recent years, which increases the need for labour market training and places in education and training. At the same time, this immigration reduces the average age of the population and can reduce the effects of an ageing population on public finances if the new arrivals enter the labour market.

It is not only a change in population structure that can affect general government finances. High costs of and increased demand for tax-financed services may also result in strain. How to deal with this is essentially a political issue. A lower level of ambition or higher taxes give different outcomes. However, these are not the only parameters that affect general government finances. The pressure on the general government finances can be moderated by extending working life in pace with increases in average life expectancy, increasing employment in groups where the employment rate is lower, increasing average working hours, improving public health and producing tax-financed services more effectively.

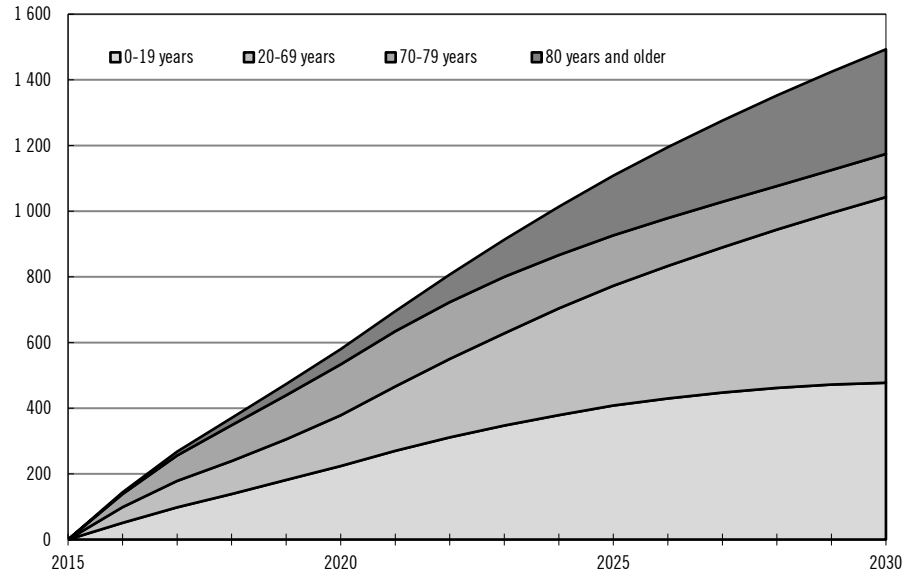
The size and composition of the population will change rapidly in the next 15 years

The Swedish population is expected to grow by about 1.5 million people between 2015 and 2030 according to the population forecast issued by Statistics Sweden in May 2017 (see chart 5.1). The population, which was around 10 million in January 2017, is expected to increase to around 11 million by the end of 2026 and just over 11.5 million in 2033. The population will then increase by more than 95 000 people per year in the period 2017–2030. The Swedish population has not grown that fast since the years immediately after the second world war. Children and young people account for around 32 per cent of this increase, and the people of

working-age (20–69) for around 38 per cent. The remainder consists of people aged 70 or older.

Chart 5.1 Population changes compared with 2015

Thousands



Source: Statistics Sweden

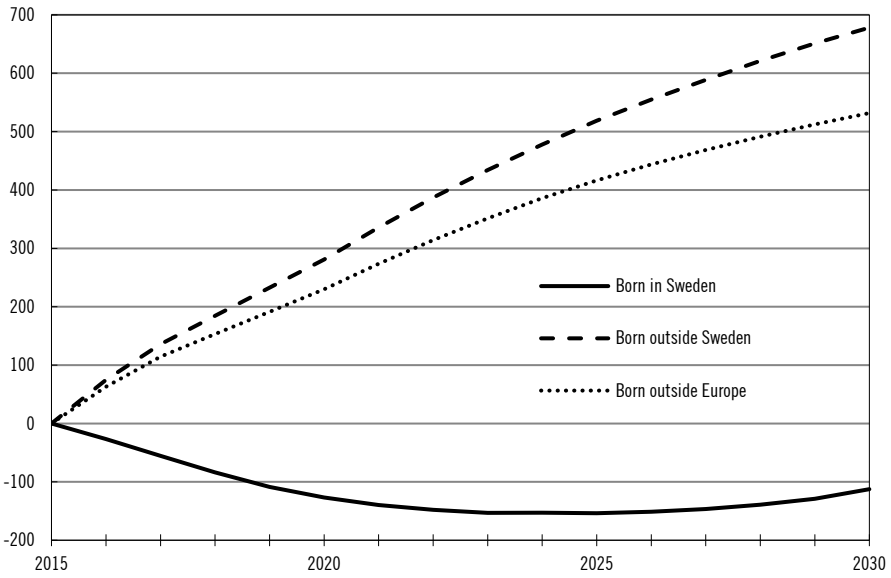
The numbers of young people and people of working age are expected to rise particularly quickly up until 2020, as immigration is expected to be large, while the very oldest segment of the population, people aged 80 or older, will gradually account for an ever increasing share of population growth after 2025. In the second half of the 2020s the number of people aged 80 or older is expected to grow particularly rapidly.

As a result of this development, the number of persons aged 70 or over per 100 persons of working age (20–69) will increase from around 22 in 2015 to around 27 in 2030. The number of persons aged 80 or older will increase from around 8 per 100 persons of working age in 2015 to more than 12 in 2030. In the same period the number of children and young people will increase from around 36 to 40 per 100 persons of working age. So it is mainly the production of childcare and education that will need to increase in the next few years, while demand for social care and health care will only increase faster after 2023.

The composition of the population is also going to change in the next 15 years in terms of country of origin. The number of people aged 20–69 who were born in Sweden will very likely decline by about 150 000 up to the mid-2020s, and will then remain more or less unchanged (see chart 5.2). This forecast is relatively certain since it does not depend on any assumptions about fertility and since the changes in mortality and the propensity to migrate in this population group are insignificant.

Chart 5.2 Population aged 20–69

Change compared to 2015, thousands of persons



Source: Statistics Sweden.

The number of persons aged 20–69 years born abroad is much more difficult to estimate because inward and outward migration among people born abroad varies strongly. However, one conclusion that can be drawn is that net immigration must remain positive for the next 15 years to prevent a decline in the working age population.

The bulk of net immigration is expected to comprise people born outside Europe, meaning continued change of the composition of the working age population. In 1980, around 500 000 people, or around 10 per cent of the population aged 20–69, were born abroad. Of these, the vast majority, around 90 per cent, came from countries in Europe, mainly our neighbouring countries. In 2010 the number of people born abroad in this age group had increased to almost 1.1 million, and almost half of them were born outside Europe.

The average age of the population is rising

When life expectancy rise, the proportion of older people in the population increases. chart 5.3 illustrates this development with the 'old-age dependency ratio', which is defined as the number of persons aged 70 or older per 100 persons in the 20–69 age group. After being more or less unchanged from the mid-1980s to 2010 the number of older people has shown a clearly faster increase than the number of people of working age in recent years. This trend is expected to continue for the rest of the present century. In 2010 there were fewer than 20 people aged 70 or over per 100 persons aged 20–69. This figure is expected to increase to around 27 in 2030, around 31 in 2050 and around 39 in 2100.

Chart 5.3 Old-age dependency ratio

Number of persons aged 70 or over per hundred persons aged 20–69

Sources: Statistics Sweden and own calculations.

Since people immigrating to Sweden are younger, on average, than people born in Sweden, an increase in immigration reduces the demographic dependency ratio. chart 5.4 shows a demographic dependency ratio in which the number of people who are younger or older than the 20–69 age group are related to that age group. When only people born in Sweden are counted, the number of younger and older people increases rapidly up to the mid-2030s. In the whole of the population the number of younger and older people increases more slowly in relation to the working age population and does not reach the same levels. People born abroad help to reduce the dependency ratio in every year. The difference is greatest at the end of the 2030s. The fact that there is such a large difference in the dependency ratio between people born in Sweden and the average for the whole of the population shows the potential represented by people born abroad and underlines the importance of well-functioning integration of these people.

Chart 5.4 Demographic dependency ratio

Number of people aged 0–19 years and over 69 years per 100 people aged 20–69 years

Sources: Statistics Sweden and own calculations.

The effect of changes in the age structure of the population on general government finances arises because an average individual influences general government income and expenditure in different ways over their lifetime. To a great extent, the expected population increase takes place in the age groups, the youngest and oldest, in which expenditure on welfare services and transfer payments is substantially higher than payments of tax. This means that demographic developments tend to worsen general government net lending. However, the effect on public finances also depends on how the financial exchange with the public sector changes in different age groups. For example, a longer working life increases general government income while better health leads to a decrease in the costs of health care and social care.

The costs of services are rising faster than the average growth of costs

Yet another challenge for fiscal policy is that hourly pay in tax-financed sectors such as education, childcare and elderly care can be assumed to increase at the same rate as in other production without this corresponding to any increase in productivity. This means that the unit cost of tax-financed services increases gradually in relation to the average cost increase. This effect is usually called Baumol's Law. For the public sector it means that the cost of providing an unchanged volume of childcare and elderly care tends to rise more rapidly over time than the general growth of prices in society.

There is disagreement about to what extent Baumol's Law applies to all tax-financed activities. In the National Accounts productivity growth in the tax-financed sector has been close to zero since it began to be measured. But this does not mean that productivity cannot increase in parts of tax-financed service production, in health care for instance. At the

same time, it is difficult to identify productivity changes in the public sector since the bulk of its production is not priced.

5.2 A scenario for long-term development

The section presents a scenario that illustrates the challenges described in previous sections. The scenario starts from the demographic changes in Statistics Sweden's population forecast. It should be underlined that the scenario does not present the most likely development. Instead, its purpose is to illustrate the consequences of a development where there is no change to the rules for public income and expenditure and no change in behaviour regarding labour force participation and use of tax-financed services. The ambition is to identify and analyse future challenges by studying what size of adjustments need to be made to current rules concerning general government revenues and expenditures so as to achieve long-term balance in general government finances. Alternative scenarios based on various assumptions make it possible to cast light on which factors strengthen the long-term sustainability of fiscal policy and which weaken it.

The calculations are based on assumptions

The long-term projections of public income and expenditure are based on the assessment of the development of the Swedish economy up until the end of 2021 presented in sections 2 and 3. In 2017 the primary balance in the general government sector, i.e., net lending adjusted for capital income and capital expenditure, was around 0.3 per cent of GDP. In 2018–2021 general government net lending is strengthened. In 2021 the general government primary balance is estimated to correspond to 0.9 per cent of GDP, which is the starting point for the projection of developments in later years.

Productivity in the business sector is assumed to increase by 2.2 per cent per year in the long term. But productivity in the production of tax-financed services is assumed to be unchanged, irrespective of whether they are produced by public or private providers. The difference in the productivity trend, along with an assumption of the same pay growth across the entire economy, leads to a faster increase in the costs of tax-financed production than in the business sector. This is an effect of Baumol's Law, which was described above.

In this scenario, the population's labour market behaviour is assumed to remain largely unchanged as of 2021. This means that labour force participation, unemployment and average working hours for people of different ages, countries of origin and gender are assumed to remain constant after 2020. An average woman or man of a particular age with a particular country of origin is assumed to work just as much in the future as they do today.

The scenario is also based on the assumption that the general government commitment remains unchanged as of 2021. This means that tax rates are

kept at the same level as in 2021, i.e., their share of the tax base is constant. For tax-financed activities it is assumed that the standard is unchanged, expressed as resource input per user. For example, it is assumed that a 90-year-old will receive the same number of hours of elderly care in the future as a 90-year-old does today. Since no change is assumed in the productivity in the production of tax-financed services, general government consumption will develop at the same rate as the number of hours worked. The compensation rate in the transfer systems is also assumed to be unchanged, so that transfer payments per individual develop in parity with the hourly pay of people in employment. This means that transfer payments that, according to regulations, are set nominally or only track the development of prices are also assumed to increase in line with average pay as of 2022.

Demographic developments primarily affect expenditure for welfare services that are the responsibility of municipalities and county councils. However, the projection focuses on the general government commitment as a whole and the general government sector is therefore regarded as a single entity in this context. One central assumption is that the central government has the overall responsibility for financing tax-financed welfare provision. Central government grants are adjusted in the calculations so as to meet the balanced budget requirement of the Swedish Local Government Act.

Fiscal policy is sustainable in the long term given the assumptions used

The period up until 2030 is characterised by demographic changes that tend to increase general government primary expenditure (i.e. excluding interest expenditure) as a proportion of GDP (see chart 5.5). After 2030 this expenditure is expected to increase at a slower rate than GDP. Expenditure increases by around 1.2 per cent of GDP between 2020 and 2030 because the large cohort born in the 1940s – a group that, in relative terms, demands more social care and health care services – reaches ages over 80 at the same time as people born in the 1960s start to exit the labour market. The primary balance is negative in these years (see chart 5.6).

Table 5.1 shows the development of primary general government expenditure by purpose. It can be noted that, with unchanged policies, the primary expenditure ratio falls rapidly until 2021, and then rises slightly until 2030, after which it begins to fall again. One explanation for this trend is that expenditure on transfer payments decreases by 0.8 per cent of GDP between 2017 and 2021. After 2021 transfer payments remain more or less unchanged as a share of GDP up until 2050. The main reason for the decline until 2021 is that payments from the old-age pension system do not rise as quickly as GDP.

In the no change in behaviour scenario the consolidated gross debt decreases from about 41 per cent of GDP in 2017 to around 24 per cent of GDP in 2025, and then rises by just less than one per cent of GDP to 2030 (see chart 5.7). The gross debt will then be below the tolerance interval for the debt anchor, according to which the gross debt has to

correspond to 35 per cent of GDP, plus/minus 5 per cent of GDP. In this scenario, the S1 indicator is -3.0 per cent of GDP (see
). That is the size of the permanent budget weakening required in 2019 for the gross debt to correspond to 60 per cent of GDP in 2032.

Developments after 2030

The demographic cost pressure lightens after 2035 and primary expenditure decreases to less than 45 per cent of GDP in the long term. The main reason for the long-term trend of falling expenditure is that general government investments and consumption expenditure decrease as a share of GDP (see table 5.3). One reason for the decrease in consumption expenditure is the assumption that there is no improvement of standards in tax-financed welfare services when GDP, and therefore income, increases. General government transfer payments are virtually unchanged as a proportion of GDP after 2030.

Table 5.1 Primary general government expenditure if there is no change in behaviour

Per cent of GDP

	2015	2020	2030	2050	2100
Primary expenditure	**47.6**	**45.9**	**47.1**	**45.5**	**44.6**
General government consumption	26.0	25.1	26.0	25.2	24.8
Childcare	1.8	1.7	1.7	1.6	1.4
Education	4.9	4.7	4.8	4.2	3.7
Healthcare	5.9	5.9	6.1	5.9	5.7
Social care	4.1	4.0	4.5	4.9	5.9
Other	9.3	8.9	9.0	8.5	8.0
Investments	4.4	4.6	4.6	4.0	3.0
Transfer payments	17.1	16.2	16.5	16.3	16.9

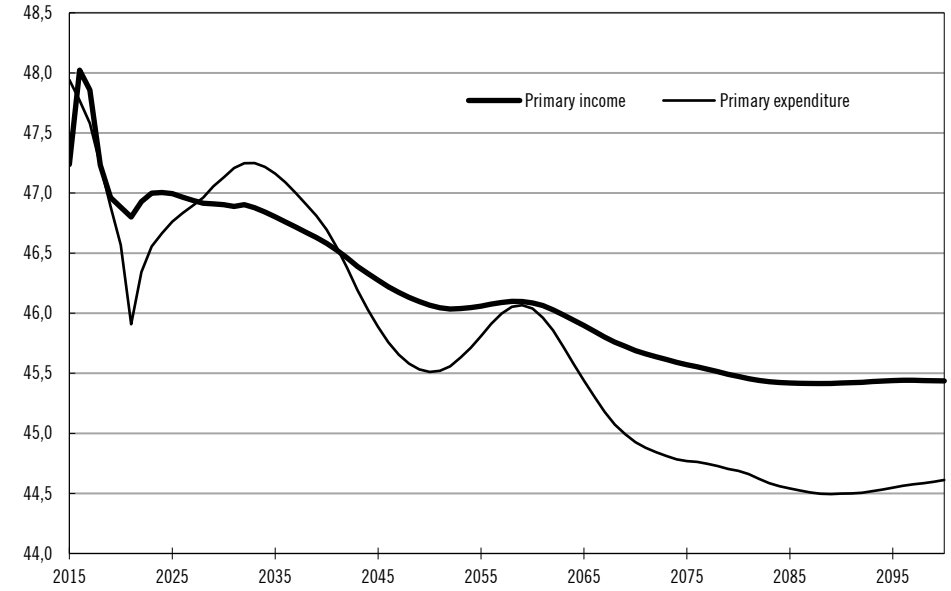
Sources: Statistics Sweden and own calculations.

After 2030 expenditure for general government consumption decreases as a share of GDP up until 2100. Expenditure for social care, which include care services for both older people and people with disabilities, is the only expenditure item to continue to show rising GDP shares after 2030, while expenditure for health care is relatively stable as a share of GDP.

The most important tax bases (and therefore tax income) are largely steered by the performance of the labour market. Primary income amounts to around 47 per cent of GDP in the first part of the projection period (see chart 5.5), but declines slightly after 2035.

Chart 5.5 General government revenue and expenditure if there is no change in behaviour

Per cent of GDP

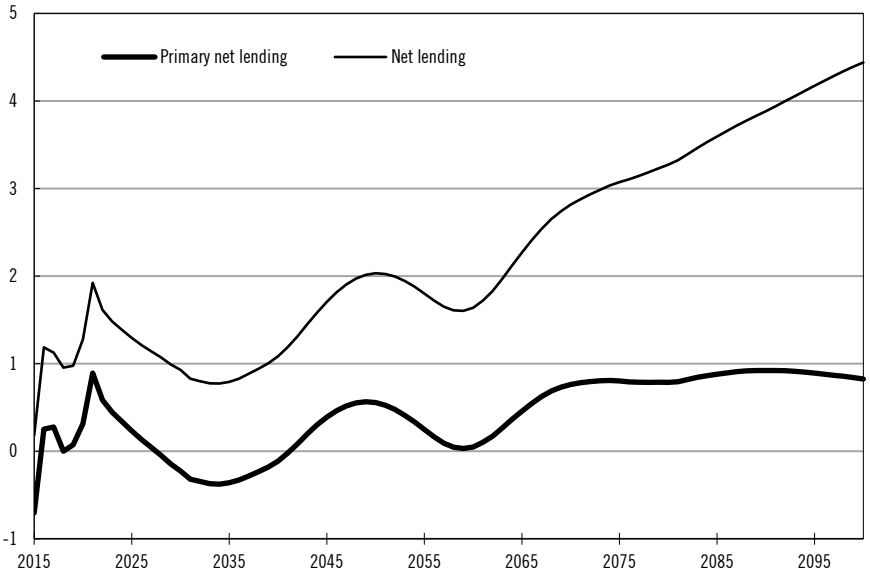


Sources: Statistics Sweden and own calculations.

The primary balance reaches a minimum around 2035 and corresponds in the long term to around 0–1 per cent of GDP (see chart 5.6), while net lending tends to increase more quickly than GDP in the long term. The cause of this gradually widening difference between net lending and the primary balance is the increasingly large yield from net financial assets. In the long term the high level of the primary balance contributes to a sharp reduction in consolidated gross debt and the steady growth of financial assets (see chart 5.7).

Chart 5.6 General government revenue and expenditure if there is no change in behaviour

Per cent of GDP

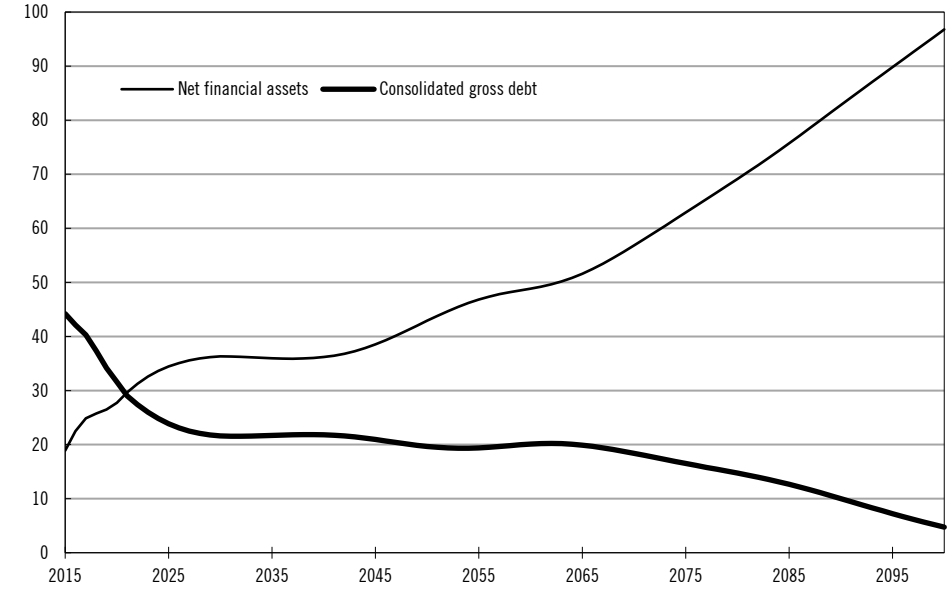


Sources: Statistics Sweden and own calculations.

The trend described cannot be interpreted as a forecast of actual development. It is, in actual fact, highly likely that current rules for general government income and expenditure would be changed if a surplus of the size indicated in chart 5.6 arose.

Chart 5.7 Net lending if there is no change in behaviour

Per cent of GDP



Sources: Statistics Sweden and own calculations.

Two indicators, called the S1 and S2 indicators are used to summarise the results of the calculations. They show the size of the permanent change in general government net lending that is needed in a given year for the general government debt to develop as wanted[2]. In the calculations, 2019 is the year when the permanent change in general government net lending can be made since it is the first year for which the Government can propose a new budget for central government.

The S1 sustainability indicator is -3 per cent of GDP, calculated from 2019. The relatively large negative S1 value shows that the present volume of public income and expenditure can very likely be maintained up until 2032 without the gross debt exceeding the limit value of the Stability and Growth Pact. This means that fiscal policy is sustainable by a good margin according to that criterion.

The S2 sustainability indicator is -0.7 per cent of GDP. Strictly interpreted, this means that net lending can be permanently weakened by 0.7 per cent of GDP in 2019, at the same time as net debt is stabilised over the very long term. So fiscal policy is also sustainable when assessed in this way. However, the S2 value should not be interpreted as an actual fiscal space for reform since the indicator is based on assumptions about developments over a very long period of time. But the change in the

[2] For a more exhaustive description and definition of the indicators see, for example, Annex A2, European Commission, "Fiscal Sustainability Report 2015", European Economy, Institutional Paper No. 018, January 2016.

indicator value when alternative assumptions are used gives an indication of what factors strengthen the sustainability of fiscal policy and what factors impair it.

5.3 Conditions can change

The scenario presented above builds on a number of assumptions about the development of labour supply, productivity, etc. (this scenario is called the reference scenario below). Some alternative calculations varying different assumptions are carried out so as to cast light on the effect of alternative developments and illustrate which factors are of more or less importance for the development of general government net lending and to thereby enable a more exhaustive assessment to be made of the sustainability of the fiscal policy. Factors that strengthen net lending are considered first, followed by those that weaken it.

More people in employment and a longer working life strengthen sustainability
Older people today can look forward to a considerably longer retirement than earlier generations. Both the age of exit from the labour market and average life expectancy have risen in recent decades, but the exit age has risen at a slower rate than average life expectancy, especially for men (see table 5.2). In 2016 the exit age was 63.9 years on average, while the expected remaining life expectancy at the age of 65 was around 20 years.

Table 5.2 Exit age and remaining life expectancy
Per cent of GDP

	Women		Men	
	1990	2016	1990	2016
Exit age	61.7	63.3	63.0	64.3
Remaining life expectancy at 65	19.0	21.5	15.3	19.0

Sources: Statistics Sweden and the Swedish Pensions Agency.

A number of factors suggest that the exit age may rise in the future. Better health, in combination with fewer people having physically demanding jobs, has improved conditions for continuing to work later in life. Moreover, the level of education is higher than in the past and people with a higher education usually leave the labour market later than people with no higher education.

There are also financial drivers in the pension system for people to postpone their exit from the labour market. If people do not postpone their exit from the labour market, the average old-age pension will increase more slowly than the incomes of working people because the pension becomes lower when average life expectancy increases and the pension rights earned must be allocated over additional years of retirement. Such a development could create sustainability problems if more pensioners qualify for other benefits, for instance guarantee pension and housing supplement for pensioners. In addition, low pensions may lead to demands for compensation in the form of more generous pension rules or

tax reductions, for instance. Creating good conditions for a longer working life is therefore a matter of urgency.

To contribute to the development of pensions in line with other income, the cross-party Working Group on Pensions agreed in December 2017 on a number of regulatory changes that raise the retirementage. In brief, the proposal of the Working Group on Pensions is to gradually raise the lowest age for taking the national pension from 61 years at present to 64 years in 2026. In addition, the possibility of obtaining guarantee pension would be linked in the longer term to a guide age that increases with average life expectancy at the age of 65.

If the exit age rises in in line with average remaining life expectancy at 65, which is expected to increase by around 1.5 years between 2015 and 2030, and by an additional 2 years or so by 2050, the labour supply will increase by around 1.6 percent in 2030 and 3.7 per cent in 2050 compared with the reference scenario. Here the exit age has been assumed to increase by two-thirds of a year for each year that average remaining life expectancy at 65 increases. In the calculation this means that GDP and general government tax income rise at a faster rate, but also that the costs of unemployment insurance, sickness insurance and disability pensions will increase in proportion to the higher labour supply.

Compared with The S1 indicator improves by around 0.2 per cent of GDP to -3.2 and the S2 indicator improves by 1.8 per cent of GDP to -2.5. This scenario shows that a longer working life is important for the long-term financing of welfare provision.

Quicker integration of people born abroad

Even though attachment to the labour market among people born abroad has strengthened in recent years, it is still significantly weaker than among people born in Sweden. In 2014 the employment rate was just under 59 per cent among people born abroad aged 15–74 years, compared with 68 per cent among people born in Sweden. In addition, unemployment among people born abroad was 16 per cent, compared with 6 per cent among people born in Sweden. Attachment to the labour market also differs between different groups of people born abroad; for instance asylum seekers born outside Europe are unemployed to a greater extent than other people born abroad. Other important factors are period of stay in Sweden and level of education. In general, women born abroad have lower labour market participation than men born abroad. The high number of asylum seekers in recent years, which reduces the average period of stay in Sweden among people born abroad, indicates that these average values may fall in the future. But if immigration returns to previous levels, the average period of stay will again increase, which can be expected to increase the employment rate.

Faster integration of newly arrived immigrants improves the sustainability of fiscal policy through greater tax revenue and lower expenditure on, for instance, municipal financial assistance, housing allowance and labour market support. To assess the effect of faster

integration of newly arrived immigrants, the difference in employment rate between people born abroad and people born in Sweden is assumed to be halved between 2021 and 2030. Doing so increases the number of hours worked in the economy by 2 per cent up until 2030. This makes the primary balance so much higher that the deterioration of net lending caused by demography over the next 15–20 years is offset and that S1 and S2 improve by 0.6 and 0.9 per cent of GDP.

Rising prosperity can put pressure on general government expenditure

The above calculations show that the sustainability of fiscal policy improves if the supply of labour increases. But there are other possible developments that may put pressure on general government finances.

In Sweden welfare services such as health care, social care and education are largely provided via the public sector at low or no cost for the user. This ensures that welfare services can be used according to need and not according to ability to pay. One argument for such a system is that is has positive distributional effects. Another argument is that the social benefit of welfare services is often greater than the benefit for the individual since they generate what are called positive external effects. Education, health care and childcare are examples of services that are often of benefit not only to users but also to society as a whole. The importance of an equal distribution of welfare services and the existence of positive external effects indicate that the production of welfare services should continue to be largely financed by taxes in the future.

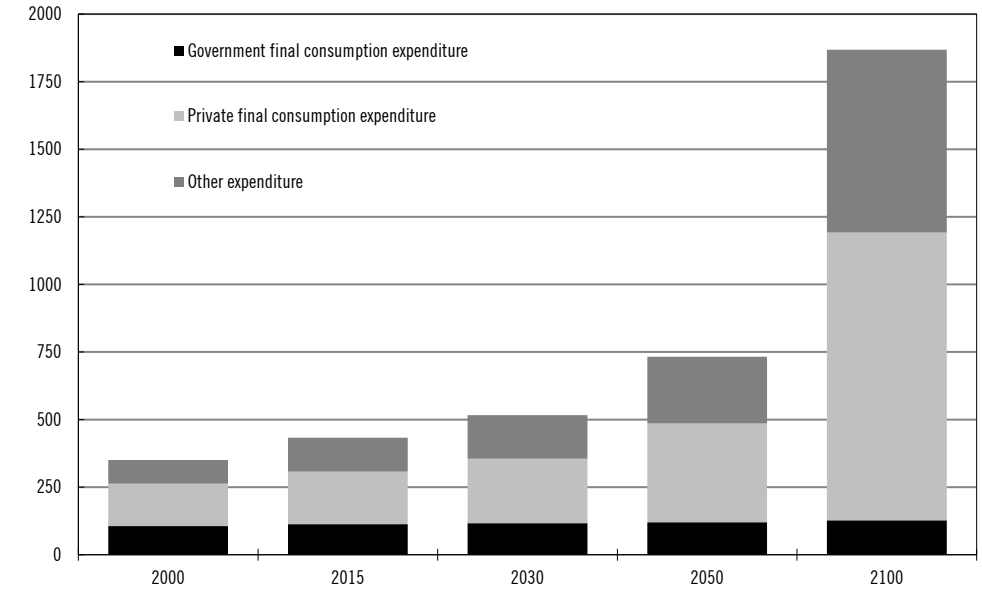
Higher demand for welfare services is a potential challenge for the fiscal policy of the future. At the same time, prosperity and resources are growing, which means that there is more possibility of meeting this challenge. Chart 5.8 shows that per capita GDP in constant prices in the reference scenario is expected to be almost twice as high in 2050 as in 2015, and more than four times as high in 2100. Household consumption expenditure increases slightly faster than GDP in the calculation, while public consumption in constant prices only increases to a limited extent. This means that in the future the population will have more resources to use for the consumption of goods and services, including welfare services. The great challenge is therefore not a future shortage of resources but the possibility of maintaining the present high share of common financing of the increasing needs.

To demonstrate the consequences of the changes in demand that may take place on account of greater prosperity it is assumed that the annual working hours per employee decease by 0.1 percent per year as of 2022 compared with the reference scenario. The roughly matches the decrease in average working hours in the period 1980–2009. The pension age is assumed to be the same as in the reference scenario. This decrease can be assumed to increase the demand for leisure, a shorter working week, more days of annual holiday, etc. as GDP and material prosperity increase. At the same time, it is assumed that public consumption, in volume terms, grows 0.4 per cent faster per year than is motivated by demographic

factors. This means that there is an increase in the standard of welfare services offered by the public sector.

Chart 5.8 GDP per person

SEK thousands, 2016 prices



Sources: Statistics Sweden and own calculations.

In this scenario the average working hours are assumed to be 15 hours shorter in 2030 and 120 hours shorter in 2100 than in the reference scenario (corresponding to about three full-time weeks per year or about just over a half hour per working day). As a result, tax income and the possibilities of financing welfare provision decrease. The financing problems are amplified further if the standard of public services increases gradually. In this scenario, staff ratios in health care, schools and social care increase so that the number of hours worked in the public sector is, in aggregate, just over 2 per cent higher in 2030 and 17 per cent higher in 2100 than in the reference scenario. This means that there is a corresponding decrease in the number of working hours available for production in the business sector. As leisure increases, the number of hours worked in the whole of the economy decreases and the standard of tax-financed services is raised, the public sector is exposed to greater pressure for change so as to make fiscal policy sustainable.

In this scenario, primary net lending is weakened considerably compared with the reference scenario, and this impairs sustainability (see table 5.3). The S1 indicator is -2.3, which is a weakening by 0.7 per cent of GDP compared with the reference scenario, and the S2 indicator is 12.2 per cent of GDP. According to the S2 indicator this development is therefore unsustainable in the long term. About a third of the high S2 value is due to a decreasing supply of labour when leisure increases and two thirds of it is due to increasing tax-financed production of welfare services.

5.4 Sensitivity of the calculations and comparison with previous assessment

This section deals with the sensitivity of the calculations to different assumptions and makes a comparison with the sustainability assessment made in the 2017 Swedish Convergence Programme.

Fiscal policy is sustainable in most scenarios

The S1 and S2 sustainability indicators show that fiscal policy is long-term sustainable in a scenario based on no change in behaviour. However, this result should be interpreted with caution for several reasons. The fiscal policy challenges addressed in this section have an effect over the very long term, so the calculations often extend far into the future. The long calculation horizon involves a considerable degree of uncertainty. It should also be taken into account that the calculations are strongly dependent on the assumptions made. As has already been noted, the calculations are not to be interpreted as forecasts of a probable development, but rather as impact analyses of the effect of different changes in the assumptions applied in the calculation.

Table 5.3 Sustainability indicators

Per cent of GDP

	S1	S2
No change in behaviour	**-3.0**	**-0.7**
No change in working life share	-3.2	-2.5
Better integration	-3.6	-1.6
Higher demand for leisure and welfare services	-2.3	12.2

Note: Positive values show that net lending must be strengthened permanently in order for fiscal policy to be sustainable in the long term, and negative values show that a permanent weakening is possible.
Source: Own calculations.

Table 5.3 summarises how the alternative assumptions on which the calculations are based affect S1 and S2. In general, it can be said that fiscal policy is sustainable in most of the calculations. S1 is negative in all the scenarios presented, and S2 is only positive in the scenario with higher demand for leisure and welfare services. If decreasing average working hours are assumed, a higher standard of service production cannot be financed with unchanged tax rates in the long term.

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

Fiscal policy is assessed as being long-term sustainable in a scenario with no change in behaviour, in which no unfinanced reforms apart from those already adopted or announced in the 2018 Spring Fiscal Policy Bill (Govt Bill 2017/18:100), are implemented. S1 is then -3 per cent of GDP and S2 is -0,7 per cent of GDP. Net lending and the consolidated debt are within the limits set by the Stability and Growth Pact in most of the scenarios

presented. This means that an important requirement that forms the basis for market evaluations of sustainability is met.

The period of 2020-2035 is characterised by growing pressure on expenditure arising from demography. Primary general government expenditure is judged to increase by just under 1 per cent of GDP in these years on account of increased demand for tax-financed services generated by demography. This development points to the need for a policy that continues to focus on reducing unemployment and increasing the number of hours worked. The pension system, as such, creates strong incentives to work to an older age when average life expectancy increases since pensioners' incomes decrease in relation to those of people in work if the exit age from the labour market is not postponed. However, if working life is extended in line with the increase in average remaining life expectancy at 65, the sustainability of the fiscal policy improves substantially.

For pensioners and other citizens to enjoy a good economic standard and for high-quality publicly financed services to be provided, as many people as possible must have a long and productive working life. Increased average life expectancy presents the opportunity to increase both leisure and time spent working. As average life expectancy increases, it is therefore important that labour force participation is high and working life is long and sustainable for both women and men.

Other assessments of the sustainability of the fiscal policy.
Both the National Institute of Economic Research (NIER) and the European Commission have recently published assessments of the long-term sustainability of Swedish fiscal policy (see Occasional Study, "Fiscal Sustainability report 2018", NIER, February 2018 and Debt Sustainability Monitor 2017, European Economy, January 2018). The NIER assessment is that fiscal policy is sustainable both up until 2040 and from a very long-term perspective, while the Commission's assessment is that the risk of an unsustainable development is very low in the short, medium (up until 2032) and long term. Summary sustainability indicators are presented in table 5.4.

Table 5.4 Sustainability indicators for Sweden

Per cent of GDP

	S1	S2
Government	-3.0	-0.7
Swedish National Institute of Economic Research (Mar 2016)		-0.6
European Commission (Jan 2016)	-3.9	0.5

Note: The values of the indicators are not directly comparable as they are calculated based on different assumptions.
Sources: Swedish National Institute of Economic Research, European Commission and own calculations.

Different starting points explain much of the difference between the Government's, the Commission's and the NIER's conclusions on the sustainability of fiscal policy.

The Commission uses the S1 and S2 indicators to make its assessment of the sustainability of fiscal policy in the medium term, up until 2032, and in the very long term. Since there are only 14 years left to 2032, the initial debt level means a great deal for the value of S1. If general government debt is far away from 60 per cent of GDP, major changes to fiscal policy are needed to reach this debt ratio.

The Commission calculates the effects of fiscal policy over an infinite horizon. The present level of debt is of less importance for the result of these calculations. Instead, the initial level of net lending is more important. The Commission divides its S2 value up into an initial condition, i.e. the initial fiscal position, which contributes -0.4 percentage points of Sweden's S2 value of 0.5 per cent of GDP and a forward-looking part that contributes the remaining 0.9 percentage points. In the latter component, rising costs of elderly care, in particular, contribute to the rise in S2. According to the Commission's assessment in its latest long-term calculation, the structural primary balance corresponds to 0.8 per cent of GDP in 2019, which is the year when the cost estimates begin. For 2021, the final year of the Government's medium-term forecast, the Commission assesses the structural primary balance as 1 per cent of GDP, which is slightly higher than the Government's assessment.

In addition to its picture of the starting point, the Commission also makes a different assessment from the Government regarding the calculation of future expenditure for general government consumption. The Commission calculates a cost per person using tax-financed services and then lets it rise in pace with per capita GDP up until 2060. Thereafter the Commission projects expenditure for general government consumption in line with population growth. The Government instead assumes that the staffing ratio in publicly financed production is unchanged.

Like the Government, the NIER assumes that the number of hours worked in the general government sector is constant per individual using the service. However, unlike the Government, the NIER assumes, at the same time, that the sums spent on input goods in this production (e.g. rent, computers, medical and other equipment, etc.) grows at the same rate as pay costs. The Government instead assumes that expenditure on input goods only rises in pace with the number of services produced and price growth of these input goods. This difference in the assumptions used means that expenditure on general government consumption as a share of GDP increases relatively fast in the NIER assessment, reaching a higher GDP share than ever before in the longer term. This development differs significantly from the Government's calculation, in which consumption decreases as a share of GDP up until 2020 and only increases by around 0.5 per cent of GDP in the subsequent ten-year period (see table 5.1).

It is also worth noting that the Commission uses a different population forecast from the Government. The Commission uses Eurostat's population forecast Europop2013, which was published in March 2014, while the Government uses Statistics Sweden's population forecast from

April 2017. Since the calculations build to a great extent on the demographic input, their result is dependent on the population forecast used. The results also differ for other reasons, for instance on account of different assumptions about potential growth rates, rates of price increases, interest rates, the supply of labour and unemployment.

6 Quality in general government finances

6.1 Expenditure

The consideration of total expenditure and revenue is not sufficient to assess the structure of general government finances. For this reason, revenue and expenditure are reported at a more detailed level below. Principles have been developed at the EU level for the production of uniform statistics on each Member State's distribution of general government finances (COFOG classification)[3]. Uniform statistics facilitate comparisons between different Member States' general government expenditure, as well as of their development over time. Additional information and a higher level of detail are required to be to evaluate whether a change in the composition of general government expenditure has influenced long-term growth. However, the distribution of general government expenditure between different purposes, and the change in this distribution over time, show how different types of expenditure and purposes have been prioritised and provide an indication of the direction of policy.

[3] COFOG (Classification of the functions of Government) is a tool for reporting and analysing the purposes of the goods and services provided by general government bodies. The classification follows an international standard.

Table 6.1 Ändamålsfördelade offentliga utgifter, procent av BNP

Procent av BNP

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Change 2006–2016
General public services	7.7	7.7	7.8	7.4	7.4	7.7	7.7	7.8	7.5	7.0	6.6	-1.1
Interest payments	1.7	1.8	1.7	1.3	1.2	1.3	1.1	1.0	0.8	0.6	0.6	-1.2
Other	6.0	5.9	6.1	6.1	6.2	6.4	6.6	6.8	6.7	6.4	6.0	0.0
Defence	1.6	1.5	1.5	1.5	1.5	1.4	1.4	1.5	1.3	1.1	1.2	-0.5
Public order and safety	1.3	1.3	1.3	1.4	1.4	1.3	1.4	1.4	1.3	1.3	1.3	0.0
Economic affairs	4.0	3.9	4.2	4.5	4.4	4.4	4.5	4.3	4.3	4.2	4.1	0.2
Environmental protection	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	-0.1
Housing and community amenities	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.0
Health	6.4	6.4	6.6	7.1	6.8	6.8	6.9	7.0	7.0	6.9	6.9	0.5
Recreation, culture and religion	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.1
Education	6.6	6.3	6.4	6.8	6.5	6.4	6.5	6.6	6.6	6.5	6.6	0.1
Social protection	21.3	20.2	20.1	21.8	20.7	20.1	20.8	21.3	20.8	20.4	20.6	-0.7
Total expenditure	**51.0**	**49.3**	**50.1**	**52.7**	**50.8**	**50.3**	**51.4**	**52.0**	**51.1**	**49.6**	**49.4**	**-1.6**
Excluding interest	49.3	47.6	48.4	51.4	49.6	49.0	50.3	51.1	50.3	49.0	48.9	-0.4

Källor: Statistiska centralbyrån och egna beräkningar.

Expenditure as a proportion of GDP (the expenditure ratio) fell by almost 2 per cent of GDP between 2006 and 2007 to below 50 per cent. After increasing temporarily in the wake of the financial crisis in 2009, the expenditure ratio has fallen and in 2016 the expenditure ratio was again less than 50 per cent of GDP.

As shown in table 6.1 and 6.2, expenditure on social protection in Sweden in 2016 accounted for more than 20 per cent of GDP and more than 40 per cent of total general government expenditure. This expenditure declined as a proportion of total expenditure around the mid-2000s, but rose again in 2009 in connection with the financial crisis. Since then expenditure on social protection has varied around 40–42 per cent of total expenditure. Expenditure on health care also accounts for a large share of general government expenditure. After being just over 12 per cent of total expenditure in 2006, this share rose for several years and was almost 14 per cent in 2016. There has been a large decrease in the proportion of expenditure consisting of interest payments. This is mainly because general government consolidated gross debt has fallen sharply as a proportion of GDP at the same time as the level of interest rates has been relatively low.

Table 6.2 General government expenditure by purpose, per cent of total expenditure

Per cent of total expenditure

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Change 2006–2016
General public services	15.2	15.6	15.5	14.1	14.5	15.2	15.0	15.0	14.7	14.1	13.4	-0.7
Interest payments	3.4	3.6	3.4	2.5	2.3	2.5	2.1	1.8	1.6	1.2	1.2	-2.4
Other	11.7	12.0	12.1	11.6	12.2	12.7	12.9	13.2	13.1	12.9	12.2	1.7
Defence	3.2	3.1	2.9	2.8	3.0	2.9	2.7	2.8	2.5	2.3	2.4	-0.9
Public order and safety	2.5	2.6	2.6	2.6	2.7	2.7	2.7	2.6	2.6	2.6	2.6	0.2
Economic affairs	7.7	7.9	8.5	8.6	8.7	8.7	8.8	8.3	8.5	8.4	8.4	0.5
Environmental protection	0.7	0.7	0.7	0.7	0.6	0.6	0.7	0.6	0.6	0.6	0.6	-0.1
Housing and community amenities	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.4	0.0
Health	12.5	12.9	13.2	13.4	13.3	13.6	13.5	13.4	13.7	13.9	13.9	1.5
Recreation, culture and religion	2.0	2.0	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	0.3
Education	12.8	12.8	12.9	12.9	12.8	12.8	12.7	12.6	12.9	13.1	13.4	0.3
Social protection	41.8	41.0	40.2	41.3	40.8	39.9	40.4	40.9	40.8	41.2	41.7	-1.1
Total expenditure	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	
Excluding interest	96.6	96.4	96.6	97.5	97.7	97.5	97.9	98.2	98.4	98.8	98.8	2.4

Sources: Statistics Sweden and own calculations.

6.2 Revenue

In 2018, the tax ratio, i.e. total tax revenue as a percentage of GDP, is estimated at 43.3 per cent (see table 6.3). The tax ratio is generally affected mainly by regulatory changes in the tax system, since the composition of the tax bases normally co-varies with the business cycle. Between 2010 and 2021, the tax ratio is expected to fall by 0.3 percentage points, but the variations during this period are larger. Between 2010 and 2011 the tax ratio decreased by 0.7 percentage points. After 2011 the tax ratio rose for a few years to reach 44.0 per cent of GDP in 2016. Thereafter the tax ratio is expected to decrease to 42.9 per cent at the end of the forecast period.

Revenue from tax on work is judged to vary a relatively great deal as a proportion of GDP in the period 2010–2021; a large part of this variation is explained by regulatory changes. The earned income tax credit and the tax reduction for pensioners held tax revenue back at the start of the period. Then revenue from tax on work rose as a proportion of GDP in 2016 on account of the abolition of reduced social security contributions for young people along with changes in the tax deduction for household improvements and services and reductions of the earned income tax credit. In the forecast years as of 2018 revenue from tax on work is expected to decrease slightly as a proportion of GDP; this is explained both by various changes in regulations, such as lower tax for people over 65, and by the payroll growing more slowly than GDP.

Revenue from tax on capital in 2021 is expected to remain at around the same level as a proportion of GDP as in 2010, but the variations over the period are greater. In 2015–2017, the proportion was unusually high, and this can be explained by temporarily higher revenue from both tax on corporate profits and tax on household capital. After 2017, the ratio for tax on capital is expected to remain stable at between 5.3 and 5.5 per cent of GDP.

Revenue from taxes on consumption is estimated to decrease by 0.8 percentage points as a proportion of GDP between 2010 and 2021. Revenue from value added tax is expected to remain largely unchanged throughout the period, although this revenue was slightly higher in 2017. In contrast, revenue from excise duties decreases continuously as a proportion of GDP. There are several reasons for this. For example, the use of some products subject to excise duties decreases over time, a third of the excise duties are not adjusted to inflation and the use of various kinds of energy in transport, heating and production is becoming more and more efficient. This results in the tax base decreasing gradually over the period.

Revenue from arrears of taxes and other taxes rose as a proportion of GDP by 0.2 percentage points between 2015 and 2016. This is explained both by a respite granted and the introduction of the resolution fee.

Table 6.3 Tax revenue, by tax types, per cent of GDP

Per cent of GDP

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Change 2010–2021
Tax on labour	25.0	25.0	25.6	25.8	25.2	25.0	25.8	25.9	25.7	25.5	25.4	25.3	0.3
Direct taxes	13.5	13.3	13.7	13.9	13.5	13.3	13.8	13.8	13.6	13.4	13.3	13.3	-0.2
Indirect taxes	11.5	11.6	11.9	11.9	11.8	11.7	12.0	12.1	12.1	12.1	12.0	12.0	0.5
Tax on capital	5.4	5.0	4.6	4.6	5.1	5.8	5.6	5.5	5.3	5.3	5.4	5.5	0.0
Households	1.0	0.8	0.8	0.9	1.2	1.6	1.7	1.6	1.4	1.3	1.3	1.3	0.3
Corporate incomce	3.0	2.8	2.4	2.4	2.5	2.8	2.6	2.7	2.7	2.7	2.8	2.8	-0.2
Tax on consumption	12.8	12.4	12.3	12.2	12.1	12.1	12.2	12.2	12.1	12.0	11.9	11.9	-0.8
VAT	9.2	9.1	9.0	9.0	9.0	9.1	9.2	9.3	9.2	9.2	9.2	9.2	0.0
Excise duties	3.6	3.4	3.3	3.2	3.1	3.0	3.0	2.9	2.8	2.8	2.8	2.7	-0.8
Arrears and other taxes	0.0	0.1	0.1	0.3	0.2	0.2	0.4	0.3	0.3	0.3	0.2	0.2	0.2
Total tax revenue	**43.2**	**42.5**	**42.6**	**42.9**	**42.6**	**43.1**	**44.0**	**43.9**	**43.3**	**43.0**	**43.0**	**42.9**	**-0.3**

Sources: Statistics Sweden and own calculations.

Table 6.4 Tax revenue, by tax types, per cent of total tax revenue

Per cent of total revenue

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Change 2010–2021
Tax on labour	57.8	58.7	60.3	60.1	59.3	58.0	58.7	59.1	59.3	59.3	59.1	58.9	1.1
Direct taxes	31.2	31.4	32.2	32.3	31.6	30.9	31.3	31.4	31.4	31.2	31.0	30.9	-0.3
Indirect taxes	26.6	27.4	28.1	27.8	27.6	27.2	27.4	27.6	27.9	28.0	28.0	28.0	1.4
Tax on capital	12.6	11.8	10.7	10.7	11.9	13.5	12.7	12.6	12.2	12.2	12.6	12.7	0.2
Households	2.3	1.9	1.8	2.0	2.9	3.8	3.8	3.7	3.2	3.1	3.1	2.9	0.6
Corporate incomce	7.0	6.6	5.7	5.5	5.8	6.6	5.9	6.1	6.2	6.3	6.5	6.6	-0.4
Tax on consumption	29.5	29.3	28.9	28.5	28.4	28.1	27.8	27.7	27.8	27.8	27.8	27.8	-1.7
VAT	21.3	21.4	21.1	21.0	21.2	21.0	21.0	21.1	21.3	21.3	21.3	21.4	0.1
Excise duties	8.2	7.9	7.8	7.5	7.2	7.0	6.8	6.6	6.6	6.5	6.4	6.4	-1.9
Arrears and other taxes	0.1	0.2	0.2	0.7	0.4	0.4	0.8	0.6	0.7	0.7	0.5	0.5	0.5
Total tax revenue	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	

Sources: Statistics Sweden and own calculations.

Appendix A – Technical assumptions

The methods used in calculations concerning the general government finances in the period of 2022–2100 are described in more detail below. The results reported in this appendix refer to the scenario that assumes no change in behaviour.

Demographic assumptions

The calculation is based on Statistics Sweden's population forecast from April 2017, 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	1.95	1.91	1.91	1.91	1.91
Average life expectancy, women	83.5	84.6	85.8	87	88.1	89.1
Average life expectancy, men	79.5	81.4	83	84.3	85.6	86.7
Net migration, thousands	50	109	39.5	26.5	21.5	20.8

Source: Statistics Sweden.

Labour market

The development of the labour market depends on demographic developments. Projections of the employment rate and the number of hours worked are calculated disaggregated by age, gender and country of origin. The labour force participation rate, employment rate and average working hours are assumed to remain constant in each group in the long term. This can be interpreted as unchanged labour market behaviour because the absenteeism rate, rate of sickness and activity compensation, average hours worked, employment rate and unemployment rate are constant within each sub-group.

The number of hours worked in the general government sector is assumed to rise at the same rate as demographically dependent general government consumption. This implies an assumption that the staffing ratio is constant in the general government sector. The number of hours worked in the business sector represents the difference between total hours worked and hours worked in the general government sector.

Productivity

The assumption about productivity growth in the business sector is based on an analysis of the historical development. The underlying trend in productivity growth is assumed to be 2.2 per cent as of 2022. In an international comparison, productivity growth in Sweden has been strong over the last two decades, with the exception of the period of 2007–2009. It is reasonable to assume that it will adjust in the long term to international growth rates. The weak growth in 2007–2009 has not affected the view taken of the long-term trend in productivity.

Productivity growth in the general government sector is assumed to be zero from 2022.

GDP, expenditure and output approach
GDP growth is the sum of the productivity growth in the economy as a whole and the increase in the number of hours worked. The use side of GDP is determined so that the development of household consumption expenditure is generated by a macroeconomic model called MIMER[4]. Household consumption expenditure as a proportion of GDP increases gradually over the period as people live longer and an increasing share of the population therefore does not work. In all, household consumption increases slightly to 2060. Gross fixed capital formation totals around 22–24 per cent of nominal GDP. General government consumption in terms of volume is projected in line with demographic changes, while price growth in general government consumption is determined by assumptions about hourly pay growth and CPI. The remaining component of the expenditure approach of GDP is net exports, which are calculated in the estimates as the difference between GDP and domestic use. The production of general government consumption is obtained with an assumption of unchanged productivity and degree of privatisation. Production in the business sector is determined as the product of productivity and the number of hours worked in that sector.

Inflation and pay
It is assumed that the Riksbank will pursue a monetary policy that holds inflation at 2 per cent. The proportion of pay costs and gross profits in the business sector is assumed to be constant in the long term. This means that pay is determined by the price level and productivity. Higher productivity and a higher value added price in the business sector generate scope for higher pay. Pay in the general government sector is assumed to rise in line with private sector pay.

Assumptions regarding yields on capital
It is assumed that average interest rates on saving and borrowing are the same for all sectors in the economy in the long term. The assumed nominal interest rate is the nominal GDP growth rate plus 0.5 percentage points. In addition to interest-bearing assets, the general government sector also has non-interest-bearing assets. The yield on these assets consists of share dividends and value adjustments. Dividends are assumed to be 3 per cent in the long term and value increases are then calculated so that the total return is the same as for interest-bearing assets. It is likely that there will also be differences in the long-term between the interest rates on borrowing and lending and that there will be differences between sectors.

[4] MIMER (Modell för Intergenerationella MakroEkonomiska Räkenskaper) is a macroeconomic simulation model of the Swedish economy. See the memorandum T*eknisk beskrivning av modellen MIMER* [*Technical description of the MIMER model]* on the Government website for a more detailed account if the model

It is also likely that the return on non-interest-bearing assets is higher than for interest-bearing assets. 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, 15–74 years	1.0	0.7	0.5	0.6	0.3	0.2	0.3
Labour force, 15–74 years	0.8	0.8	0.4	0.4	0.4	0.3	0.2
Number employed, 15–74 years	0.6	1.4	0.5	0.3	0.4	0.3	0.2
Hours worked	2.6	1.5	1.0	0.4	0.4	0.3	0.2
Business sector productivity	4.7	4.1	1.8	2.2	2.2	2.2	2.2
GDP, fixed prices	6.0	4.5	2.1	2.1	2.2	2.1	2.2
GDP per capita	5.1	3.4	1.1	1.4	1.8	1.7	1.8
GDP productivity	3.3	3.0	1.1	1.7	1.9	1.8	1.9
GDP deflator	1.0	2.1	1.8	2.3	2.2	2.2	2.2
CPI, annual average	1.2	0.0	2.8	2.0	2.0	2.0	2.0
Hourly wages	0.4	2.5	2.8	4.2	4.2	4.2	4.2
Per cent							
Real interest	1.6	1.3	-1.3	2.6	3.0	3.0	2.7
Employment rate, 15–74 years	64.4	66.6	68.4	67.3	66.4	67.6	66.6
ILO unemployment rate, 15–74 years	8.6	7.4	6.1	7.0	7.2	6.9	6.5

Sources: Statistics Sweden and own calculations.

General government income

The calculations of general government income presented 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. Table A.3 details general government taxes and charges as a proportion of GDP and as a proportion of the respective tax base (implicit tax rate), as well as the tax base's proportion of GDP.

Table A.3 Taxes and charges

Per cent of GDP

	2010	2015	2020	2030	2040	2050	2060
Taxes and charges	43.1	42.9	42.8	42.9	43.0	43.0	43.2
Household direct taxes and charges							
Proportion of GDP	12.5	12.8	12.6	12.6	12.7	12.7	12.9
Implicit tax rate of direct taxes	23.7	24.1	24.3	24.3	24.2	24.3	24.2
Tax base for direct taxes as a proportion of GDP	52.8	53.3	51.7	52.1	52.4	52.4	53.3
Implicit tax rate of charges	6.6	6.8	6.7	6.7	6.7	6.7	6.7
Tax base for charges as a proportion of GDP	38.8	39.5	39.2	39.7	40.1	40.5	40.9
Corporate direct taxes							
Proportion of GDP	3.0	2.6	3.1	3.1	3.1	3.1	3.1
Implicit tax rate	9.7	8.8	10.5	10.7	10.7	10.7	10.7
Tax base as a proportion of GDP	30.9	29.9	29.7	29.4	29.3	29.4	29.2
Indirect taxes[1]							
Proportion of GDP	13.4	12.9	12.6	12.4	12.3	12.1	12.1
Implicit tax rate	28.9	28.6	28.5	27.9	27.3	26.8	26.5
Tax base as a proportion of GDP	46.4	45.0	44.1	44.5	44.8	45.0	45.5
Social security contributions from employers and the self-employed[2]							
Proportion of GDP	14.0	14.3	14.6	14.7	14.9	15.0	15.2
Implicit tax rate	36.1	36.1	37.1	37.1	37.1	37.1	37.1
Tax base as a proportion of GDP	38.8	39.5	39.2	39.7	40.1	40.5	40.9

[1] Excluding wage-dependent indirect taxes.
[2] Including wage-dependent indirect taxes.
Sources: Statistics Sweden and own calculations.

General government expenditure on consumption

The projection of general government consumption is made in two parts: a volume projection and a price projection. The calculation of general government consumption is based on costs for various purposes such as schools, health care and social care, disaggregated by age and gender. All expenditure areas are projected in line with the demographic trend. This means, for example, that a 70-year-old woman is allocated the same amount of public services, in real terms, in 2060 as in 2021. This can be viewed as an expression of unchanged standards in general government services. The price of general government consumption develops in line with a weighting of the price of the component parts of gross production, i.e. hourly pay, the price of intermediate consumption and the price of consumption of fixed capital (the price of gross fixed capital formation).

Table A.4 General government consumption

Per cent of GDP

	2010	2015	2020	2030	2040	2050	2060
Total consumption	25.2	25.9	25.5	26.0	25.8	25.2	25.5
Childcare	1.6	1.7	1.7	1.7	1.6	1.6	1.6
Education	4.9	4.8	4.7	4.8	4.6	4.2	4.2
Healthcare	5.8	6.0	6.0	6.1	6.0	5.9	6.0
Social care	3.9	4.0	4.0	4.5	4.8	4.9	5.3
Other activities	9.0	9.3	9.0	9.0	8.8	8.5	8.5

Sources: Statistics Sweden and own calculations.

Transfer payments

The calculations assume a certain guarantee of standards in the general government transfer payment systems. For some transfer payments, there are regulations that automatically raise expenditure in line with pay. This applies to pensions that are adjusted upward in line with the income index and also partly to transfer payments compensating for income loss, such as health and parental insurance In the calculations, pensions are projected in accordance with the current rules. Other transfer payments to households are assumed to rise in line with pay This also means there is an assumption that the "ceilings" applied in the social insurance systems rise in line with pay. Such a guarantee of standards offsets the erosion of household transfer payments that would take place if the estimate was 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	**18.7**	**17.8**	**16.5**	**16.5**	**16.5**	**16.3**	**16.7**
Transfer payments to households	15.3	14.4	12.9	12.9	12.9	12.7	13.1
Old age	8.0	7.8	7.4	7.3	7.3	6.9	7.4
Ill-health	2.9	2.7	2.0	2.1	2.1	2.2	2.1
Children/studies	2.1	2.0	1.9	2.0	2.0	2.0	2.0
Labour market	1.0	0.8	0.5	0.5	0.6	0.5	0.5
Other	1.4	1.2	1.0	1.0	1.0	1.1	1.1
Transfer payments to businesses and the rest of the world	3.3	3.5	3.7	3.6	3.6	3.6	3.6

Note: Old age = old-age pensions, survivor's pensions, central government and local government pensions and supplementary housing benefit to pensioners. Ill-health = health insurance, occupational injury insurance sickness compensation and assistance compensation. Children/studies = child benefit, parental insurance, maintenance support and student grants. Labour market = unemployment benefit, labour market training grants and wage guarantees.
Sources: Statistics Sweden and own calculations.

Old-age pensions system

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

Table A.6 Old-age pensions system

Per cent of GDP

	2010	2015	2020	2030	2040	2050	2060
Revenue	**6.6**	**6.6**	**6.4**	**6.9**	**7.0**	**7.3**	**7.5**
Fees	5.9	5.9	5.7	5.8	5.9	5.9	6.0
Interest, dividends etc.	0.7	0.7	0.7	1.1	1.2	1.4	1.5
Expenditure	**6.4**	**6.4**	**6.3**	**6.0**	**5.8**	**5.4**	**5.7**
Pensions	6.2	6.2	6.1	5.8	5.6	5.3	5.5
Other	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Net lending	**0.2**	**0.2**	**0.1**	**0.8**	**1.2**	**1.9**	**1.8**
Net financial assets	**25.5**	**29.7**	**30.0**	**30.8**	**31.8**	**37.6**	**44.5**

Sources: Statistics Sweden and own calculations.

Table A.7 presents a number of key variables from the Swedish Convergence Programme in the format recommended by the European Commission.

Table A.7 Long-term sustainability of the general government finances

Per cent of GDP, unless otherwise stated

	2010	2015	2020	2030	2040	2050	2060
Total expenditure	49.3	48.5	47.1	48.4	48.0	46.7	47.1
Age-related[1]	34.2	34.4	33.3	33.8	33.6	32.7	33.4
Pensions[2]	8.0	7.8	7.4	7.3	7.3	6.9	7.4
Guarantee pensions	0.5	0.4	0.2	0.4	0.6	0.7	0.9
Old-age pensions	6.2	6.2	6.1	5.8	5.6	5.3	5.5
Other pensions (disability and survivors')	0.7	0.5	0.4	0.4	0.3	0.3	0.3
General government occupational pensions	0.6	0.6	0.6	0.7	0.7	0.7	0.7
Healthcare	5.8	6.0	6.0	6.1	6.0	5.9	6.0
Elderly care and care services for disabled	3.9	4.0	4.0	4.5	4.8	4.9	5.3
Childcare	1.6	1.7	1.7	1.7	1.6	1.6	1.6
Education	4.9	4.8	4.7	4.8	4.6	4.2	4.2
Unemployment benefit	1.0	0.8	0.5	0.5	0.6	0.5	0.5
Other age-related expenditure	9.0	9.3	9.0	9.0	8.8	8.5	8.5
Interest expenditure	1.0	0.4	0.4	0.9	1.0	0.9	0.9
Total revenue	49.3	48.7	48.4	49.3	49.1	48.7	48.8
of which income from capital	1.8	1.5	1.5	2.4	2.5	2.7	2.7
of which is from the pensions system	0.7	0.7	0.7	1.1	1.2	1.4	1.5
Assumptions							
Labour productivity growth, GDP level	3.3	3.0	1.1	1.7	1.9	1.8	1.9
GDP growth	6.0	4.5	2.1	2.1	2.2	2.1	2.2
Unemployment rate	8.6	7.4	6.1	7.0	7.2	6.9	6.5
Population aged 65 + as a proportion of the total population	18.3	19.7	20.1	21.2	22.7	23.2	24.9

[1] Age-related expenditure includes childcare. This expenditure is not included in the age-dependent expenditure presented in Appendix B as calculated by an EU working group.
[2] In addition to old-age pensions, 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 (Working Group on Ageing Populations and Sustainability, AWG) under the Economic Policy Committee (EPC) has, together with the European Commission, calculated the development of demographically dependent expenditure up to and including 2060. These estimates were last reported in April 2015[5]. However, the calculations in this Convergence Programme are based on the data presented to the Riksdag in the 2018 Spring Fiscal Policy Bill. This section compares the key demographic and macroeconomic indicators and also the demographically dependent expenditure from these two sources. The comparison is made for the period from 2013, 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

	2013	2020	2030	2040	2050	2060
Population, 15–74 years						
EPC	100.0	102.5	108.9	115.7	122.1	124.8
Convergence programme	100.0	105.1	111.7	117.2	120.0	123.7
Employed						
EPC, 15–74 years	100.0	105.7	112.5	119.9	126.8	129.5
Convergence programme, 15–74 years	100.0	109.5	114.4	118.4	123.3	125.4
Hours						
EPC	1.2	0.6	0.6	0.7	0.4	0.3
Convergence programme	0.4	1.0	0.4	0.4	0.3	0.2
Unemployment rate, percentage points						
EPC, 15–74 years	8.1	6.2	5.8	5.8	5.8	5.8
Convergence programme, 15–74 years	8.0	6.1	7.0	7.2	6.9	6.5
Labour productivity						
EPC	0.9	1.3	1.5	1.5	1.5	1.5
Convergence programme	0.9	1.1	1.7	1.9	1.8	1.9
Potential GDP						
EPC	2.2	1.9	2.1	2.2	1.9	1.8
Convergence programme	1.2	2.1	2.1	2.2	2.1	2.2
Potential GDP per capita						
EPC	1.3	1.0	1.4	1.6	1.4	1.4
Convergence programme	0.4	1.1	1.4	1.8	1.7	1.8

Sources: European Commission and own calculations.

[5] The 2015 Ageing report: Economic and budgetary projections for the EU 28 Member States (2013–2060). An updated report will be published in May 2018.

The population forecast used in the EPC was prepared by Eurostat in 2015. Calculations in this Convergence Programme are based on a population forecast issued by Statistics Sweden in April 2017. That assessment takes account of actual developments in recent years, which means that the population increases more quickly than in the EPC calculation in the next few years. In the longer term, however, the population grows more slowly according to this Convergence Report. The EPC thus also has a stronger increase both in hours worked and in the number of persons employed in the longer term. Productivity growth is stronger in this Convergence Programme than in the EPC calculations. This faster productivity growth means that both GDP and per capita GDP are higher in 2060 in this Convergence Programme than in the EPC calculations.

Table B.2 Change in age-dependent general government expenditure in the EPC calculations and in the Swedish convergence programme

Proportion of GDP

	Change 2013–2020			Change 2013–2060		
	CP	EPC	CP-EPC	CP	EPC	CP-EPC
Pensions	-1.0	-0.7	-0.3	-1.0	-1.4	0.4
Healthcare	-0.1	0.2	-0.3	-0.1	0.4	-0.5
Elderly care and care services for disabled	-0.1	0.3	-0.4	1.2	1.5	-0.3
Education	-0.2	0.0	-0.2	-0.7	0.2	-0.9
Unemployment benefit	-0.4	-0.1	-0.3	-0.4	-0.1	-0.3
Total	**-1.8**	**-0.4**	**-1.4**	**-1.0**	**0.6**	**-1.6**

Note: CP is the abbreviation of convergence programme. Childcare is not included in this synthesis.
Sources: European Commission and own calculations.

Appendix C – Tables

Table C.1a Macroeconomic prospects

Annual percentage change

	Mdkr 2017	2017	2018	2019	2020	2021
Real GDP	4 511	2.4	2.8	2.2	2.1	1.8
Nominal GDP	4 604	4.5	4.9	4.2	4.0	3.8
Components of real GDP						
Private consumption expenditure	1 996	2.4	2.5	2.6	2.6	2.8
Government consumption expenditure	1 156	0.4	1.9	0.8	1.0	-0.3
Gross fixed capital formation	1 124	6.0	4.3	2.0	2.1	2.0
Changes in inventories and net acquisition of valuables[1]	37	0.1	-0.1	0.0	0.0	0.0
Exports of goods and services	2 022	3.7	4.9	3.7	3.6	3.4
Imports of goods and services	1 824	5.0	4.8	3.3	3.6	3.4
Contributions to real GDP growth						
Final domestic demand		2.6	2.6	1.8	1.9	1.7
Changes in inventories and net acquisition of valuables		0.1	-0.1	0.0	0.0	0.0
External balance of goods and services		-0.3	0.3	0.3	0.2	0.2

[1] Contribution to real GDP growth.
Sources: Statistics Sweden and own calculations.

Table C.1b Price developments

Annual percentage change

	Level 2017	2017	2018	2019	2020	2021
GDP deflator	102.1	2.1	2.0	2.0	1.8	1.9
Private consumption deflator	101.7	1.7	1.7	1.8	1.9	2.0
HICP[1]	103.0	1.9	1.6	1.5	1.8	1.9
Public consumption deflator	103.6	3.6	2.3	2.4	2.3	2.6
Investment deflator	102.2	2.2	1.8	1.8	1.6	1.6
Export price deflator (goods and services)	103.2	3.2	-0.6	0.1	0.1	0.1
Import price deflator (goods and services)	103.8	3.8	-1.3	-0.1	0.2	0.2

Note: All deflators are indices. 2014=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 2017	2017	2018	2019	2020	2021
Employment, persons[1]	5 002	2.3	1.4	0.6	0.5	0.3
Employment, hours worked[2]	805 208	1.2	1.4	0.8	1.0	0.4
Unemployment rate (%)[3]	359	6.7	6.2	6.2	6.1	6.1
Labour productivity, persons[4]	798	0.1	1.4	1.6	1.6	1.4
Labour productivity, hours worked[5]	555	1.5	1.2	1.5	1.8	1.7
Compensation of employees[6]	2 162	4.7	5.1	4.0	3.8	3.5
Compensation per employee[7]	432 202	2.3	3.6	3.3	3.3	3.2

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

	2017	2018	2019	2020	2021
Net lending/borrowing vis-á-vis the rest of the world	3.0	3.4	3.7	3.7	3.6
of which					
Balance on goods and services	3.4	3.7	3.9	3.9	3.8
Balance of primary incomes and transfers	-0.2	-0.1	0.0	0.0	-0.1
Capital account	-0.1	-0.1	-0.1	-0.1	-0.1
Net lending/borrowing of the private sector	1.9	2.5	2.8	2.4	1.7
Net lending/borrowing of the general government	1.1	1.0	1.0	1.3	1.9
Statistical discrepancy	2.5	--	--	--	--

Sources: Statistics Sweden and own calculations.

Table C.2a General government budgetary prospects

Per cent of GDP

	SEK bn 2017	2017	2018	2019	2020	2021
Net lending by sub-sector						
General government	52	1.1	1.0	1.0	1.3	1.9
Central government	67	1.5	1.3	1.4	1.7	2.3
Local government	-15	-0.3	-0.4	-0.5	-0.5	-0.5
Social security funds	0	0.0	0.0	0.0	0.1	0.1
General government						
Total revenue	2 313	50.2	49.5	49.2	49.1	49.1
Total expenditure	2 261	49.1	48.6	48.2	47.9	47.2
Net lending/borrowing	52	1.1	1.0	1.0	1.3	1.9
Interest expenditure	16	0.4	0.3	0.4	0.4	0.4
Primary balance	68	1.5	1.3	1.3	1.7	2.4
One-off and other temporary measures	0	0.0	0.0	0.0	0.0	0.0
Selected components of revenue						
Total taxes	1 888	41.0	40.4	40.2	40.1	40.0
Taxes on production and imports	1 031	22.4	22.2	22.0	21.9	21.8
Current taxes on income. wealth. etc.	856	18.6	18.2	18.1	18.2	18.2
Capital taxes	0	0.0	0.0	0.0	0.0	0.0
Social contributions	153	3.3	3.3	3.3	3.3	3.3
Property income	68	1.5	1.5	1.5	1.6	1.7
Other	205	4.4	4.3	4.3	4.3	4.1
Total revenue	2 313	50.2	49.5	49.2	49.1	49.1
Tax burden	2 023	43.9	43.4	43.2	43.1	43.0
Selected components of expenditure						
Compensation of employees + intermediate consumption	940	20.4	20.3	20.1	20	19.6
Compensation of employees	580	12.6	12.7	12.6	12.6	12.4
Intermediate consumption	361	7.8	7.6	7.5	7.4	7.2
Social payments	764	16.6	16.1	15.8	15.5	15.3
of which Unemployment benefits	33	0.7	0.6	0.5	0.5	0.5
Social transfers in kind supplied via market producers	172	3.7	3.6	3.6	3.5	3.5
Social transfers other than in kind	592	12.9	12.5	12.2	12	11.8
Interest expenditure	16	0.4	0.3	0.4	0.4	0.4
Subsidies	72	1.6	1.6	1.6	1.6	1.6
Gross fixed capital formation	209	4.5	4.5	4.6	4.7	4.6
Capital transfers	9	0.2	0.2	0.2	0.2	0.2
Other	250	5.4	5.6	5.5	5.5	5.4
Total expenditure	2 261	49.1	48.6	48.2	47.9	47.2
Government consumption (nominal)	1 198	26	25.8	25.6	25.5	25.1

Sources: Statistics Sweden and own calculations.

Table C.2b Revenue and expenditure forecasts

Per cent of GDP if not otherwise stated

	SEK bn 2017	2017	2018	2019	2020	2021
Total revenue	2 313	50.2	49.5	49.2	49.1	49.1
Total expenditure	2 261	49.1	48.6	48.2	47.9	47.2

Sources: Statistics Sweden and own calculations.

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

Procent av BNP

	SEK bn 2017	2017	2018	2019	2020	2021
Expenditure on EU programmes fully matched by EU funds revenue	2	0	0	0	0	0
of which investment fully matched by EU funds revenue	0	0	0	0	0	0
Cyclical unemployment benefit expenditure	0	0	0	0	0	0
Effect of discretionary revenue measures	7	0.1	-0.1	-0.1	0	0
Revenue increases mandated by law	–	–	–	–	–	–

Source: Statistics Sweden and own calculations.

Table C.3 General government expenditure by function

Per cent of GDP

	COFOG code	2016
General public services	1	6.6
Defence	2	1.2
Public order and safety	3	1.3
Economic affairs	4	4.1
Environmental protection	5	0.3
Housing and community amenities	6	0.7
Health	7	6.9
Recreation, culture and religion	8	1.1
Education	9	6.6
Social protection	10	20.6
Total expenditure		49.4

Source: Statistics Sweden and own calculations.

Table C.4 General government debt developments

Per cent of GDP

	2017	2018	2019	2020	2021
Gross debt	40.3	37.3	34.2	31.6	29
Change in gross debt ratio	-1.8	-2.9	-3.2	-2.6	-2.6
Contribution to changes in gross debt					
Primary balance	-1.5	-1.3	-1.3	-1.7	-2.3
Interest expenditure	0.4	0.3	0.4	0.4	0.4
Stock-flow adjustment	1.1	-0.1	-0.7	0	0.5
of which					
Differences between cash and accruals	0	-0.2	0	0.1	0
Privatisation proceeds	0	-0.1	-0.1	-0.1	-0.1
Valuation effects and others	1.1	0.2	-0.6	0	0.6
Implicit interest rate on debt	0,9	0,9	1	1,2	1,4

Sources: Statistics Sweden and own calculations.

Table C.5 Cyclical developments

Per cent of GDP if not otherwise stated

	2017	2018	2019	2020	2021
Real GDP growth (%)	2.4	2.8	2.2	2.1	1.8
Net lending of general government	1.1	1.0	1.0	1.3	1.9
Interest expenditure	0.5	0.5	0.5	0.5	0.6
One-off and other temporary measures	0.0	0.0	0.0	0.0	0.0
Potential GDP growth (%)	2.1	2.2	2.3	2.3	2.2
Output gap	0.7	1.4	1.3	1.0	0.5
Cyclical budgetary component	0.4	0.4	0.5	0.4	0.2
Cyclically-adjusted balance	0.7	0.5	0.5	0.8	1.7
Cyclically-adjusted primary balance	1.3	1.0	1.0	1.4	2.3
Structural balance	0.7	0.5	0.5	0.8	1.7

Sources: Statistics Sweden and own calculations.

Table C.6 Divergence from previous update

	2017	2018	2019	2020	2021
Real GDP growth (%)					
Previous update	2.6	2.1	2.0	2.5	--
Current update	2.4	2.8	2.2	2.1	1.8
Difference	-0.2	0.7	0.2	-0.3	--
General government net lending (% of GDP)					
Previous update	0.3	0.6	1.4	2.1	--
Current update	1.1	1.0	1.0	1.3	1.9
Difference	0.9	0.4	-0.4	-0.9	--
General government gross debt (% of GDP)					
Previous update	39.5	37.3	34.7	31.4	--
Current update	40.3	37.3	34.2	31.6	29.0
Difference	0.7	0.0	-0.6	0.2	--

Sources: Statistics Sweden and own calculations.

Table C.7 Long-term sustainability of public finances

Per cent of GDP

	2010	2015	2020	2030	2040	2050	2060
Total expenditure	**49.3**	**48.5**	**47.1**	**48.4**	**48.0**	**46.7**	**47.1**
of which							
Age-related expenditure	34.2	34.4	33.3	33.8	33.6	32.7	33.4
of which							
Pension expenditure	8.0	7.8	7.4	7.3	7.3	6.9	7.4
of which							
Social security pension	0.5	0.4	0.2	0.4	0.6	0.7	0.9
Old-age and early pensions	6.2	6.2	6.1	5.8	5.6	5.3	5.5
Other pensions (disability- and survivors-)	0.7	0.5	0.4	0.4	0.3	0.3	0.3
Occupational pensions (if in general government)	0.6	0.6	0.6	0.7	0.7	0.7	0.7
Health care	5.8	6.0	6.0	6.1	6.0	5.9	6.0
Long-term care	3.9	4.0	4.0	4.5	4.8	4.9	5.3
Educational expenditure	4.9	4.8	4.7	4.8	4.6	4.2	4.2
Other age-related expenditures	9.0	9.3	9.0	9.0	8.8	8.5	8.5
Interest expenditure	1.0	0.4	0.4	0.9	1.0	0.9	0.9
Total revenue	**49.3**	**48.7**	**48.4**	**49.3**	**49.1**	**48.7**	**48.8**
of which							
Property income	1.8	1.5	1.5	2.4	2.5	2.7	2.7
of which							
From pensions contributions (or social contributions if appropriate)	0.7	0.7	0.7	1.1	1.2	1.4	1.5
Pension reserve fund assets	25.5	29.7	30.0	30.8	31.8	37.6	44.5
of which							
Consolidated public pension fund assets (assets other than government liabilities)	23.7	28.5	28.7	29.8	30.9	36.7	43.6
Assumptions							
Labour productivity	4.7	4.1	1.8	2.2	2.2	2.2	2.2
Real GDP growth	6.0	4.5	2.1	2.1	2.2	2.1	2.2
Unemployment rate	8.6	7.4	6.1	7.0	7.2	6.9	6.5
Population aged 65+ over total population	18.3	19.7	20.1	21.2	22.7	23.2	24.9

Sources: Statistics Sweden and own calculations.

Tabble C.7a Contingent liabilities

Per cent of GDP

	2017
Public guarantees	**44.4**

Sources: Statistics Sweden and own calculations.

Table C.8 Basic assumptions

Annual average if not otherwise stated

a	2017	2018	2019	2020	2021
Short-term interest rate (annual average)[1]	-0.7	-0.4	0.1	0.8	1.5
Long-term interest rate (annual average)[2]	0.7	1.2	1.9	2.5	2.7
USD/ € exchange rate (annual average)	1.1	1.2	1.2	1.3	1.3
Nominal effective exchange rate vis-á-vis the €[3]	9.6	9.8	9.7	9.7	9.6
World. GDP growth[4]	3.6	3.8	3.8	3.8	3.8
EU GDP growth[4]	2.5	2.2	2.0	1.9	1.8
Growth of relevant foreign markets[4]	4.5	4.9	4.6	4.3	4.2
World import volumes, excluding EU					
Oil prices (Brent USD/barrel. annual average)	54	65	61	58	57

[1] 6-months interest rate.
[2] 10-year government bond yield.
[3] SEK/€. annual average.
[4] Annual percentage change.
Sources: Statistics Sweden and own calculations