

# Sweden's convergence programme **2017**





Sweden's Convergence  
Programme  
2017



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# Introduction

In accordance with Council Regulation (EC) No 1466/97, Sweden submitted its Convergence Programme in December 1998.<sup>1</sup> The programme was evaluated and approved by the Council in spring 1999. The Council Regulation stipulates that an update of the Convergence Programme is to be submitted annually; accordingly, this took place from 1999 to 2009.

Effective from 2010, reporting within the Stability and Growth Pact has been adapted to the European Semester; the aim is to strengthen the surveillance of economic policies. Consequently, the Convergence Programme and the national action programme are delivered each spring. This allows budgetary and structural policy to be assessed consistently and recommendations to be made to the Member States while their budget proposals are still in the preparatory phase.

Sweden's Convergence Programme for 2017 is based on the Spring Fiscal Policy Bill for 2017 (Bill 2017/16:100), which the Government delivered to the Riksdag on 18 April 2017. The Parliamentary Committee on Finance was informed about the Convergence Programme on 25 April 2017. The Government approved the Convergence Programme on 27 April 2017.

The Parliamentary Committee on European Union Affairs were informed of the European Commission's proposals for country-specific recommendations in June 2016.

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<sup>1</sup> 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.



# 1 Economic policy framework and targets

## 1.1 Budgetary policy goals

The budgetary policy goals encompass a general government net lending target, an expenditure ceiling and a local government balanced budget requirement.

### General government net lending target

The purpose of having a governing target for general government net lending is that it strengthens control over the long-term development of general government finances. The net lending target also delineates the need to set priorities among expenditure areas, or for higher taxes. In addition, the fiscal policy should facilitate economic stimulus in contractionary periods and help rein in the economy in expansionary periods. Accordingly, higher net lending when the economy is good must provide space for weaker net lending when the economy is worse. This is made possible by formulating the net lending target as an average over an economic cycle (see also section 3.4).

As proposed in the Spring Fiscal Policy Bill for 1997, a decision was taken 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. Following a proposal in the Spring Fiscal Policy Bill for 2007, the Riksdag decided 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 posted to the general government sector in the National Accounts, which reduced general government net lending by around 1 per cent of GDP.

A parliamentary committee was tasked in 2015 to review the target for general government net lending (Dir. 2015:63). The committee submitted its final report in October 2016. In the final report, the committee sets out its views on lessons learnt from the fiscal policy framework thus far, its assessment of what the level of the general government net lending target should be going forward and the impact of the target level on the general government finances and the Swedish economy. In response to the committee's proposal, the Government finds that the surplus target level should be changed to 0.33 per cent of GDP over an economic cycle and that the budgetary policy framework should be augmented with a debt anchor for consolidated gross general government debt. The changes to the budgetary policy framework should be applied as of the commencement of the budget process for 2019. In the Budget Bill for 2018, the Government intends to present a

proposal to the Riksdag to change the level of the surplus target and to introduce a debt anchor and a level for the same.

### **Expenditure ceiling and a strict budgetary process**

The expenditure ceiling covers central government primary expenditure; that is, excluding interest expenditure and old age pension system expenditures. According to the Swedish Budget Act, the Government is obliged to propose an expenditure ceiling for the third additional year in the Budget Bill. The expenditure ceiling is then set by the Riksdag. 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 levy 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 revenue are used for permanent increases in expenditure.

The expenditure ceiling is the overarching restriction for the budgetary process in terms of total expenditure. The fundamental principle is that expenditure ceiling levels decided by the Riksdag are not changed for any reason other than technical adjustments. According to the Budget Act, the Government is further obliged to take measures if there is risk that an established expenditure ceiling will be exceeded. According to standard practice, there should be a budgeting margin of a certain size under the expenditure ceiling. This is mainly intended to act as a buffer should expenditure develop in a way other than estimated - when the level of the expenditure ceiling was set.

A well-organised, strict budgetary process has central significance to achieving the budgetary policy goals. The budgetary process compares different expenses to one another and expenditure increases are tested based on a predetermined total fiscal space demarcated by the expenditure ceiling and the net lending target. The main principle is that the cost of proposed expenditure increases in one expenditure area must be covered by proposed expenditure reductions in the same area. It is also vital that the central government budget is transparent and comprehensive. The Government's proposed budget must include all revenue 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 on income headings and appropriations (the "gross principle"). This means that expenses will be reported on the expenditure side of the budget, while revenues will be reported on the revenue side. The main principle is that expenses must be accounted for in the year in which they are intended to be used.

## **Local government balanced budget requirement**

To reinforce the budgetary process at the local and regional levels, a statutory requirement for balanced budgets in the local government sector has been in force since the year 2000. This stipulates that each individual municipality and county council must budget for a balanced outcome. Deficits must be corrected within three years, but the municipality or county council is permitted, if special circumstances exist, to decide not to correct the deficit. Municipalities and county councils also need to maintain sound financial management of their operations.<sup>2</sup>

## **1.2 Sweden's medium-term budgetary objective**

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

## **1.3 Monetary policy objective**

The Riksbank is responsible for monetary policy in Sweden. In accordance with the Sveriges Riksbank Act (1988:1385), the objective of monetary policy is to maintain a fixed monetary value. Amendments to the Sveriges Riksbank Act adopted in 1999 gave the Riksbank greater autonomy. The constitution states that no other governmental agency may determine how the Riksbank makes decisions on monetary policy issues. The independence of the decision-making Executive Board is also underlined by the Sveriges Riksbank Act, which states that the members of the Board must not seek or receive instructions when performing their monetary policy tasks.

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

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<sup>2</sup> According to the sound financial management requirement set forth in the Local Government Act (1991:900), municipalities and county councils must, among else, set their own financial targets and be accountable for sustainable budgets over the long term. A commonly used measure is that net income should correspond to 2 per cent of revenue from taxation and general central government grants.

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

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

When each monetary policy decision is made, the Executive Board makes an assessment of which course the repo rate needs to take for the monetary policy to be well balanced. This normally entails finding a suitable equilibrium between stabilising inflation near the inflation target and stabilising the real economy.

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

In September 2003, Sweden held a referendum on the introduction of the euro. The result of the referendum, which was “no”, did not lead to any changes in monetary policy or exchange rate policy. The Government is responsible for overall exchange rate policy matters and decides on the exchange rate system, while the Riksbank is responsible for the application of the exchange rate system. The current monetary and exchange rate policy regime stands firm. Sweden's experience of an inflation target and a floating exchange rate is very favourable. Pegging the Swedish krona to ERM2 is not under consideration.

## **1.4 The Government's economic policy**

### **Adopted measures**

The Government has implemented several important reforms over a period of two years. Many of these investments are already starting to show results: jobs are increasing, new business is growing, unemployment is being pushed down, the schools are hiring thousands of new staff and Sweden is leading the climate transition. The Government has also reached non-partisan agreements on the defence

policy, migration policy, energy policy, climate policy and the fiscal policy framework, as well as in several other areas. The reforms implemented in the Budget Bill for 2017 are outlined below (see table 1.1).

### **More resources for welfare**

Strengthening welfare is particularly important as the Swedish population grows. Many municipal and county council operations are strained. In response, the Government implemented an historic investment in welfare by permanently increasing general government grants to the local government sector by SEK 10 billion per year. This is the largest-ever individual increase in central government grants to local governments. The additional funding is making it possible to develop welfare services, not least importantly by hiring additional staff.

School performance has been declining for almost two decades and Swedish schools have become increasingly unequal in the last ten years. The schools are the foundation upon which the equal society is built and are a prerequisite for our future prosperity. Aimed at making the teaching profession more attractive, the Government has taken measures including improving working conditions for teachers and introducing a stimulus for higher pay. Significant additional funding has been allocated to early intervention so that all pupils can be given the support they need.

In addition to the additional billions allocated to welfare, the Government's proposals included continued investments to mitigate the teacher shortage, promote reading and improve conditions for schools confronting severe challenges. As the number of pupils increases, schools are allocated additional resources.

Improvements are also required in healthcare. The Government has implemented several important initiatives in areas including cancer care, and has introduced free healthcare for the most elderly citizens (85+). Ill health and sickness absence from work must be combated, not least importantly within our welfare professions. The Government is implementing a wide-ranging action programme and is working with the social partners to advance progress. The increase in the sickness absence rate (number of gross days per year of sickness benefit per registered insured person aged 16–64) that began in 2010 is now moderating.

### **More jobs**

The economic policy is guided by the Government's objective of having the lowest unemployment in the EU. A new knowledge boost has begun, aimed at strengthening people's job opportunities and improving matching in the labour market. The active labour market policy has been reinforced and special measures to help recent arrivals secure jobs have been rapidly expanded. A 90-day guarantee for young people has been expanded and youth unemployment is now the lowest it has been in 13 years. More will have to be done, however, especially so that people who are now building their lives in Sweden will be in employment faster.

The Government proposed an expansion of the knowledge boost, continued steps in the recasting of the labour market policy, improved establishment initiatives for recent arrivals and modern relief works jobs in the central government sector.

Since the Government took office, investments in housing and infrastructure have been increased to stimulate the economy and improve people's opportunities to find a home, be able to move and commute to where the jobs are found. After a long period of low building rates, housing construction is increasing sharply and the high rate is expected to persist. There are, however, still substantial housing shortages in many parts of Sweden. The Government is implementing urgently needed reforms and presented a housing policy action programme in June 2016.

An efficient transport and travel infrastructure contributes to employment, reduced emissions and higher competitiveness throughout the country. The Government has strengthened rail maintenance and taken important steps to promote sustainable transport of goods.

Sweden is a strong global competitor, but an active business and innovation policy is needed to build further on our strengths. The National Innovation Council has initiated five strategic innovation partnership programmes. The state venture capital supply is being developed. The forthcoming bill on research, innovation and higher education will provide long-term conditions for Sweden as a country of knowledge.

#### **One of the world's first fossil-fuel free countries**

The climate is the defining issue of our time and Sweden intends to demonstrate global leadership by becoming one of the first fossil-fuel free countries in the world. The Government has taken several measures to reduce emissions and speed up the transition to a sustainable society. Further steps were taken towards attaining the target to reduce Sweden's emissions by 40 per cent by 2020 compared with 1990. The Government proposed an expansion of the support introduced for climate investments and City Environment Agreements. The Government also raised the climate protection ambition with an "emissions brake" that cancels emission allowances, and is advocating a stricter EU policy. The proposed reinforcement of the Climate Leap will strengthen opportunities for local and regional climate investments and EV charge points in all of Sweden.

Aimed at reducing the negative impact of consumption on the climate and environment, the Government presented a strategy for sustainable consumption. The Government also reinforced environmental efforts in Sweden in order to attain the environmental quality targets and the generation target. A major initiative to protect areas of great natural value has begun and more marine environments have been given protected status. In the Budget Bill for 2017, the Government also proposed investments in the effort towards a non-toxic environment and

a circular economy. The modernisation of Sweden must continue in order to meet the climate and environmental challenges. The Government is implementing the UN 2030 Agenda, which ties responsibility for the climate and the environment to social and economic development.

#### **Gender equality in society**

Sweden remains characterised by large differences in living conditions between women and men. The Government intends to examine the significance of the development of the tax system from a gender equality perspective. The work will be completed by 2018 at the latest. The Government's objectives are for the employment rate for women to be equal to that of men and for pay differences between women and men to be eliminated. Sweden has a feminist Government that applies a gender equality perspective to the budget policy. This means that society's resources must benefit the entire population. The Government intends to establish a gender equality agency in 2018.

The increased resources to the local government sector that the Government has proposed will foster better conditions for women's employment and work environment. The Government also allocated funds in the Budget Bill for a strategic initiative to reduce men's violence against women.

#### **A safe and secure society**

Many people in deprived areas feel insecure due to crime. Society must both fight and prevent crime. Accordingly, additional resources have been allocated to the Swedish Police. The Government has also announced a review of legislation concerning attacks against blue-light personnel. Aimed at countering unfair competition in the transport industry, the Government intends to task the Swedish Police with further developing its checks of cabotage transports.

It is also important to intensify efforts against tax crime, tax cheating and tax evasion.

Europe has undergone several horrific terror attacks in the last year. The threat scenario against Sweden cannot be ignored. Additional resources have therefore been allocated to the Swedish Security Service. In troubled times, a Government that takes responsibility for Sweden is needed. Populism and distrust of society is fomented when large groups are left behind.

#### **An equal society**

The percentage of people with a low economic standard has risen. The fight against inequality is an important aspect of building society. Equality builds trust and improves living conditions.

Disparities in disposable income have been increasing for some time. There is also research that indicates that the wealth gap has widened since the financial crisis. There are signs that the assets of high net worth

households have rapidly increased in value, while the trend for households with fewer assets has been substantially weaker.

One of the goals of the UN 2030 Agenda refers to equality. One of the sub-goals is to, by 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average. The Government's policies have contributed to a more equitable income distribution and the reforms are expected to further reduce income disparities and attain the sub-goal within the 2030 Agenda.

### **External challenges**

In January 2017, Sweden took its seat as the president of the UN Security Council and will be pursuing a resolute policy of international peace and security. Investing in peace-building and conflict prevention is an effective way to foster sustainable development and fight poverty and oppression.

Last autumn, the Government took a number of measures, such as temporary border and ID controls. As a result of these measures, together with political changes in other countries and within the EU, considerably fewer people applied for asylum in Sweden in 2016 compared with the same period in 2015. Efforts to distribute refugee reception more evenly across the EU are ongoing. Sweden's contributions include humanitarian missions and supporting the peace process in Syria.

Sweden must have an effective reception system that makes it possible for recent arrivals to become established in the labour market and society in general. Migration is regulated in Sweden and the right to asylum must be safeguarded.

Government agencies need to quickly and in a legally secure manner determine the need for protection of the numerous applicants for asylum and those who are allowed to stay must enter education or the workforce faster. At the same time, a legally secure, efficient and appropriate reception system must be ensured.

Sweden shall not face the future with cutbacks in welfare, low wages and lower climate ambitions. Sweden shall be a cohesive society. Our success shall be built on work, knowledge, equality and investments in the future.

**Table 1.1 Reforms in the Budget Bill for 2017<sup>1</sup>**

Effect on general government net lending, SEK billions

	2017	2018	2019	2020
<b>Reforms</b>				
More resources for welfare	10.88	11.05	11.07	11.07
More jobs	5.76	8.54	13.75	15.86
Sustainable future	3.77	4.95	5.65	6.14
One of the first fossil-fuel free countries in the world	2.76	2.82	1.69	1.29
Refugee reception	0.46	0.74	1.31	1.62
<b>Total reforms</b>	<b>23.60</b>	<b>28.06</b>	<b>33.43</b>	<b>35.95</b>
<b>Financing and budget reinforcements</b>				
Revenue increases	6.76	10.18	12.63	12.63
Expenditure decreases	-0.40	16.47	18.64	11.88
<b>Total financing and budget reinforcements</b>	<b>6.36</b>	<b>26.64</b>	<b>31.27</b>	<b>24.52</b>
<b>Other (net)</b>	<b>0.89</b>	<b>-2.86</b>	<b>-1.55</b>	<b>-1.30</b>
<b>Effect on general government finances, Budget Bill for 2017</b>	<b>-16.35</b>	<b>-4.27</b>	<b>-3.71</b>	<b>-12.73</b>

<sup>1</sup> A positive figure indicates a weakening of net lending.

Source: Own calculations.

Table 1.2 presents the budgetary impacts including reforms and financing previously decided or announced, ie. all proposals and announcements of reforms and financing submitted by the government to the Riksdag and to which the Riksdag has either decided or approved the estimates. The budgetary effects are reported in relation to the previous year and indicate the extent to which the change in structural balance is affected by the government's proposals for reform and financing. However, the change in structural balance is affected by factors other than the government's proposals for reform and funding. For example, it is estimated that the structural balance strengthens from 2018 and forward in the absence of new fiscal policy measures (see also section 3.4). This reinforcement over time affects the conditions for active fiscal policy, as it is the net of these two factors that summarize the impact of the central government on the change of the structural balance. For 2015-2020, the budgetary impact of the government's active reforms and financing in Table 1.2 is considered to be largely neutral for public finances.

**Table 1.2 Combined budgetary impacts of Government policy 2016–2020 in relation to previous years**

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

SEK billions

	2016	2017	2018	2019	2020
Changes in expenditure <sup>1</sup>					
Change in ceiling-limited expenditure	27	25.2	-14.7	-0.1	-1.4
Adjustment for differences between the accounting principles in the central government budget and the National Accounts	18.2	-10.2	2.4	3.2	4.1
of which, grants to municipalities and county councils <sup>2</sup>	17.6	-8.8	0	0	0
of which, infrastructure investments funded by borrowing <sup>3</sup>	0	-0.4	2.4	2.5	3.6
<b>Total changes in expenditure</b>	<b>45.2</b>	<b>15.1</b>	<b>-12.2</b>	<b>3.1</b>	<b>2.7</b>
Changes in revenue <sup>1</sup>					
Taxes, gross	32	6.7	1.4	2.3	-1.1
Indirect impact of taxes	-3.2	1.4	2	0.1	0.5
Other revenue reforms	2	0.3	-1.3	-0.1	0
<b>Total changes in revenue, net</b>	<b>30.8</b>	<b>8.4</b>	<b>2.1</b>	<b>2.3</b>	<b>-0.5</b>
<b>Changes in expenditure and revenue, impact on general government net lending<sup>1,4</sup></b>	<b>-14.4</b>	<b>-6.7</b>	<b>14.3</b>	<b>-0.7</b>	<b>-3.2</b>
<i>Per cent of GDP</i>	<i>-0.3</i>	<i>-0.1</i>	<i>0.3</i>	<i>0</i>	<i>-0.1</i>

Note: The amounts are rounded off and thus do not always agree with the total.

<sup>1</sup>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.

<sup>2</sup>The temporary support to municipalities and county councils proposed in the 2015 Extra Adjustment Budget Bill (Bill 2015/16:47) was paid from the central government budget in December 2015, but is mainly expected not to result in changed consumption in the local government sector until 2016.

<sup>3</sup>This item shows the change in net borrowing for road and rail needs. Net borrowing consists of the difference between new borrowing and amortisation.

<sup>4</sup>Excluding the indirect impact of expenditure reforms on the revenue side.

Source: Own calculations.

## The Government's further reform ambitions

The Government aims to achieve equality, development and cohesion throughout the country. Sweden will remain a pioneering country that takes international responsibility for the climate, gender equality and democracy. At present, Sweden is in a favourable position to grasp the opportunities presented by globalisation, the knowledge economy and technical progress.

### The strength of the general government finances will be maintained

Economic development in Sweden has been among the absolute best in Europe in recent years. Responsible fiscal policy and favourable growth in employment turned the former government's deficit – the largest since the economic crisis in the 1990s – into surpluses in both 2015 and 2016.

After somewhat subdued economic development elsewhere in the world, outlooks are beginning to brighten in several areas. Continued good growth is expected in Sweden in 2017 and the general government finances are strong. The Government's economic policy is based on the

fiscal policy framework. Sound general government finances secure the investment climate, jobs and welfare.

### **Unemployment must be reduced**

The economic policy is guided by the Government's objective of having the lowest unemployment in the EU. The Government's jobs agenda comprises investments in improving skills and an active labour market policy, investments in housing and infrastructure and an active business policy. Beyond this, additional hiring is needed in the welfare sector. The redirection of policy from unfunded tax cuts to investments and stronger welfare has made it possible for thousands of people to be employed in vital social functions. The transition to a fossil-fuel free country is also leading to more jobs through, for example, investments in railways and trains, expansion of green city districts and public transport and rising exports of Swedish environmental technology. Strengthening schools, healthcare and the police is not only good policy for knowledge, health and security: it is a policy that creates more jobs.

As a result of the reception of a large number of people seeking asylum, particularly in 2015, many recent arrivals will be received by the municipalities in 2017 and later years and will enter and become established in the labour market. The Government has implemented several measures during the current term in office to improve and hasten the establishment of recent arrivals, but continued measures are required.

There are signs of labour shortages in many sectors and far too many positions cannot be filled. Giving unemployed people the right skills and improving matching in the labour market is essential both to reduce unemployment and prevent bottlenecks that constrain economic growth. The Government has begun a new knowledge boost programme in an initiative that will, when fully deployed, include more than 70 000 educational places in municipal adult education, vocational adult education, liberal adult education, universities and higher vocational education.

More than 70 per cent of Swedish exports are sold to the EU internal market. Efficient trade presents great opportunities to increase growth and create more jobs in Sweden.

People must be able to rely on welfare services. Through the investment of SEK 10 billion for welfare, the Government has made one of the largest contributions to the local government sector since the general government grant was introduced. Targeted initiatives are also being made for more equal healthcare and so that more health workers can be hired and the quality of healthcare improved.

But more needs to be done to equalise the economic gaps, build away the housing shortage, increase investments in infrastructure and improve job security in the labour market. The workforce in the welfare sector needs to grow.

### **Knowledge-based education in equal schools**

The Government's objective is knowledge-based education in equal schools for all. To achieve this goal, resources must to a greater extent be allocated according to need, support interventions must be initiated earlier and we must continue to enhance the attractiveness of the teaching profession. The additional SEK 10 billion to welfare is supporting local authorities, along with the Government's investments in smaller classrooms, more staff in the early years of compulsory school, a reading/writing/arithmetic guarantee, reinforced special needs education, leadership in the classroom, teacher training and teacher pay. The final report from the 2015 Schools Commission, which was submitted in April 2017, will be a key input for the Government's continued efforts to improve and develop Swedish schools.

### **A leading role in the climate transition**

Climate change is one of the most important challenges humanity is facing and the defining issue of our time. Global capacity to transition to sustainable solutions is important to future economic development. The Paris Agreement must be implemented. The Government has presented a new climate policy framework to guide the climate efforts of this and future governments.

Sweden shall lead the effort to implement the UN 2030 Agenda at both the global and the national level. All policy areas must contribute to a fair and sustainable world. Sweden is a leader in international development efforts and will continue to support initiatives towards democratic development around the world.

The steering effect of environmental taxes must increase and encourage more climate-smart transports and energy sources in order to attain set targets in a cost-effective way. A proposal to institute a bonus-malus system for new lightweight vehicles and obligatory reduction of greenhouse gas emissions from petrol and diesel fuel has been circulated for consultation.

The Government has produced supplementary prosperity indicators that shed light on economic, environmental and social aspects of quality of life.

### **Sweden must be safe**

Among other actions, the Government has announced a significant increase in the minimum sentence for serious weapons offences and has proposed tougher sentencing guidelines for illegal handling of explosive goods, such as hand grenades. The Swedish Police have been allocated funds to continue the effort to get more police closer to citizens. Increased police presence in deprived areas is a matter of urgency. The Government has also appointed a commission of inquiry concerning further protection for blue-light personnel in their work.

Police resources will be further reinforced. Organised crime must be fought. At the same time, segregation and economic gaps must be

counteracted by getting more people into work, implementing initiatives for equal schools, building away the housing shortage and investing in safe neighbourhoods.

### **Building our society must increase equality and cohesion**

Although Sweden is still a relatively equal country by international comparison, the wealth gap has been widening for a long time.

Growing inequality tends to reduce cohesion and trust among citizens, which can lead to increased social problems and undermine trust in public institutions. Redistribution of resources is therefore important. A central objective of the economic policy is that the growing prosperity of Sweden must benefit everyone. This is a prerequisite for citizens to feel continued trust in the functioning of society. One of the goals of the UN 2030 Agenda refers to equality. One of the sub-goals is to, by 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average. The 2030 Agenda delegation will submit a proposed action plan in spring 2017 for Sweden's implementation of the Agenda.

The challenges Sweden is facing require vigorous measures. The strengths of the Swedish economy and the general government finances must be used in solidarity to build a society that reduces injustice. The Government's economic policy is holding firm in a difficult parliamentary situation and an uneasy world situation. This is how the Government is taking responsibility in troubled times.

### **The Government's view of the Council's recommendations from 2016**

The Council adopted country-specific recommendations to the Member States on 12 July 2016. In the formal Council Decision, the Council recommends that Sweden take action in 2016 and 2017 to:

Address the rise in household debt by adjusting fiscal incentives, in particular by gradually limiting the tax deductibility of mortgage interest payments or by increasing recurrent property taxes. Ensure that the macroprudential authority has the legal mandate to implement measures to safeguard financial stability in a timely manner. Foster investment in housing and improve the efficiency of the housing market, including by introducing more flexibility in setting rental prices and by revising the design of the capital gains tax to facilitate more housing transactions.

The Government welcomes the reviews conducted within the framework of the European Semester. The Government shares the Commission's assessment that increasing household indebtedness poses a risk to macroeconomic stability. Moderating increased household indebtedness is an important challenge and the Government has taken action in

response. The recommendation is addressed in section 2.3 and in the National Reform Programme.

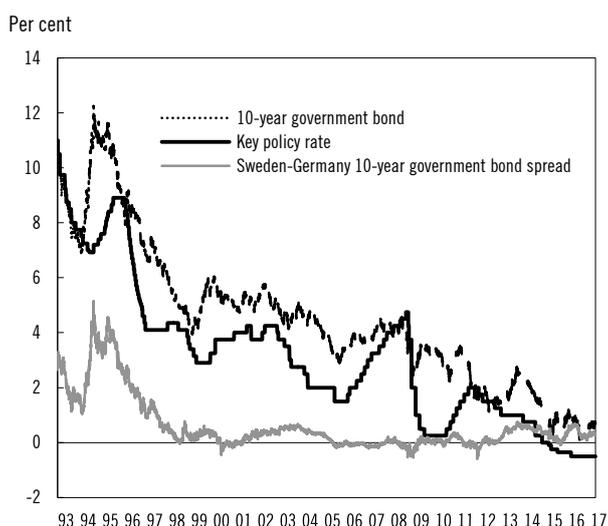
## 1.5 Monetary policy

Swedish monetary policy is expansionary. The Riksbank has since December 2011 cut the repo rate in stages from 2 per cent to a record-low of minus 0.50 per cent, which applied after the decision in February 2016 (see

chart 1.1). The repo rate has been negative since February 2015. The reasons for the reductions in the repo rate were low inflation, concern about falling inflation expectations and the weak economic situation. In addition to holding the negative policy rate, the Riksbank has carried out a comprehensive government bond purchase programme that will continue until at least mid-2017.

Market unease arose after the British people voted on 23 June 2016 to leave the EU. The effects included precipitous declines in government bond yields. The unease passed relatively quickly, however, and was succeeded in the following months by rising inflation expectations accompanied by improved international economic outlooks. Consequently, Swedish and many foreign government bond yields rose in the third quarter of 2016 to the levels in effect before the British referendum. The outcome of the US presidential election in November 2016 led to expectations of a more expansionary fiscal policy in the United States, which brought a continued rise in inflation expectations and further widespread yield upturns in late 2016.

**Chart 1.1 Interest rates in Sweden**



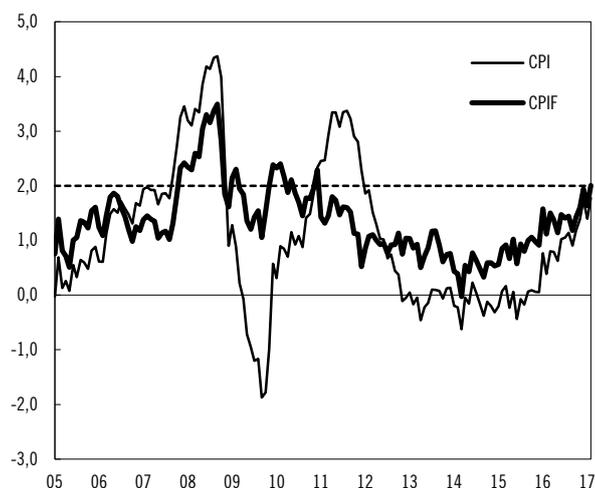
Sources: Riksbank and Macrobond

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 services

during the first half of 2016 also had significant impact on the inflation trend. Underlying inflation measured as CPIF, which shows CPI at a fixed home mortgage rate, has trended upwards since 2014. As mortgage interest rates have remained more or less unchanged for the last 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



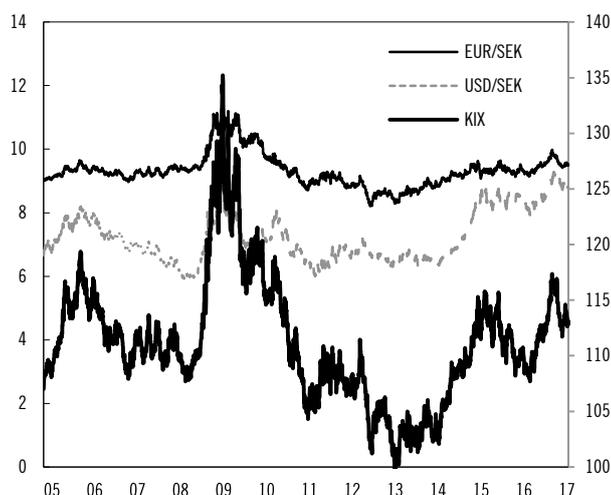
Note: The dashed line is the Riksbank's inflation target.

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 depreciated against many currencies since 2014, which is explained to a certain extent by the Riksbank's expansionary monetary policy. The Riksbank has also stated repeatedly that it is prepared to act with further monetary policy stimulation if appreciation of the krona posed a risk to the upturn in inflation.

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

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



Source: The Riksbank.

## 2 The macroeconomic development

### 2.1 International and financial economy

The global economic recovery is ongoing, although global GDP growth was moderate in 2016. However, growth in world trade and global industrial production rose at the end of 2016. Indicators at the start of 2017 imply stronger economic development in the coming period. A modest rise in global growth is expected. Higher global growth contributes to a stronger development in Swedish export markets.

GDP growth in the US economy rose in the second half of 2016 after a weak beginning to the year. Confidence indicators suggest continued relatively high growth in the first half of 2017. A more expansionary fiscal policy and rising consumer confidence, due in part to low unemployment, is expected to advance the trend. At the same time, the US economy is close to full resource utilisation and monetary policy tightening has begun. Overall, growth is expected to be comparatively high in 2017 and 2018.

Growth was moderate in the euro area in 2016 and the investment trend was subdued in many countries. Weak balance sheets in the banking sector are expected to remain a constraint on lending and investments in forthcoming years. Fiscal policy was tightened and general government finances were consolidated in the period of 2011–2013. Thereafter, fiscal policy has been more or less neutral, a stance that is expected to persist over the next few years. Continued expansionary monetary policy is helping to stimulate demand in the economy. As a whole, GDP in the euro area is expected to grow in 2017 and 2018 at about the same moderate rate as in 2016.

The Chinese economy was stimulated in 2016 by an expansionary monetary policy and fiscal policy measures, including investments in infrastructure. One effect of the stimulus policy has been a steep rise in house prices and private sector debt. At the end of 2016 and in early 2017, measures were taken to moderate the rise in house prices. A less expansionary stabilisation policy is expected to contribute to some moderation in growth in 2017 and 2018. Rising commodity prices are further contributing to a recovery in several of the commodity-exporting emerging economies that have had a weak development in recent years.

## **2.2 The Swedish economy**

Economic growth has been high in Sweden in recent years and the economic situation has improved considerably. Growth is expected to remain high in 2017, but fall back slightly in 2018 when general government sector consumption slows down, primarily due to reduced expenditure for migration and integration. Growth in exports will also be slower after the steep rise this year. Overall, resource utilisation is expected to be somewhat strained in 2017 and 2018 (see Table 2.1).

Unemployment has decreased significantly since 2014. However, unemployment declined at a slower rate in 2016, partly due to the relatively rapid increase in the number of people in the labour force. There was a strong increase in employment in several sectors, particularly within municipal agencies. Unemployment is expected to continue to decline over the next few years due to high demand for labour. Labour force participation, i.e., the number of persons in the labour force as a percentage of the working-age population, has increased steadily since 2010. This applies primarily to people born abroad. Labour force participation will continue to increase over the next few years and stabilise thereafter at a high level from an international perspective. The reason labour force participation is not expected to continue increasing is that groups with lower average labour force participation, such as older people and recent arrivals to Sweden, will make up an increasing proportion of the working-age population.

Wage development was subdued in 2016 and wage expectations are low. The wage growth rate in 2017 is therefore expected to be lower than the average for 1993–2016, in spite of a strong labour market situation. However, developments differ somewhat from sector to sector. Resource utilisation in the labour market has risen and because the increase affects the wage growth rate after a certain lag, higher wage increases are expected in 2018. The inflation rate, which had been low for a long time, rose in 2016. The increase is largely attributable to rising energy prices. The inflation rate is expected to continue rising in 2017. High energy prices are expected to continue making a positive contribution, which, along with higher import prices, will increase the inflation rate. In addition, somewhat strained resource utilisation is

expected to increase the opportunities of businesses to increase prices going forward.

**Table 2.1 Key indicators**

Annual percentage change if not otherwise stated. Based on proposed and implemented reforms.

	2016	2017	2018	2019	2020
GDP	3.3	2.6	2.1	2.0	2.5
GDP gap <sup>1</sup>	-0.1	0.5	0.4	0.1	0.0
Employment <sup>2</sup>	1.5	1.8	1.0	0.7	0.7
Employment rate <sup>3</sup>	81.2	81.7	81.8	81.9	81.9
Hours worked <sup>4</sup>	1.7	1.5	0.9	0.7	0.7
Productivity, business sector <sup>4,5</sup>	1.7	1.9	1.5	1.6	1.9
Unemployment <sup>6</sup>	6.9	6.6	6.4	6.3	6.2
Wages <sup>7</sup>	2.5	2.9	3.2	3.4	3.4
CPI <sup>8</sup>	1.0	1.5	1.6	2.2	2.7

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

<sup>2</sup>Persons, 15–74 years.

<sup>3</sup>According to the EU 2020 target; that is, those in employment as a percentage of the population in the age bracket 20–64 years.

<sup>4</sup>Calendar-adjusted.

<sup>5</sup>Labour productivity measured as added value to base price per hour worked.

<sup>6</sup>Per cent of the labour force, 15–74 years.

<sup>7</sup>Measured according to the short-term wage statistics.

<sup>8</sup>Annual average.

Sources: Statistics Sweden and own calculations.

### 2.3 Potential macroeconomic imbalances

The emergence of macroeconomic imbalances, for example in 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 to primarily implement measures that prevent macroeconomic imbalances from occurring and, secondarily, to identify and at an early stage correct any imbalances that do occur. It is difficult to provide a precise definition of macroeconomic imbalance, but an imbalance reflects an underlying problem that has the potential to lead to a rapid and significant correction that has adverse impact on the entire economy.

#### The macroeconomic imbalance procedure

The EU Macroeconomic Imbalance Procedure is organised within the European Semester and is part of economic policy coordination in the EU. The procedure began when the European Commission published the Alert Mechanism Report 2017 in November 2016. The report contained a preliminary economic analysis of the Member States, including a scoreboard with indicators in areas that might constitute macroeconomic imbalances. For Sweden, the Macroeconomic Imbalance Procedure indicated that rapidly falling export market shares, high private sector debt and rising house prices were potential imbalances.

In February 2017, the Commission published in-depth reviews of the 13 Member States that had been identified as countries with potential imbalances in the Alert Mechanism Report. The Commission judged that macroeconomic imbalances existed in 7 of these Member States, including Sweden, with excessive imbalances in 6 of these. All Member - States assessed as having imbalances will be subject to specific monitoring, which is adapted to the degree and nature of the imbalances presented.

The Commission will submit a proposal on measures to address these imbalances within the scope of the European Semester. These proposals will form part of the package of country-specific recommendations that the Commission will present in May 2017. The proposals on country-specific recommendation will take into account the information provided in the Member States' National Reform Programmes and Convergence or Stability Programmes. If the Commission finds that a Member State assessed as having excessive imbalances has taken inadequate measures, the Commission may recommend that the Council initiate the Excessive Imbalance Procedure, which is the corrective arm of the Macroeconomic Imbalance Procedure.

In the 2017 In Depth Review for Sweden, the Commission's assessment found macroeconomic imbalances, noting in particular the high and increasing level of household debt and rising rapidly house prices.

### **Household debt**

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

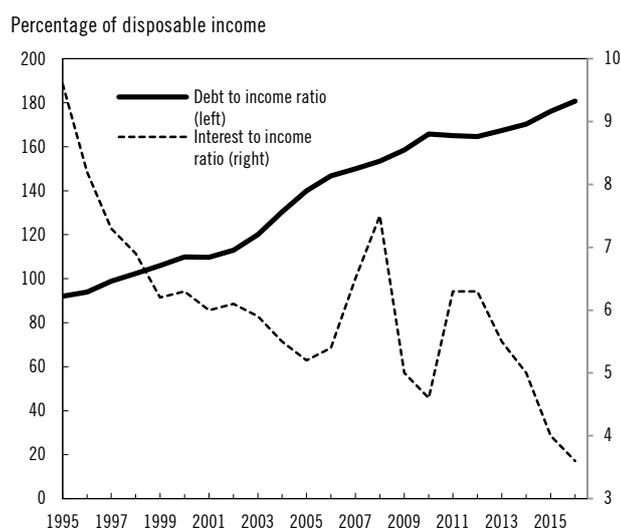
In the years from 1995 to 2016, Swedish household debt increased significantly (see chart 2.1). At the aggregated level, this development can be described in terms of debt-to-income ratio and interest-to-income ratio, where the debt and the interest payments after tax, respectively, are compared to households' disposable incomes. Despite the debt-to-income ratio being at a historically high level, the interest-to-income ratio is the lowest for the past 20 years. Lower interest rates have thus resulted in households being able to take on larger amounts of debt without higher interest payments, and making it possible to consume, invest or save more.

Following several years of upturns, the debt-to-income ratio amounted to just above 180 per cent of households' disposable incomes at the end of 2016. Swedish household indebtedness is high both from a historical perspective and compared to other countries.

The increase in household indebtedness over the last two decades can be explained by extensive construction of new owner occupied apartments and houses in recent years, homes that households buy with mortgage loans. A larger proportion of households now own their

homes. The costs of mortgage loans and home ownership have declined due to lower interest rates and a cap on the municipal property charge, which about 60 per cent of house owners reach. This means that households can, in general, deal with a higher individual debt-to-income ratio. The increase in the aggregate debt-to-income ratio is thus explained both by more households having mortgage loans and by households having larger loans on average. The Commission particularly notes the high debt-to-income ratio of young households.

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



Source: Statistics Sweden.

Despite the risk of financial instability being judged as low, vigilance concerning the macroeconomic consequences of high household indebtedness is justified.

The Government believes it is critically important to take carefully considered measures to check the rate of growth in household indebtedness, so that the measures do not trigger a rapid and uncontrolled downturn in house prices resulting in serious adverse impact on economic growth and employment. In autumn 2010, Finansinspektionen adopted general guidelines for mortgages with the home as collateral. The mortgage loan-to-value ceiling meant that new loans should not exceed 85 per cent of the market value of the property. Finansinspektionen's annual mortgage survey has shown that the proportion of new mortgages with LTV above 85 per cent has declined sharply since 2010.

Increased amortisation will reduce household debt over the long term, which improves households' resilience to disruptions. The proposed legislation on the amortisation requirement, which gives Finansinspektionen a mandate to issue regulations concerning amortisation requirements for new mortgage loans, entered into force 1 May 2016. Thereafter, Finansinspektionen, following the

Government's approval, decided regulations on the amortisation requirement, which entered into force 1 June 2016.

Furthermore, in October 2016 the Government, the centre-right parties and the Left Party reached a broad political agreement to extend Finansinspektionen's mandate to take macroprudential policy measures. The Ministry of Finance then circulated a memorandum, *Further Tools for Macroprudential Policy*, for consultation. The memorandum is based on the political agreement and the main proposal is that Finansinspektionen should be given a stronger basis in law for, upon Government approval, taking measures to counteract financial imbalances in the credit market. It is proposed that the legislative amendments should come into force on 1 February 2018.

The Government also shares the Commission's assessment that the tax system may affect owner-occupier mobility in the housing market. Changes in real estate taxation in recent years have moved towards lower recurrent taxation and higher taxation when transactions are made. Aimed at increasing mobility in the housing and labour markets, the rules on deferred capital gains upon sale of a private home were changed effective 1 January 2017. The cap on deferred capital gains was abolished 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 upon purchase of a cheaper home has been changed so that it is more generous, other than in exceptional cases.

A wide range of measures have been taken in recent years, aimed at strengthening the banks' resilience to financial crises and curbing the rate at which household debt has grown. The Government and relevant agencies are continuing to examine the risks of household indebtedness and are prepared to take further measures if so required.

## 3 General government finances

### 3.1 Accounting principles

This section details the forecast for the general government finances given in the 2017 Spring Fiscal Policy Bill (Bill 2016/17:100). Accounts of general government revenue and expenditure are in accordance with European System of Accounts (ESA 2010). The Government's accounts, which are also used by the National Institute of Economic Research (NIER), differ in certain respects from ESA 2010 (see table 3.1). The differences depend mainly upon that parts of sales revenues from public enterprises are recorded on expenditure side in the national statistics, as a debit item among general government consumption expenditure, while these revenues are recorded on the income side according to ESA 2010 (although net lending does not differ). A detailed account of the general

government finances in accordance with ENS 2010 (and EDP) is provided in table C.2a in Appendix C.

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

Per cent of GDP

	2016	2017	2018	2019	2020
<b>SFPB17</b>					
Revenue	49.4	49.0	49.0	49.1	49.1
Expenditure	48.5	48.7	48.4	47.7	47.0
Net lending	0.9	0.3	0.6	1.4	2.1
<b>ESA 2010</b>					
Revenue	50.3	49.9	49.9	50.0	50.0
Expenditure	49.4	49.6	49.3	48.6	47.9
Net lending	0.9	0.3	0.6	1.4	2.1

Note: SFPB17 = Spring Fiscal Policy Bill for 2017.

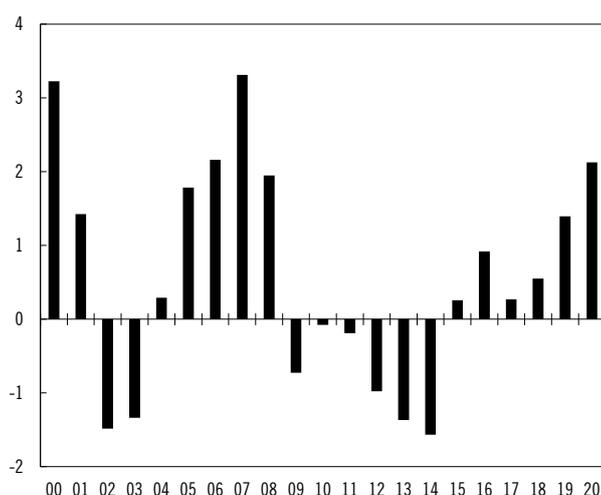
Sources: Statistics Sweden and own calculations.

### 3.2 Development of general government finances

The general government finances have improved substantially since 2014 (see chart 3.1). After the rapid recovery of finances in 2015, net lending was further improved in 2016, albeit at a somewhat slower rate. The improvement in the general government finances is attributable to strong economic growth as well as the responsible economic policy pursued by the Government since taking office. Growth in public expenditure has been significantly slower than growth in GDP, in spite of the high expenditure consequent upon the very large number of people who applied for asylum in Sweden during the autumn of 2015.

**Chart 3.1 General government net lending 2000–2020**

Per cent of GDP



Sources: Statistics Sweden and own calculations.

Slower growth in revenues and faster increases in expenditure in 2017 are expected to cause a temporary impairment of general government finances. From 2018, and under a no-policy-change assumption, they are expected to successively strengthen again with a decline in expenditure as a proportion of GDP.

When policy is held firm, net lending is normally strengthened as tax revenues normally increase 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 rising wages because a certain increase in productivity is presumed in the price and wage recalculation system. If there are no new active decisions, the general government finances are normally reinforced automatically.

**Table 3.2 General government finances**

Per cent of GDP if not otherwise stated

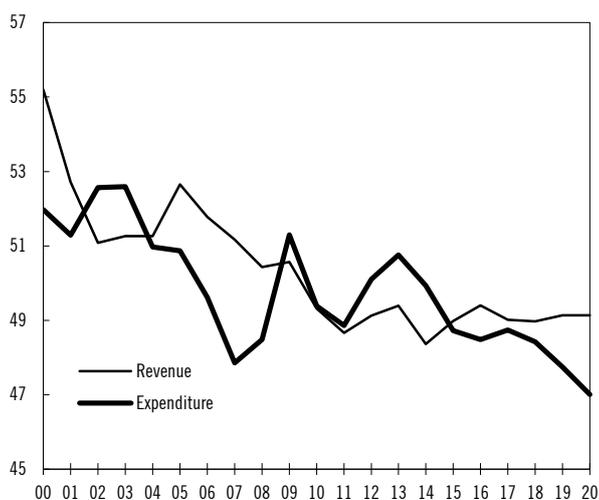
	SEK billions					
	2016	2016	2017	2018	2019	2020
<b>Revenue</b>	<b>2,163</b>	<b>49.4</b>	<b>49.0</b>	<b>49.0</b>	<b>49.1</b>	<b>49.1</b>
Taxes and charges	1,914	43.7	43.5	43.4	43.6	43.6
Household direct taxes	569	13.0	13.0	13.0	13.1	13.1
Corporate direct taxes	120	2.7	2.7	2.7	2.8	2.8
Employers' contributions	234	5.3	5.3	5.3	5.3	5.3
Indirect taxes	991	22.6	22.5	22.4	22.4	22.3
Income from capital	66	1.5	1.4	1.4	1.4	1.5
Other revenue	183	4.2	4.1	4.1	4.1	4.1
<b>Expenditure</b>	<b>2,123</b>	<b>48.5</b>	<b>48.7</b>	<b>48.4</b>	<b>47.7</b>	<b>47.0</b>
Transfer payments <sup>1</sup>	769	17.4	17.5	17.4	17.0	16.7
Consumption	1,144	26.1	26.3	25.9	25.6	25.2
Investments	191	4.4	4.4	4.4	4.4	4.4
Interest expenditure	25	0.6	0.6	0.7	0.7	0.7
Expenditure for return of capital on pension debt	7	0.1	0.1	0.1	0.1	0.1
<b>Net lending</b>	<b>40</b>	<b>0.9</b>	<b>0.3</b>	<b>0.6</b>	<b>1.4</b>	<b>2.1</b>
Primary balance	59	1.3	0.7	1.1	1.9	2.7
<b>Consolidated gross debt</b>	<b>1,820</b>	<b>41.6</b>	<b>39.5</b>	<b>37.3</b>	<b>34.7</b>	<b>31.4</b>
<b>Net debt</b>	<b>-919</b>	<b>-21.0</b>	<b>-22.5</b>	<b>-23.3</b>	<b>-24.6</b>	<b>-26.7</b>

Sources: Statistics Sweden and own calculations.

The changes in general government net lending are explained mainly by developments in the central government. Net lending in the old-age pension system is expected to weaken somewhat in 2017 compared with 2016, but thereafter to be more or less in balance through the end of 2020. The local government sector reports negative net lending over the course of the forecast period, but a positive result according to the accounting principles that apply to local government balanced budget requirement (see also section 3.6).

**Chart 3.2 General government revenue and expenditure 2000–2020**

Per cent of GDP



Sources: Statistics Sweden and own calculations.

The tax ratio is expected to decrease by 0.2 percentage points in 2016 and 2017. Most of the decrease is attributable to the expected decline in revenues from tax on production.

The tax ratio is expected to be more or less unchanged in 2018, but to increase slightly in 2019, compared with 2017, among else because tax on capital is expected to grow faster than GDP. Total revenue as a proportion of GDP is expected to develop in line with the tax ratio and decrease from 49.4 per cent of GDP in 2016 to 49.1 per cent of GDP in 2020 (see chart 3.2).

### Expenditures as a proportion of GDP

A marginal increase in the expenditure ratio (expenditure relative to GDP) is expected in 2017 compared with 2016. Above all, transfer payments to the rest of the world are growing faster than GDP, consequential upon that these transfer payments were temporarily lower in 2016. This depends on that the retroactive rebate that Sweden receives on EU membership dues and which will be deducted from the dues in 2017 must, according to a directive from Eurostat, be reported in the National Accounts in 2016. Under a no-policy-change assumption, GDP will grow faster than expenditures from 2018, especially for public sector consumption and transfer payments to households, which will help reinforce general government finances.

### Improvement in net lending occurring at the central government level

The improvement in the general government finances since 2014 has occurred primarily in the central government (see table 3.3). However, net lending is expected to weaken temporarily in 2017 when expenditure rises faster than in 2016, which is largely attributable to the effect of the rebate on EU membership dues that temporarily reduced expenditure in 2016. In addition, the costs related to applicants for asylum are expected

to increase somewhat compared with 2016. Growth in central government revenue from taxes and dividends is also expected to be slightly slower than in 2016.

Under a no-policy-change assumption, central government net lending is expected to gradually improve from 2018 due to the automatic budgetary strengthening. Expenditure also declines as a proportion of GDP as the costs for migration and integration are expected to gradually decline.

**Table 3.3 Net lending and the central government budget balance**

Per cent of GDP

	2016	2017	2018	2019	2020
<b>General government net lending</b>	<b>0.9</b>	<b>0.3</b>	<b>0.6</b>	<b>1.4</b>	<b>2.1</b>
Central government	1.1	0.6	1.0	2.0	2.6
Old-age pensions system	0.1	0.0	-0.1	-0.1	0.0
Local government sector	-0.3	-0.3	-0.4	-0.5	-0.5
Central government budget balance	1.9	0.0	1.1	2.0	2.4
Central government debt	29.6	27.6	25.2	22.3	18.8

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 regulations 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, with deductions for the Swedish National Pension Funds' holdings of government bonds.

Prior to 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, the debt has increased by approximately SEK 600 billion, amounting to just over SEK 1 800 billion at the close of 2016.

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 year. At the same time, central government claims on the Riksbank increased to a corresponding extent. The debt further 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 repos over the turn of the year. The effect on assets and debt is of equal magnitude in the National Accounts and the change is therefore neutral with respect to net worth. Because these repos are managed by the Legal, Financial and Administrative Services Agency, central government debt is not affected according to accounts in the central government budget, which reflect only debt management by the National Debt Office. Otherwise, the

deficit in general government finances and currency effects contributed to the debt increase between 2012 and 2014.

However, the debt has decreased considerably as a proportion of GDP since 1994, amounting to 41.6 per cent of GDP (the debt ratio) at the end of 2016, which is significantly below the reference value stated in the Stability and Growth Pact of a maximum of 60 per cent of GDP.

Debt developments are dependent upon 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 decline throughout the forecast period due to stronger general government finances. In 2020, the debt ratio is estimated to be 31 per cent of GDP.

#### **The general government's net financial wealth is strengthening**

The general government sector has positive net financial wealth that resides mainly in the national pension funds in the old-age pension system. The central government's net financial wealth is negative and the financial assets and liabilities of the local government sector have been essentially in balance since 2000.

In addition to consolidated gross debt, total debt includes central government commitments and local government sector commitments for defined-benefit occupational pensions earned since 1998.

net financial wealth amounted to 21 per cent of GDP in 2016, which was an increase of nearly 2 per cent of GDP compared with 2015. Of the increase, 0.9 percentage points were attributable to the surplus in the general government finances, but GDP growth instead made a negative contribution of 0.9 percentage points. Other changes, mainly referring to changes in the value of assets in the pension system, accounted for an improvement of 1.8 percentage points.

The surplus in net lending together with anticipated changes in the value of assets, primarily in the pension system, will gradually increase net financial wealth in the period of 2018–2020. Beginning with the Budget Bill for 2017, forecasts are made for increases in the value of securities assets in all sectors.

### **3.4 Reconciliation against the general government net lending target**

According to the net lending target, general government net lending should equal 1 per cent of GDP on average over the course of an economic cycle. Formulating the target as an average over an economic cycle instead of an annual requirement target is justified for reasons of stabilisation policy. If the target were to be 1 per cent each individual year, fiscal policy would need to be contractionary in an economic downturn to ensure that the annual target is 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 the fiscal policy is in line with the target because it is difficult to determine when an economic cycle begins and ends, as well as the cyclical position of the economy.

#### **The Government's monitoring of the government net lending target**

As the general government net lending target mainly constitutes a prospective guideline for fiscal policy, it is primarily monitored prospectively. However, a retrospective analysis is conducted in order to see whether there have been any systematic failures of fiscal policy that may reduce the probability of achieving the target in the future. The Government considers it important that clear principles for monitoring general government net lending exist and that monitoring is transparent. The Government therefore employs a number of indicators in the monitoring process. If the application of these indicators is excessively mechanical, however, there is danger that fiscal policy will amplify rather than moderate fluctuations in economic activity. The Government's starting point is thus that the assessment of the direction of fiscal policy will have a broad approach in which a number of individual targets and restrictions are compared to one another.

When a deviation from the net lending target has been assessed, the Swedish Budget Act requires the Government to report how a return to the target will be accomplished. The drafting history to the provision emphasised the following: an analysis should indicate that a deviation exists because the Government should have a duty to provide such an account (Bill 2013/14:173).<sup>3</sup> Moreover, the plan presented by the Government for how a return to the target will be accomplished should refer to a medium-term perspective, which normally refers to three or four years. If net lending deviates from the target, the Government should present a plan for how a return to the target will be accomplished that incorporates the forecast years included in the Budget Bill.

It is important that deviations from the target level are corrected, but this cannot be done mechanically. An overall assessment of how a deviation should be corrected must be conducted based on stabilisation policy, redistribution policy and structural policy.

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<sup>3</sup> The contents of the underlying bill, An Improved Budgetary Process (Bill 2013/14:173) were described in greater detail in Sweden's Convergence Programme for 2014.

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

Per cent of GDP if not otherwise stated

	2016	2017	2018	2019	2020
<b>Net lending</b>	<b>0.9</b>	<b>0.3</b>	<b>0.6</b>	<b>1.4</b>	<b>2.1</b>
Retrospective ten-year average	0.2				
The seven-year indicator	0.1	0.6			
Structural balance	1.0	0.3	0.6	1.4	2.2

Sources: Statistics Sweden and own calculations.

### Retrospective ten-year average

Average general government net lending was 0.2 per cent of GDP over the course of 2007–2016 (see table 3.4). The low level is explained partly by the effects of the protracted recession on the general government finances, but also by unfunded measures, including several tax reductions that were implemented before 2015.

### The seven-year indicator

The seven-year indicator is an average of net lending in the current year, three years prospectively and three years retrospectively, adjusted for one-off effects during the same period. The seven-year indicator shows that general government net lending was 0.9 per cent of GDP below the target level in 2016, but will improve by 0.5 per cent of GDP by 2017 (see table 3.4).

### Structural balance

The structural balance is an assessment of how large general government net lending should be if GDP corresponded to the potential level and the composition of demand was normal, so that the sectors' revenues and expenditures are adjusted for the cyclical conditions and one-off effects. The structural balance is not included in official statistics and can be calculated in several different ways. Consequently, the level of the structural balance may vary according to different assessors and that there is no generally accepted outcome.

The structural balance for 2016 is estimated as on par with the target level of 1 per cent. Thereafter, the structural balance is expected to weaken to around 0.3 per cent of potential GDP in 2017. The structural balance is, however, also affected that year by temporarily high expenditure for refugee reception. The deterioration in the structural balance between 2016 and 2017 is due mainly to temporary factors, including further increases in expenditure for migration and slightly weaker revenue growth compared to GDP growth. Without new fiscal policy measures, the structural balance will strengthen substantially from 2018 and forward.

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

The Government's responsible fiscal policy has, combined with growth in the Swedish economy, made it possible to reverse the large deficit from 2014 to a surplus while financing urgent social investments at the same time. According to the latest calculations, the general government finances show a surplus from 2015 and forward. The Government's assessment is that there is no longer any clear deviation from the surplus target. Net lending and the structural balance are assessed as in line with the surplus target from 2016 and forward, although the net lending will be temporary below the target in 2017.

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

Sweden's MTO is that the structural balance should not fall below minus 1 per cent of potential GDP, as assessed by the EU Commission.

**Table 3.5 Structural balance as calculated by the European Commission**

Per cent of potential GDP

	2016	2017	2018
<b>Structural balance</b>	<b>0.3</b>	<b>-0.3</b>	<b>0.3</b>
Medium term budgetary objective (MTO)	-1.0	-1.0	-1.0

Source: European Commission's winter forecast (February 2016).

The European Commission's latest forecast, published in February 2017, estimates the structural balance in Sweden at 0.3 per cent of potential GDP in 2016 (see table 3.4). The structural budget balance is forecast to be minus 0.3 per cent of potential GDP in 2017, which is lower than the Government's assessment (see Table 3.5). The difference is due to factors including different assessments of economic development and the use of different methods to calculate the structural balance, and that the Commission's forecast was published before the strong outcome for net lending in the National Accounts for 2016 was published. Even though it is lower than the Government's and does not take into account the strong outcome in the National Accounts for 2016, the Commission's February 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 expenditure ceiling

The multi-year expenditure ceiling serves to foster the credibility of economic policy and is an important budgetary policy commitment for the Riksdag and the Government. All expenditure in the central government budget is subject to the expenditure ceiling, with the exception of interest payments on central government debt. In addition, expenditure on the old-age pensions system is encompassed by the expenditure ceiling. In the monitoring of the expenditure ceiling, ceiling-restricted expenditure consists of actual rather than budgeted expenditure, meaning that the authorities' utilisation of appropriations savings and appropriations credit is included. The difference between the expenditure ceiling and the ceiling-restricted expenditure is termed the budgeting margin. As a rule, if the budgeting margin is utilised, the general government finances deteriorate. 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. The reasons for this include that the surplus target may constrain the level of ceiling-restricted expenditures even if space below the expenditure ceiling exists.

According to the Swedish Budget Act, the Government is obliged to propose an expenditure ceiling for the third additional year. This proposed level forms the basis for the Riksdag's decision on the expenditure ceiling. In the Budget Bill for 2018, the Government will, in accordance with the Swedish Budget Act, propose a level for the expenditure ceiling for 2020. In the Spring Fiscal Policy Bill for 2017, the Government estimates that the level of the expenditure ceiling for 2020 should amount to SEK 1,466 billion. An estimated level is not subject to decision by the Riksdag.

The budgeting margin under the expenditure ceiling for 2017 is estimated at SEK 32 billion, which the Government considers adequate to manage the uncertainty in expenditure growth. The estimated budgeting margin is SEK 61 billion for 2018 and SEK 112 billion for 2019.

**Table 3.6 Expenditure ceiling**

SEK billions if not otherwise stated

	2015	2016	2017	2018	2019
Expenditure ceiling	1,158	1,215	1,274	1,332	1,392
Per cent of GDP	27.7	27.7	27.8	28.0	28.1
Ceiling-restricted expenditure	1,135	1,184	1,242	1,271	1,280
Per cent of GDP	27.1	27.1	27.1	26.7	25.8
Budgeting margin	23	31	32	61	112
Per cent of GDP	0.6	0.7	0.7	1.3	2.3

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

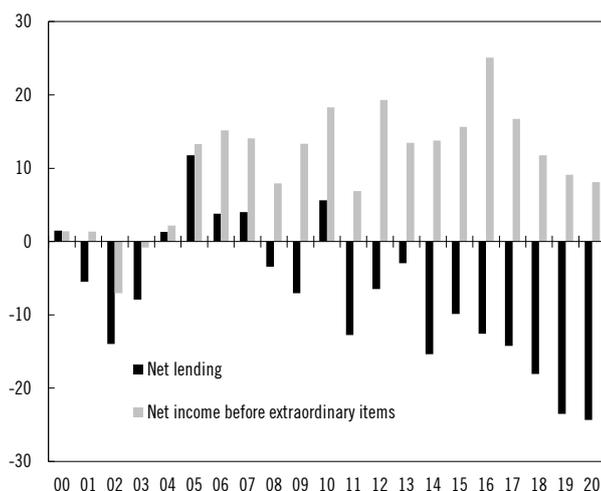
### 3.6 Monitoring sound financial management and the local government balanced budget requirement

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 municipal organisations. The surplus target is expressed in terms of net lending as defined in the National Accounts. 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 (1991:900). According to this requirement, municipalities and county councils must draw up budgets in which income exceeds expenditure. Only in exceptional cases are deviations from the balanced budget requirement permitted. A deficit result in the closing accounts must be corrected within three years, unless there are exceptional grounds. This requirement represents the lowest acceptable short-term net income.

There are differences in accounting methods between the local government accounts and the National Accounts that may amount to several billion kronor for a particular year (see chart 3.3). These discrepancies are due to the fact that local government accounting is based on the same theoretical principles as those which apply to accounting in the business sector. If, for example, investment expenditure were to rise substantially between two years, this would have an immediate impact on net lending, while net income would only be affected by depreciation.

**Chart 3.3 Local government net income and net lending**

SEK billions



Sources: Statistics Sweden and own calculations.

According to the Swedish Local Government Act, municipalities and county councils must also maintain sound financial management in their operations. Effective from 2005, municipalities and county councils set the financial targets that are significant to sound financial management.

A commonly used measure is that net income corresponding to 2 per cent of revenue from taxation and general central government grants meets the requirement for sound financial management. The annual reports of municipalities and county councils must contain an assessment of whether the balanced budget requirement has been met. These reports must also include an evaluation of whether the requirement for sound financial management has been achieved.

As of 1 January 2013, municipalities and county councils are permitted to build up balancing funds within the scope of their equity. Surpluses can be set aside in good times to be utilised if deficits arise as a result of an economic downturn. The introduction of balancing funds can be seen as a clarification of the overall objective of sound financial management.

### **Development of net income in local government**

The local government sector reported preliminary net income before extraordinary items of SEK 25 billion in 2016 (see chart 3.3). The strong result is mainly attributable to favourable development of the tax base. The additional general government grant of SEK 10 billion that municipalities and county councils received in December 2015 was mainly reported as income in 2016 in their accounts, which also contributed to the high net income in 2016.

### **3.7 Central government guarantees**

According to the Swedish Budget Act, the Government may issue credit guarantees and make other similar commitments for the purpose and not exceeding the amount determined by the Riksdag. A central government guarantee undertaking entails the central government providing a surety for another party's payment obligation, which incurs a financial risk for the central government.

General rules for management of central government guarantees are provided in the Budget Act (2011:203) and augmented in the Guarantee Ordinance (2011:211). Among else, the rules require the central government to impose a guarantee charge corresponding to the expected costs of the commitment, unless the Riksdag decides otherwise. Estimated costs for guarantees consist of anticipated losses and administrative costs associated with the commitment. Anticipated losses are a statistical measurement of potential credit losses based on the assessment, with some degree of probability, that the beneficiary of the guarantee or the borrower will not meet its obligations. Charges for anticipated losses are deposited in accounts with the National Debt Office or banks, or are invested in securities. The guarantee scheme is thus expected to be self-financed in the long term. These principles for extending guarantees are referred to as the central government 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 empowered to exempt specific guarantees from the guarantee model. Accordingly, there are guarantees that are regulated separately and whose terms and conditions depart from those stipulated in the Budget Act. Charges for such guarantees are ordinarily stipulated directly in law and may be based upon grounds other than that they must cover expected costs. The deposit insurance scheme, which is the central government's largest guarantee commitment, and the investor compensation scheme are examples of guarantees regulated under special arrangements.

Guarantee capital to international financing institutions constitutes another exception from the guarantee model, as decided by the Riksdag.

On the instructions of the Government, the National Debt Office performs an annual risk analysis regarding the central government's guarantee and lending programmes. The report for 2017 (ref. no. Fi2017/01288/BATOT) shows that the risk of large losses remains low.

### **Composition of the guarantee portfolio**

A summary of issued guarantees and pledges is shown in table 3.7. The central government guarantee portfolio amounted to SEK 2 043 billion at the end of 2016. The largest commitments were the deposit insurance scheme (SEK 1 666 billion), credit guarantees (SEK 233 billion) and guarantees for capital injections (SEK 136 billion). Pension guarantees and other guarantees amounted to a total of SEK 9 billion.

**Table 3.7 Central government guarantee commitments and pledges, 31 December 2016**

SEK billions

	Guarantees	Pledges	Expenditure area
<b>Deposit insurance scheme<sup>1</sup></b>	<b>1 666.0</b>		2 Economy and financial administration
<b>Investor compensation<sup>2</sup></b>			2 Economy and financial administration
<b>Credit guarantees</b>	<b>232.8</b>	<b>63.7</b>	
of which			
Bank guarantees	0.0		2 Economy and financial administration
Export credit guarantees <sup>3</sup>	201.5	63.7	24 Industry and trade
Credit guarantees in foreign aid	1.1	0.0	7 International development cooperation
Independent guarantees	3.9	0.0	7 International development cooperation
Infrastructure	18.6		22 Transport and communications
Housing credits	2.0		18 Planning, housing provision, construction and consumer policy
International commitments	5.8		2 Economy and financial administration 7 International development cooperation 22 Transport and communications
Other	0.0		1 Governance 6 Defence and contingency measures 23 Land-based industries, rural areas and food
<b>Guarantees for capital injections</b>	<b>135.9</b>		
of which			
Capital cover guarantees <sup>4</sup>	1.3		22 Transport and communications
Subscription guarantees	0.4		22 Transport and communications
Guarantee capital	134.1		2 Economy and financial administration 7 International development cooperation
<b>Pension guarantees<sup>5</sup></b>	<b>8.5</b>		2 Economy and financial administration 16 Education and university research 22 Transport and communications 24 Industry and trade
<b>Other guarantees</b>	<b>0.0</b>		16 Education and university research 22 Transport and communications
<b>Total</b>	<b>2 043.2</b>	<b>63.7</b>	

<sup>1</sup> The commitment for the deposit insurance scheme is as of 31 December 2016 (previously reported according to a different principle).

<sup>2</sup> The size of the central government commitment for investor compensation cannot be stated.

<sup>3</sup> Refers to both restricted and unrestricted pledges.

<sup>4</sup> In addition to the reported amount, there is one capital cover guarantee for which no value has been estimated because the guarantee is not limited in terms of time and amount.

<sup>5</sup> The commitment for pension guarantees is as of 31 December 2015.

Source: Swedish National Debt Office.

### Anticipated losses in the central government's guarantee portfolio

To measure the risk of the guarantee commitments that are managed according to the guarantee model, the authorities issuing these guarantees continuously assess the anticipated losses. The authorities make provisions for the anticipated losses on the debt side of their balance sheets.

To assess how well the guarantee scheme is performing, an analysis is made of the relationship between the provisions for anticipated losses and assets (in the form of paid-in and future guarantee fees and administrative costs). The comparison shows that for the portion of the guarantee portfolio managed under the guarantee model, the provisions for anticipated losses are amply covered by the charges already paid in (reported as guarantee assets in table 3.8). The net present value of future charges are in addition to this. At present, the guarantee operations of the Export Credits Guarantee Board (EKN) account for a significant portion of the surplus.

**Table 3.8 Comparison between provisions for anticipated losses and assets in the guarantee operations as of 31 December 2016 (excluding the deposit insurance scheme, investor compensation scheme, bank guarantee programme and guarantee capital)**

SEK billions

<b>Government agency</b>	<b>Guarantee commitment</b>	<b>Provisions for expected costs</b>	<b>Guarantee assets</b>	<b>Net present value of future charges</b>
Swedish National Debt Office	33.3	0.6	1.3	0.0
The Swedish Export Credits Guarantee Board	192.5	12.0	29.6	4.6
Swedish International Development Cooperation Agency	5.0	0.3	2.2	0.0
BOVERKET - Swedish National Board of Housing, Building and Planning	2.0	0.0	2.3	-
<b>Total</b>	<b>232.8</b>	<b>12.9</b>	<b>35.3</b>	<b>4.7</b>

Source: Swedish National Debt Office.

## 4 Alternative scenarios and comparison with Sweden's Convergence Programme 2016

### 4.1 Alternative scenarios

Forecasts of economic development are associated with considerable uncertainty. In order to shed light on this uncertainty, this section discusses factors that could lead to a development that differs markedly from the forecast.

#### International developments are uncertain

Sweden is a small, open economy and developments in the rest of the world have a strong impact on Swedish growth. As in recent years, there is now considerable uncertainty about future developments in the rest of the world.

Political uncertainty is high in several countries. Several general elections will be held in Europe in 2017, including in France and Germany. The heightened uncertainty is reflected, for example, in larger spreads between government bonds in various parts of the EU in recent times. At the same time, the economic development may strengthen if political uncertainty subsides and businesses and households in the rest of the world become more optimistic about the future than assumed. Exit negotiations between the EU and the United Kingdom are expected to begin in spring 2017. Depending upon how the negotiations progress, this may entail economic development in the United Kingdom that is different to that assumed in the forecast, which may by extension affect other countries that are closely linked to the British economy. The content of the US government's economic policy has not yet been clarified, but seems oriented towards a more restrictive trade and migration policy. Increased protectionism around the world may lead to weaker development of world trade.

Greater turbulence in the financial markets and deteriorating confidence in economic development among businesses and households could also result in a weaker international development than assumed in the Government's forecast. Market uncertainty prevails concerning the stability of the European banking sector, as several banks are showing weak profitability and have a large share of non-performing loans. There is, in addition, worry about the development of public debt in Greece and the country's capacity to implement its adjustment programme. Moreover, low interest rates have contributed to rising asset prices. A change in expectations for the monetary policy could lead to a rapid and sharp correction of asset prices, which could lead to lower consumption and declining investments.

Investment growth in the euro area may rise faster than is assumed in this forecast. The investment trend has thus far been subdued, but growth in construction investments has risen and bank lending to households and non-financial corporations has increased. Rising business confidence, rising capacity utilisation in the manufacturing sector and a sustained expansionary monetary policy provide conditions for a stronger investment trend. This would benefit Swedish export industry.

Growth in the emerging economies is another significant uncertainty factor. Stronger development in China and many other emerging economies would lead to higher Swedish export growth, but growth in China could also decelerate faster than expected. The political leadership in China has set a goal for more sustainable economic growth. Growth is to be driven by consumption to a greater extent, from having previously been dominated by exports and investments. Uncertainty about whether China will succeed at such a transition, without a significant slowdown in its economy, constitutes an uncertainty for global economic development. Vulnerabilities in the financial system, including rapidly

increasing private and public debt, may further depress Chinese economic development.

Geopolitical unease is also causing uncertainty about economic development. This is linked, among else, to conflicts in the Middle East, with large refugee flows to Europe. If geopolitical developments worsen, global economic recovery may be constrained.

### **Uncertainty over domestic developments**

There are several uncertainty factors as regards Swedish economic development. One such is high and increasing household indebtedness and rising house prices. Highly indebted households might cut back on consumption if house prices were to dramatically fall, which by extension could have negative impact on growth and employment. An amortisation requirement was implemented on 1 June 2016 aimed at countering macroeconomic and financial stability risks associated with household indebtedness. The Government and relevant agencies are continuing to carefully monitor the situation and are prepared to take further measures if so required.

Investments in buildings and constructions, which have grown faster than expected since 2014, could continue to develop more strongly than expected. Demand for housing remains high in Sweden, while building firms, according to the Economic Tendency Survey, consider scarcity of labour the main barrier to increased construction. A higher supply of labour could contribute to stronger than estimated development in construction investments.

Resource utilisation in the Swedish economy has successively risen. In the past, rising resource utilisation has normally been reflected in a rising rate of wage increases, but wage growth has thus far been weaker than anticipated. The assessment of resource utilisation is inherently uncertain, but it is also difficult to determine how quickly resource utilisation will affect the wage growth rate and, by extension, inflation.

The forecast for unemployment is also uncertain. This is due, among else, to uncertainty as to the extent and how fast implemented reforms affect the behaviour of individuals and thus the labour market. As well, it is difficult to assess the number of people who will apply for asylum in upcoming years, as well as the rate at which arrivals will secure jobs.

Recruitment needs in the local government sector, which is reporting a personnel shortage, remain large in the light of the demographic trend, with more children and elderly in the population. If municipalities and county councils are unable to recruit sufficient staff, the development of public consumption in 2017 might be weaker than forecast.

### **Alternative Scenario 1: EU banking system in crisis**

The stability of parts of the European banking system is uncertain. The Italian banks are particularly vulnerable, with low capital adequacy ratios and a large proportion of non-performing loans. The Italian government decided in December 2016 to provide financial support to one of the largest banks. Some banks in Germany are also suffering from weak profitability. More strained financial conditions may force banks to reduce lending, which has adverse impact on household consumption and business investment. If, in addition, investors lose confidence in the European banks, this could lead to much greater stress on the financial markets, which would make borrowing more difficult for the banks. As the European banks are closely integrated, problems in one part of the banking sector can spread to others.

This alternative scenario assumes a slowdown in growth in the EU due to the instability in the European banking sector. The effects of reduced lending and heightened financial stress include a decline in investments. GDP growth in the euro area is assumed to be on average 1.1 per cent 2018–2019, which should be compared to 1.6 per cent in the baseline scenario. Trade-weighted GDP is consequently lower than in the baseline scenario (see table 4.1). Lower world demand leads to weaker development of Swedish exports, which constrains GDP growth, resulting in lower resource utilisation (see table 4.1). Consequently, inflation is weaker than in the baseline scenario and the Riksbank raises the repo rate at a slower pace. Overall, GDP growth is assessed as lower in 2018 and 2019 compared with the baseline scenario, with the main effect in 2018. Due to lower demand in the economy, employment growth is weaker and unemployment rises. Thereafter, export growth is expected to accelerate in pace with rising demand in the rest of the world, while household consumption and investments benefit from a more expansionary monetary policy. As a result, GDP rises faster than in the baseline scenario and the GDP gap is closed in 2020. This also contributes to higher employment growth and to unemployment receding to 6.2 per cent in 2020.

As the lower GDP growth is primarily a result of weaker exports, the effects on the general government finances are relatively limited. General government net lending deteriorates slightly, at most by about 0.2 percentage points, compared with the baseline scenario. Above all, the wage bill is expected to decrease due to both fewer hours worked and lower wage levels.

### **Alternative Scenario 2: Stronger investment activity in the euro area**

The euro area is Sweden's most important export market and economic developments in the area are thus highly significant to Swedish growth. This alternative scenario describes the effects of a stronger investment-led recovery in the euro area than assumed in the baseline scenario.

Investment activity has been subdued in the euro area for a long time. The investment share of GDP is still substantially lower than before the financial crisis in 2009. At the same time, resource utilisation in the manufacturing sector has risen and there is pent-up investment demand. Indicators further suggest rising business confidence and bank lending to households and non-financial corporations has increased in the euro area. The European Central Bank has pursued an expansionary monetary policy and interest rates are low, which sets the conditions for increased investments. This could lead to a stronger investment-led recovery in the euro area than assumed in the baseline scenario.

In this alternative scenario, GDP growth in the euro area is assumed to be on average 2.1 per cent 2017–2018, compared to 1.7 per cent in the baseline scenario. A stronger recovery in the euro area would entail a higher Swedish export growth. In order to respond to higher demand in the rest of the world, Swedish companies will also increase their investments to some extent. Both factors lead to higher GDP growth and strained resource utilisation in the Swedish economy (see table 4.1). The higher resource utilisation creates greater scope for companies to raise their prices and inflation rises compared to the baseline scenario. Consequently, the Riksbank raises interest rates at a faster pace. As a result of higher growth in the Swedish economy, employment grows faster and unemployment falls to nearly 6 per cent in 2018. Due to the strained resource utilisation combined with growth in the euro area gradually returning to more normal levels, GDP growth is somewhat lower in 2019 and 2020 and resource utilisation is balanced in 2020.

**Table 4.1 Alternative scenarios: 1 EU banking system in crisis and 2 Stronger investment activity in the euro area**

Forecast according to baseline scenario in bold for each variable. Based on proposed and implemented reforms.  
Percentage change unless otherwise indicated.

	2017	2018	2019	2020
<b>GDP<sup>1</sup></b>	<b>2.9</b>	<b>2.2</b>	<b>2.0</b>	<b>2.2</b>
Alternative Scenario 1:	2.9	1.7	1.9	2.8
Alternative Scenario 2:	3.3	2.4	1.6	2.0
<b>Exports<sup>1</sup></b>	<b>4.8</b>	<b>4.0</b>	<b>3.6</b>	<b>3.6</b>
Alternative Scenario 1:	4.8	3.0	3.1	4.8
Alternative Scenario 2:	5.8	4.5	2.8	3.1
<b>GDP gap<sup>2</sup></b>	<b>0.5</b>	<b>0.4</b>	<b>0.1</b>	<b>0.0</b>
Alternative Scenario 1:	0.5	-0.1	-0.5	0.0
Alternative Scenario 2:	0.9	1.0	0.3	0.0
<b>Unemployment<sup>3</sup></b>	<b>6.6</b>	<b>6.4</b>	<b>6.3</b>	<b>6.2</b>
Alternative Scenario 1:	6.6	6.7	6.6	6.2
Alternative Scenario 2:	6.5	6.1	6.2	6.2
<b>Repo rate<sup>4</sup></b>	<b>-0.5</b>	<b>-0.3</b>	<b>0.2</b>	<b>0.9</b>
Alternative Scenario 1:	-0.5	-0.5	0.0	0.9
Alternative Scenario 2:	-0.2	0.3	0.7	0.9
<b>World GDP, KIX-weighted<sup>5</sup></b>	<b>2.5</b>	<b>2.4</b>	<b>2.4</b>	<b>2.4</b>
Alternative Scenario 1:	2.5	1.8	2.1	3.0
Alternative Scenario 2:	3.1	2.8	1.8	2.0
<b>Net lending<sup>6</sup></b>	<b>0.3</b>	<b>0.6</b>	<b>1.4</b>	<b>2.1</b>
Alternative Scenario 1:	0.3	0.4	1.3	2.1
Alternative Scenario 2:	0.3	0.7	1.4	2.1

<sup>1</sup>Calendar-adjusted values.

<sup>2</sup>The difference between actual and potential GDP as a percentage of potential GDP.

<sup>3</sup>15–74 years, percentage of labour force.

<sup>4</sup>Annual average.

<sup>5</sup>GDP forecasts weighted with KIX weights, a measure of Swedish foreign trade with various countries.

<sup>6</sup>In the general government sector. Per cent of GDP.

Source: Own calculations.

The effects on the general government finances are also relatively limited in this alternative scenario. General government net lending improves marginally, in part due to higher tax revenues arising from stronger growth in the wage bill.

## 4.2 Comparison with the 2016 Convergence Programme

GDP growth for 2016 has been revised down in relation to last year's programme. Weaker total consumption was the main reason for the downward revision. Growth is expected to be higher in both 2017 and 2018 compared to last year's Convergence Programme. This is based on the assessment that exports and investments will make a stronger contribution to demand growth. General government consumption is now expected to be weaker than in the last Convergence Programme. The forecast concerning asylum applications has been revised down, leading to reduced expenditure for migration and integration.

**Table 4.2 Comparison with the 2016 Convergence Programme**

Annual percentage change in volume and per cent of GDP

	2016	2017	2018	2019	2020
<b>GDP, percentage change in volume</b>					
Convergence Programme 2016	3.8	2.2	1.8	2.1	--
Convergence Programme 2017	3.3	2.6	2.1	2.0	2.5
Difference, percentage points	-0.5	0.4	0.3	-0.1	--
<b>General government net lending, per cent of GDP</b>					
Convergence Programme 2016	-0.4	-0.7	-0.4	0.1	--
Convergence Programme 2017	0.9	0.3	0.6	1.4	2.1
Difference, percentage points	1.3	1.0	1.0	1.3	--
<b>Consolidated gross debt, per cent of GDP</b>					
Convergence Programme 2016	42.5	41.1	40.3	39.1	--
Convergence Programme 2017	41.6	39.5	37.3	34.7	31.4
Difference, percentage points	-0.5	-1.2	-2.6	-4.0	--

Sources: Statistics Sweden and own calculations.

## 5 Long-term sustainability of the fiscal policy

This section assesses whether fiscal policy is sustainable in the long-term. The aim of the analysis is to identify and evaluate, in ample time, factors and trends that may affect sustainability so that measures can be taken at an early stage to assure confidence in the fiscal policy. If the necessary changes are postponed, the problems are usually exacerbated and the change process becomes more difficult, so that more extensive measures must be implemented at a later stage and often in more disorganised forms.

Experience shows that an unsustainable fiscal policy can lead to serious interventions in tax-funded operations, resulting in high socio-economic costs. As a result of large, growing government debts, several crisis-hit countries have been forced to adopt emergency crisis measures instead of implementing reforms that promote stable, long-term growth. Strong general government finances create the prerequisites for constructive crisis management.

Sweden is facing several changes that may subject the economy to stresses and which therefore require careful monitoring. A rising average life expectancy is positive in and of itself, but an ageing population may also present challenges through higher public expenditure for long-term care and healthcare services. In addition, large numbers of mainly younger people have migrated to Sweden in recent years; among else, this is increasing the need for labour market training and places in compulsory and upper secondary school as well as in higher education. Over the long term, positive net migration makes it easier to manage the effects of a higher average life expectancy on the general government finances if the majority of arrivals enter employment. The pressure on

the general government finances will be reduced by extending working life in pace with increases in average life expectancy, increasing employment in groups where the employment rate is lower, improving public health and producing tax-funded services with lower resource inputs.

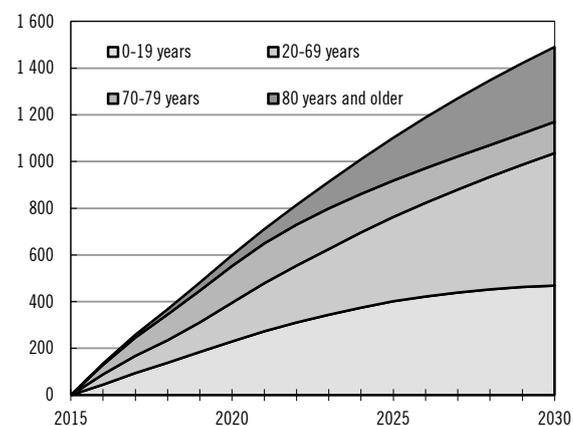
## 5.1 Demographics and the general government finances

**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. This assessment is based on the population forecast issued by Statistics Sweden in October 2016, which updates the regular forecast from May 2016. The update takes into account the Migration Agency's migration forecast from October 2016. The population, which was nearly 10 million at the end of 2016, is expected to grow to around 11 million by the end of 2026 and around 11.5 million by 2033. This is an average annual increase of around 100 000 people, or almost 1.0 per cent per year, which is a high growth rate by historical comparison. Children and young people under the age of 20 account for around a third of this increase and the working-age (20–69) population for almost 40 per cent. The remainder of the increase is in the 70+ age bracket.

### Chart 5.1 Change in population compared to 2015

Thousands of persons



Source: Statistics Sweden.

Chart 5.1 shows that the numbers of children and youth and people of working age are expected to rise unusually quickly until 2020, as inward migration is expected to be particularly high from an historical perspective, while the oldest segment of the population, people aged 80+, will gradually account for an increasing share of population growth after 2025. The latter age group is expected to grow very rapidly, at nearly 30 000 people a year, during the second half of the 2020s. By 2030, around 470 000 more children and youth are expected in Sweden

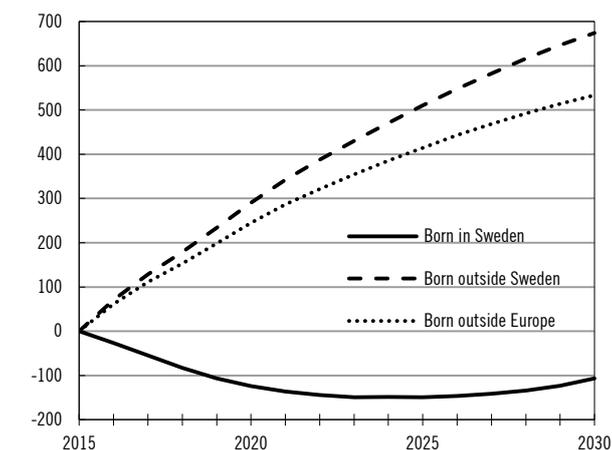
compared to 2015, around 570 000 more people aged 20–69 and almost 455 000 more people aged 70+. Of the latter, around 135 000 will be in the 70–79 age bracket and more than 320 000 will be 80 years of age or older.

As a result of this development, the number of persons aged 70+ per 100 persons of working age (20–69) will increase from around 22 in 2015 to almost 27 in 2030. The number of persons aged 80+ will increase from around 8 per 100 persons of working age in 2015 to more than 12 in 2030. During the same period, the number of children and youth will increase from around 36 to almost 40 per 100 persons of working age. In the years leading up to 2022, children and youth are expected to account for the highest increase in relation to the working age population, but the oldest segment of the population, people aged 80+, will increase rapidly after 2022. Thus, it is primarily the production of childcare and education that will need to increase in the next few years, while demand for long-term care and healthcare will increase faster after 2022.

The composition of the population is also going to change as regards country of origin. Chart 5.2 shows that the number of people aged 20–69 who were born in Sweden will probably decline by about 150 000 by the mid 2020s. By 2030, there will be an estimated 100 000 fewer people aged 20–69 who were born in Sweden than there were in 2015. This forecast is relatively certain as it is not dependent on the birth rate. In addition, changes in mortality and the tendency to migrate are relatively small in this age group.

### Chart 5.2. Population aged 20–69

Change compared to 2015, thousands of persons



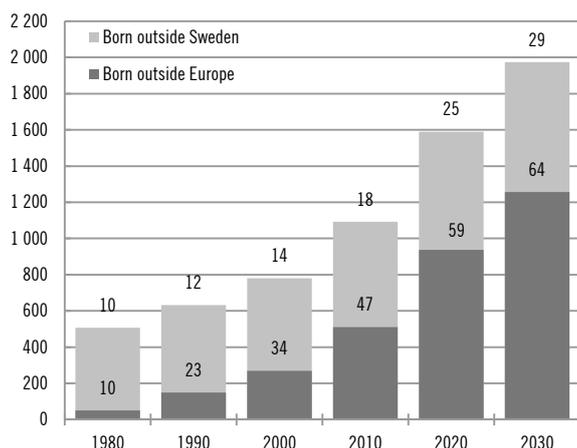
Source: Statistics Sweden.

Changes in the number of people born abroad are considerably more difficult to estimate because inward and outward migration among people born abroad varies widely. One conclusion, however, is that net migration must remain positive for the next 15 years to prevent a decline in the working age population. Chart 5.2 also shows that the majority of net inward migration is expected to comprise people born outside Europe, which implies 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 Europe, mainly our neighbouring countries. In 2010, the number of people born abroad in this age group had increased to around 1.1 million, about 18 per cent of the total population, and of these, more than 500 000 people (around 47 per cent) were born outside Europe. See chart 5.3.

### Chart 5.3 Population aged 20–69 born abroad

Thousands of persons, per cent of the entire population aged 20–69 and per cent of population aged 20–69 born abroad



Note: The values above the bars state the proportion of the population made up of people born abroad, aged 20–69. The values in the bars state the proportion of people born abroad who were born outside Europe. Source: Statistics Sweden.

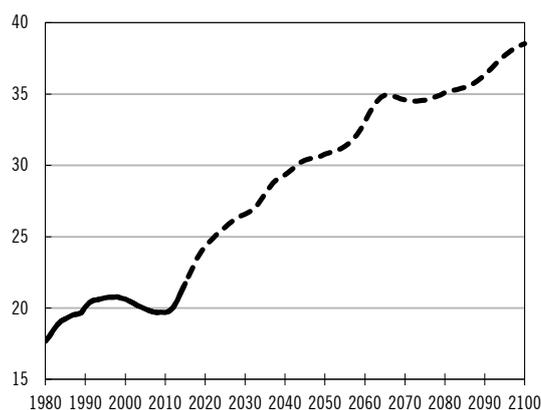
According to the forecast, the number of people born abroad aged 20–69 is expected to increase to about 1.6 million in 2020 and slightly less than 2 million in 2030. The proportion of people in this group who were born outside Europe is also expected to continue rising.

### The average age of the population is rising

The proportion of older people in the population is rising. Chart 5.4 illustrates this development with a dependency ratio, which is defined as the number of persons aged 70 and older per 100 persons in the 20–69 age bracket. The proportion of older people increased only marginally from the mid-1980s to about 2010 and then declined during the first decade of the 2000s. After 2010, the proportion of older people in the population grew faster than the working-age population. This trend is expected to continue with only isolated interruptions for the rest of this century. The number of older persons per 100 persons in the 20–69 age bracket is expected to increase to roughly 30 by about 2044 and about 35 by 2065.

### Chart 5.4 Dependency ratios

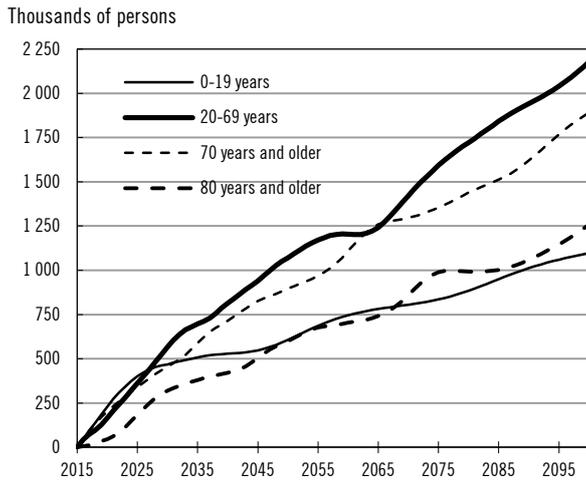
Number of persons aged 70+ per hundred persons aged 20–69



Sources: Statistics Sweden and own calculations.

Chart 5.5 shows how the population in various age brackets changes from 2015 over the long term. Although the youngest population group is expected to grow rapidly in the next few years, over the somewhat longer term the fastest growth is in the older population. The effects of changes in the population age composition on the general government finances are illustrated by the impact of an average individual on general government revenue and expenditure at various ages (see chart 5.6). Chart 5.6 shows that the net contribution is negative up to about age 25. General government expenditure on people in this age group primarily consists of childcare and education. The net contribution of people in the 26–63 age bracket is positive because individuals' average payments of taxes and charges are higher than the cost of transfer payments and welfare services in this age bracket. At around the age of 63, net contributions become negative once again and thereafter decline rapidly when many choose to retire. Expenditure, especially for long-term care and healthcare, also rises with age. Towards the end of life, expenditure increases rapidly. For an average individual who is older than 90, the negative net contribution is more than SEK 400 000 per year. The total negative contribution is, however, considerably higher among the “younger elderly” since relatively few people live to be so old.

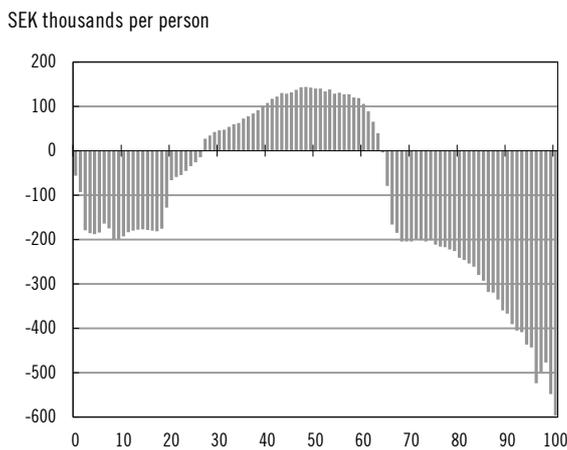
**Chart 5.5 Change in population compared to 2015**



Source: Statistics Sweden.

The general government funding challenges presented by demographic changes become clear if the population change in chart 5.5 is combined with the general government net contribution in chart 5.6. The expected population increase largely corresponds to the age groups in which expenditure on services is substantially higher than tax payments. How the general government finances develop is, however, also dependent on how the financial exchange with the general government changes in various age groups. For example, improved health and an increased labour supply could reduce the negative net contribution in the higher age brackets.

**Chart 5.6 Average net contribution to the general government sector for people of various ages in 2014**



Note: A negative net contribution means that expenditure on tax-funded services and transfer payments is greater than the taxes paid in for an average individual.

Sources: Statistics Sweden and own calculations.

## 5.2 What is meant by sustainable fiscal policy?

If the fiscal policy is sustainable, the rules that determine the development of general government revenue and expenditure can remain unchanged over the long term without causing an undesirable development of general government debt. In order to investigate whether this is the case, the concept of undesirable development of general government debt must be defined, which can be done in several different ways. Thereafter, a number of long-term projections of general government revenue and expenditure are made. The projections estimate how revenue and expenditure would develop if the future population were given access to tax-funded welfare services on the same terms as today, with no changes in tax rates.

The Commission applies several different definitions of sustainability and has developed the S1 and S2 indicators, which show the size of a permanent adjustment to net lending that is required for general government debt to develop in the desired manner. In order to facilitate comparisons with other sustainability assessments, these indicators are calculated and reported for the scenarios presented in this section. The indicators are calculated based on the situation of the general government finances in 2018 because this is the first year that the Government can propose a new central government budget.

The first indicator, S1, is a measure of the size of a permanent adjustment of the fiscal policy, expressed as a percentage of GDP, that would be required in 2018 for general government consolidated gross debt (Maastricht debt) to correspond to 50 per cent of GDP in 2030. The reference value has been set to 60 per cent of GDP because debt is not permitted to exceed this level in accordance with the rules of the Stability and Growth Pact. Swedish gross debt amounted to approximately 42 per cent of GDP at the end of 2016 and there was thus a relatively large margin of safety to this level of debt. This means that the S1 indicator for Sweden is normally negative, i.e., a large and permanent budgetary weakening would be required in 2018 for the gross debt to rise to 60 per cent of GDP by 2030. An indicator value below zero should not be interpreted to mean that there is scope for budgetary weakening. The indicator is only a key figure that enables comparisons between different countries and of various assumptions about developments to 2030.

The European Commission's other sustainability indicator, S2, is a more theoretical measure that shows how much the budget must be permanently strengthened or weakened for the general government net debt as a proportion of GDP to be stabilised over a very long horizon. The indicator is based on the principle that the current public debt and the discounted value of future expenditure should be covered by the discounted value of all future government revenue. Long-term stabilisation of net debt is a required criterion for the fiscal policy to be considered sustainable. However, whether or not fiscal policy is

genuinely sustainable cannot be determined solely on the basis of the S2 indicator.

In the first place, calculation of the indicator is based on public balances very far into the future, so far that there is in practice no meaningful information available for assessing the balance level. Net lending is therefore usually assumed unchanged as a proportion of GDP after the end year of the calculation, which is 2100 in the calculations presented here. The value of the S2 indicator often depends largely on this particular assumption.

Secondly, an adjustment of the fiscal policy in line with the S2 indicator does not guarantee that debt will be stabilised at a level compatible with more short-term criteria for fiscal policy sustainability. General government net debt may very well be stabilised at 100 or 200 per cent of GDP over the long term, even if S2 is zero. A budgetary adjustment in line with the S2 indicator thus means only that the net financial position is stable as a proportion of GDP over the long time, but says nothing about the level of the net financial position. The indicator value is therefore only one of several inputs in an assessment of the circumstances under which the current fiscal policy is sustainable over the long term. That the indicator value may be dependent on the net lending balance calculated for years that are far into the future is an obvious weakness. In general, it can be said that the higher the value of S2 in absolute terms, and the earlier in the projection an imbalance arises, the higher is the probability that fiscal policy will need to be revised.

In a crisis, net lending often deteriorates rapidly for reasons other than an increase in expenditure for normal commitments. One example is the support to the banking system in crisis that was provided by Sweden in the early 1990s and in Spain and Ireland in 2008. Although financial institutions now pay contributions to manage future crises of this kind, the income from the charges is not placed in any special fund. The revenue is instead used to reduce the central government's borrowing requirement and thus central government debt. When central government debt is low in relation to GDP, there is a financial buffer to which the central government has access in a crisis. The fiscal policy framework and the recently proposed debt anchor are aimed at - maintaining a level of debt that will provide good protection during the next crisis. Future crises are, however, not considered in the assessment of the long-term sustainability of the fiscal policy. The assessments are instead based on the notion that the economy will develop according to trends with no disruptions, in line with the calculation assumptions stated.

### **5.3 A scenario for long-term development**

This section discusses a scenario based on the demographic changes reported in the latest population forecast from Statistics Sweden. It should be emphasised that the scenario is not intended to illustrate the

most likely development. Instead, the ambition is to reflect a development involving no change to policy and no change in behaviour with regard to, for example, labour force participation and use of tax-funded services. The ambition is to identify and analyse future challenges by studying the scope of adjustments to current rules concerning general government revenues and expenditures required to achieve long-term balance in the general government finances. Alternative scenarios based on various assumptions make it possible to shed light on which factors strengthen the long-term sustainability of the fiscal policy and which weaken it.

The calculations are based on the assumption that the current level of public commitment will be maintained in the future, while individuals' working hours and use of various welfare systems remain constant. This means, for example, that if people in the future want a higher standard of tax-funded welfare services or want more leisure time, which is not at all unlikely if the GDP continues to grow, this is not something that should be cause for higher general government net lending today. Future generations will have to weigh the benefits of a higher standard of welfare services against the benefits of more leisure time, just as we do today, and strike a reasonable balance between work and taxes on the one hand and leisure and the level of general government services on the other.

### **The calculations are based on a number of assumptions about future developments**

The calculations in this section are based on the assessment of Swedish economic development through the end of 2020 presented in section 3.2. In 2016, the primary balance in the general government sector, i.e., net lending excluding capital income and capital expenditure, was more or less in balance; that is, primary revenues were equal to primary expenditures. A move towards balanced resource utilisation in the economy is estimated in 2017–2020, with high employment and moderate declines in unemployment, while no further unfunded reforms are assumed to be implemented after 2017, beyond that already decreed, proposed or announced, which will markedly improve general government net lending.

Productivity in the business sector is assumed to increase by 2.2 per cent in the long term. However, productivity in tax-funded services, regardless of whether delivered by public or private sector providers, is assumed to be constant. This difference in the productivity trend, along with an assumption that wage growth is identical across the entire economy, leads to a faster increase in the costs of tax-funded production than in the business sector.

In this scenario, people's labour market behaviour is assumed to remain largely unchanged from 2020. An average woman or man of a certain age from one of four regions of origin is assumed to work just as

much in the future as they do today. The assumption is that labour force participation, unemployment and average working hours for people of different ages, countries of origin and genders will remain constant after 2020, other than that unemployment is assumed to decline somewhat as more people born outside Europe become established in the labour market.

The scenario is also based on the assumption that the general government commitment remains unchanged from 2020. This means that tax rates are kept at the same level as in 2020, i.e., the tax share of the tax base is constant. It is assumed that the standard per user for tax-funded activities is the same, expressed as an unchanged resource input and utilisation rate in all age brackets. For example, it is assumed that a 90-year-old in the future will receive the same number of hours of geriatric care as a 90-year-old does today, and that the proportion of 80-year-olds in special housing will be the same as today. Because no change is assumed in productivity in the production of tax-funded services, general government consumption will develop at the same rate as the number of hours worked. The compensation rate in the transfer payment system is also unchanged, so that transfer payments per individual develop in parity with the hourly wages of those in employment. This means that transfer payments that are, in accordance with the regulations, nominally fixed or only track the development of prices are also assumed to increase in line with average wages from 2021.

The general government sector also owns substantial real assets, buildings, and infrastructure such as roads, systems for transporting water, sewerage, electricity, etc., which are ageing and must be maintained and improved in pace with population growth and GDP growth. This is taken into account in the calculations through the use of a portion of general government revenues for investments, repairs and maintenance. These expenditures increase so that the general government's real capital volume can grow in a balanced manner in relation to the economy as a whole and the need for buildings, machinery, etc., in the general government sector.

The demographic trend primarily has an impact on expenditure for welfare services that are the responsibility of municipalities and county councils. However, the projection focuses on the general government commitment in its entirety and the general government is therefore regarded as a combined whole. One key assumption is that the central government has the overall responsibility for financing tax-funded welfare. Consequently, central government grants are adjusted in the calculations so that the requirement for sound financial management established in the Swedish Local Government Act (1991:900) is met.

## **Developments to 2030**

General government revenue and expenditure are projected over a very long period of time in the long-term scenario. The end year of the projection is 2100. Naturally, there is a great deal of uncertainty concerning developments over a horizon of more than 80 years. As previously mentioned, the long-term development scenario should not be regarded as a forecast of the most likely development, but rather as an analysis of the consequences of the assumptions made.

However, the calculations are based on Statistics Sweden's population forecast, which should be able to capture the main development over the medium-term horizon. The annual changes in the population are, in the absence of major migration flows, relatively small compared to the size of the population. Most of the people who will be living in Sweden in 15 years are already here. There may thus be reason to look more closely at the development from a somewhat shorter-term perspective in an attempt to pick up some of the changes that will, with relatively high probability, characterise the next 15 years. An in-depth analysis of developments up to 2030, the reference year for the S1 indicator, is therefore presented in this section.

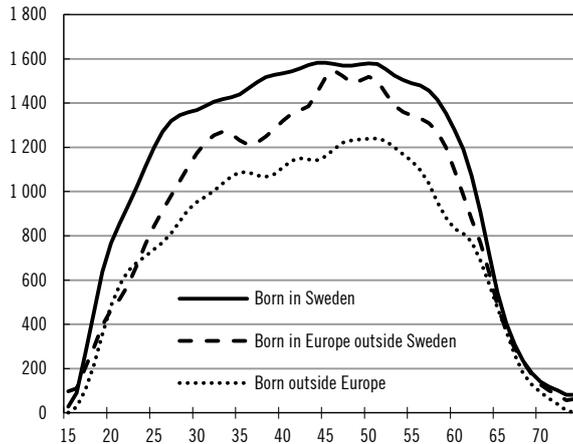
### **Employment is likely to grow at a slower rate than the population**

The change in the size and composition of the working-age population affects the labour supply. As shown in chart 5.7, the labour supply and employment vary depending upon age and country of origin. In 2016, the labour supply was on average higher for people born in Sweden than for people born abroad. While a person born in Sweden works more than 1 500 hours per year on average between the ages of 38 and 54, the corresponding figures are around 1 400 hours for people born in Europe, but outside Sweden, and slightly below 1 200 hours for people born outside Europe. The difference in average working hours is found in all age brackets, but declines with the number of years of residency in Sweden.

Calculation of the long-term employment trend is based on the medium-term forecast to 2020. After that year, the forecast is extended with a projection based on the assumption of no change in the labour supply and employment per person for people of various ages, genders and countries of origin. The results are shown in chart 5.9, which shows that the number of people employed and the number of hours worked will increase slightly faster than the number of people in the labour force over the next 15 years and that the upturn is expected to be somewhat faster in 2016–2020 than in subsequent years.

### Chart 5.7 Hours worked per person and by age in 2016

Hours worked per year (5-year average)

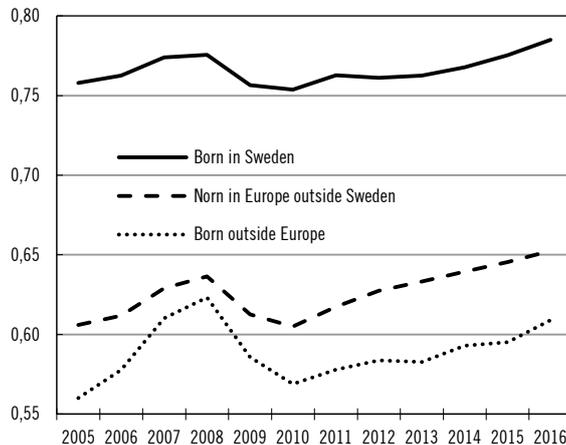


Source: Labour Force Survey, Statistics Sweden.

This development is a continuation of a clear trend towards a higher employment rate in the population in recent years, see chart 5.8. The employment rate has risen particularly rapidly among people born abroad. Compared with 2005, the employment rate increased to 2016 by about 3 percentage points overall and by about 5 percentage points for people born abroad. During the same period, hours worked per person of working age, 20–69, increased by about 4 per cent overall and by a full 10 per cent for people born outside Europe.

### Chart 5.8 Employment rate

Proportion of the population aged 20–69 who are employed



Source: Statistics Sweden's Labour Force Survey.

As a result of faster growth in employment than in the labour supply over the next few years, unemployment falls from 6.9 per cent in 2016 to 6.2 per cent in 2020. In the demographic projection, unemployment rises again slightly after 2020 because the working-age population grows primarily in groups where unemployment is currently higher than the average. Unemployment increases even though lower inward migration leads to an increase in the average length of stay in Sweden among people born abroad, which has a positive effect on the employment rate.

Overall, the number of people in the labour force, the number of people employed and hours worked increase by around 9 per cent between 2016 and 2030. The total population increases by 14 per cent in the same period. By comparison, the labour supply increased by around 14 per cent between 2002 and 2016, while the number of people employed and hours worked increased by around 13 per cent during the same period.

**Figure 5.9 Labour force, hours worked and employment**

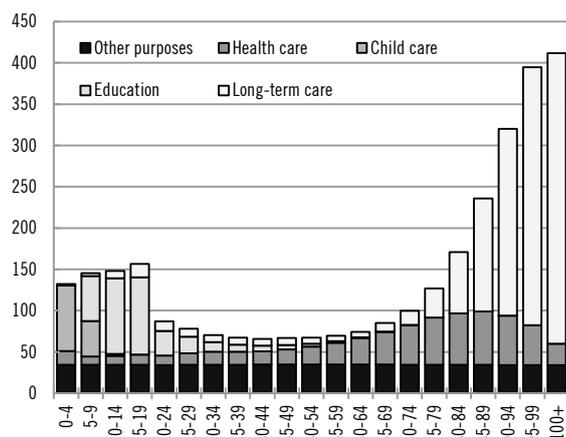


### Demand for tax-funded welfare services increases

As previously mentioned, the age distribution of the population is highly relevant to general government expenditure. Chart 5.10 shows how expenditure for general government consumption, i.e., healthcare, education, long-term care, etc., is distributed over the life course. Early in life, relatively large resources are used for childcare and education. When a person reaches the approximate age of 20, use of tax-funded services declines. Towards the end of life, use of services increases rapidly, primarily for healthcare and long-term care. When there are more children and older people in the population, general government expenditure to produce these services increases.

**Chart 5.10 General government consumption per capita by age group, 2014**

SEK thousands

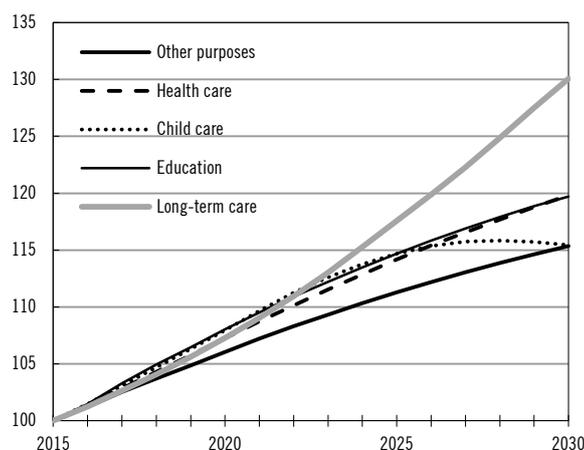


Sources: Statistics Sweden and own calculations.

The expenditure structure shown in chart 5.10, combined with the anticipated population growth, gives rise to an increase in consumption of these tax-funded services as shown in chart 5.11. The chart shows that the resource requirement increases most rapidly within childcare and education up to about 2022, assuming no change in standard per user. However, from a somewhat longer perspective, the need for long-term care will increase faster. Up to 2022, the need for long-term care increases by around 11 per cent and up to 2030 by just over 30 per cent compared with 2015. Demand for collectively consumed services, i.e., services that are not consumed by individuals, such as the justice system, defence and public administration, is assumed to increase in pace with the entire population and to be around 15 per cent higher in 2030 than in 2015.

**Chart 5.11 General government consumption by purpose**

Volume index 2015 = 100



Source: Own calculations.

Expenditure for general government consumption as a proportion of GDP increases by around 0.6 percentage points between 2020 and 2030 (see table 5.11). Expenditures for childcare increase at the same rate as

GDP, assuming an unchanged utilisation rate and standard per user, while expenditures for education, healthcare and, above all, long-term care, rise faster. Expenditures for collectively consumed services also increase somewhat faster than GDP as the population grows faster than employment.

### Net lending and debt

The period of 2020–2030 is characterised by demographic changes that increase general government primary expenditure (i.e., excluding interest expenditure) as a proportion of GDP, assuming no change in commitment. See chart 5.12. The primary balance deteriorates between 2020 and 2030 by around 0.7 per cent of GDP as a result of the large cohort born in the 1940s reaching ages over 80, when needs for health and long-term care services are relatively intensive, at the same time as the generation born in the 1960s begins to exit the labour market. See table 5.1.

**Table 5.1 General government finances if there is no change in behaviour**

Per cent of GDP  
Outcome for 2016, forecast to 2020 and projection to 2030

	2016	2020	2026	2030
Primary revenue	47.9	47.6	47.6	47.6
Primary expenditure	47.9	46.3	46.7	46.9
Consumption	26.1	25.2	25.7	25.8
Transfer payments	17.4	16.7	16.7	16.8
Primary balance	0.0	1.3	0.9	0.7
Net return on capital	0.9	0.8	1.1	1.4
<b>Net lending</b>	<b>0.9</b>	<b>2.1</b>	<b>1.9</b>	<b>2.1</b>
Gross debt	41.5	31.3	20.2	15.5

Sources: Statistics Sweden and own calculations.

Notably, the primary expenditure ratio drops rapidly to 2020 in the medium-term forecast under a no-policy-change assumption during the years following the budget year. Thereafter, the expenditure ratio increases to 2030. One explanation for this trend is that expenditure on transfer payments decreases by 0.7 per cent of GDP between 2016 and 2020. Subsequent to 2020, there is only a weak increase in transfer payments as a proportion of GDP. The downturn to 2020 is mainly due to slower growth in central government expenditure for health and labour market-related transfer payments to households compared with GDP.

In a scenario with no change in behaviour, the consolidated gross debt declines rapidly from around 41.5 per cent of GDP in 2016 to just above 31 per cent of GDP in 2020. Thereafter, the debt ratio continues to decline, but at a slower pace (table 5.1). In this scenario, the S1 indicator amounts to minus 3.7 per cent of GDP (see table 5.3). This is the size of

the permanent budgetary weakening required in 2018 so that gross debt will correspond to 60 per cent of GDP in 2030.

### Developments after 2030

In the scenario with no change in behaviour or policy, the demographic cost pressure lightens somewhat after 2030 and primary expenditure decreases to around 44.5 per cent of GDP in 2100. The long-term trend of falling expenditure is mainly due to lower general government consumption as a proportion of GDP than in 2016. One cause of this reduction is the assumption that there is no improvement of standards in tax-funded welfare services when GDP, and thus revenue, increases. Growth in expenditure for general government investments is also expected to be slower than GDP growth over the long term. The decline in investment expenditure as a proportion of GDP is caused mainly by a relatively favourable price trend for investment projects, while general government investments develop, in terms of volume, in pace with general government consumption. General government transfer payments are virtually unchanged as a proportion of GDP between 2030 and 2050 and subsequently increase somewhat faster than GDP.

**Table 5.2 Primary general government expenditure if there is no change in behaviour**

Per cent of GDP

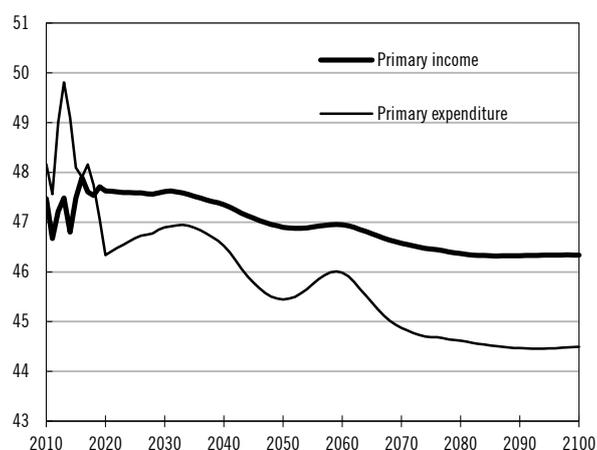
	2015	2020	2030	2050	2100
<b>Primary expenditure</b>	<b>48.1</b>	<b>46.3</b>	<b>46.9</b>	<b>45.4</b>	<b>44.5</b>
General government consumption	26.0	25.2	25.8	25.0	24.5
Childcare	1.8	1.8	1.8	1.6	1.5
Education	5.0	4.9	4.9	4.4	3.9
Healthcare	4.2	4.1	4.7	5.2	6.2
Long-term care	6.1	6.0	6.1	5.9	5.5
Other	8.8	8.4	8.4	8.0	7.4
Investments	4.2	4.4	4.3	3.7	2.7
Transfer payments	17.9	16.7	16.8	16.7	17.2

Sources: Statistics Sweden and own calculations.

Subsequent to 2030, expenditure for general government consumption declines as a proportion of GDP by around 1.3 percentage points up to 2100 in a projection where staff density is assumed to be unchanged. Expenditures for long-term care, which include both services for older people and services for people with disabilities, is the only expenditure item that demonstrates rising GDP shares after 2030, while other expenditures increase at a slower rate than GDP, meaning that their respective proportions of GDP decline.

**Chart 5.12 General government revenue and expenditure if there is no change in behaviour**

Per cent of GDP



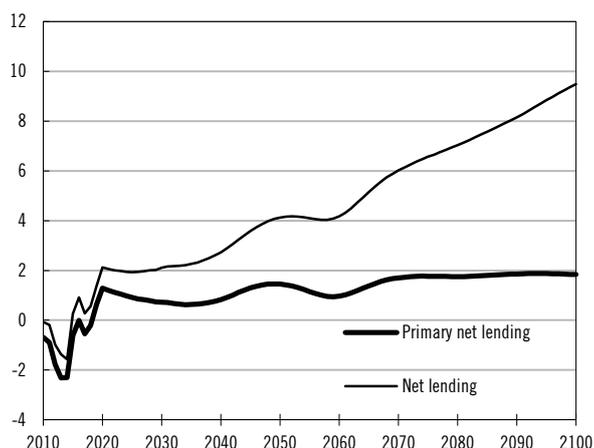
Sources: Statistics Sweden and own calculations.

The most important tax base, and thus tax revenue, is controlled largely by the development of household consumption and the labour market. Primary revenue amounts to between 47 and 48 per cent of GDP to about 2045 (see chart 5.12), but subsequently declines slightly. As a result of relatively stable development of general government revenue as a proportion of GDP, along with the slower rate of increase in general government expenditure, the primary balance gradually strengthens subsequent to about 2035 until it approaches 2 per cent of GDP in 2100, a reinforcement of around 0.5 per cent of GDP compared with 2020. The cause of this gradually widening difference between net lending and the primary balance shown in chart 5.13 is the increasingly large yield from growing financial assets

Long term, the high level of the primary balance contributes to a sharp reduction in consolidated gross debt (see chart 5.14). This debt is estimated to amount to around 31 per cent of GDP in 2020. As a result of strong net lending in the general government sector, the debt continues to decline as a proportion of GDP to around 2050, when it is entirely paid off. Combined with rapidly growing financial assets, the result is a steep increase in general government net capital income. The strong financial development also means that net lending, which includes capital income, begins to rise swiftly as a proportion of GDP from around 2060, reaching above 8 per cent of GDP in 2100 (see chart 5.13).

**Chart 5.13 Net lending if there is no change in behaviour**

Per cent of GDP

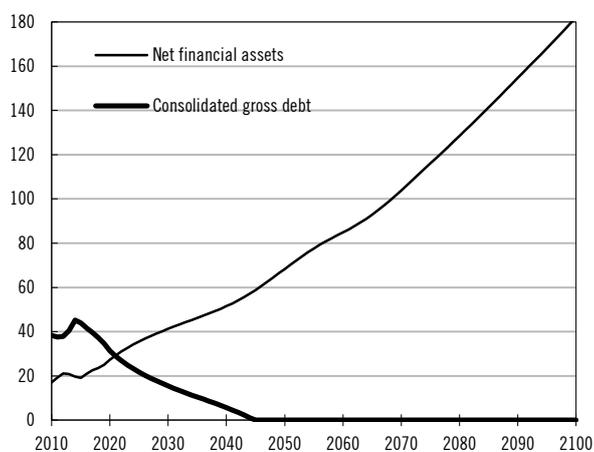


Sources: Statistics Sweden and own calculations.

It is important not to interpret the trend described as a forecast of actual development. It is virtually impossible that the current rules for general government revenue and expenditure would not be changed if a surplus of the size indicated in chart 5.13 actually arose.

**Chart 5.14 General government financial net assets and consolidated gross debt if behaviour does not change**

Per cent of GDP



Sources: Statistics Sweden and own calculations.

### **The fiscal policy can weaken without becoming unsustainable based on the stated assumptions**

The S1 sustainability indicator, as previously stated, amounts to -3.7 per cent of GDP, calculated from 2018. The large negative S1 value illustrates that a fiscal policy that results in net lending of 2.1 per cent of GDP in 2020 is able to withstand the subsequent expected deterioration in net lending, related to demographic conditions, up to 2030 without the gross debt rising to more than 60 per cent of GDP.

The S2 indicator is -1.8 per cent of GDP. Strictly interpreted, this means that net lending can be permanently weakened by 1.8 per cent of GDP in 2018 without causing uncontrolled growth in net debt as a proportion of GDP over the long term. It thus appears that the fiscal policy could also be weakened when assessed in this way. However, the fact that the indicator value is based on assumptions about development over a very long period of time means that the S2 indicator cannot be interpreted to mean that fiscal space for reform exists today. The change in the indicator value in connection with alternative assumptions provides an indication of the factors that strengthen the sustainability of the fiscal policy and those that that impair it.

### **Conditions may change**

The scenario presented in section 5.2 is based on certain assumptions (this scenario is called the baseline scenario below). Alternative scenarios are described in this section in order to shed light on which factors are significant or less significant to the development of general government net lending and thereby allow a more exhaustive assessment of the sustainability of the fiscal policy. The factors that strengthen net lending are addressed first, followed by those which impair it. Generally speaking, more hours worked in the business sector increases tax revenue without causing an increase in general government expenditure, which has positive impact on sustainability, while fewer hours worked or increased expenditure for a more ambitious general government commitment leads to an impairment.

### **It will be easier to finance welfare if exit from the labour market is postponed**

In the future, older people can most likely look forward to a considerably longer retirement than earlier generations. Both the age of exit from the labour market and average life expectancy have increased in the last 35 years, but the exit age has risen at a slower rate than average life expectancy, especially for men (see table 5.3). In 2015, the exit age was 63.8 years on average, while the average remaining life expectancy at age 65 was around 20.2 years. By international comparison, both the exit age and employment rate in the years prior to exit are high in Sweden. Sweden has the highest exit age of all European countries for which comparable data are available. Although labour market statistics for the past 15 years show that it has become more common to continue working after 65, the employment rate declines rapidly after that age. The perception that 65 is the proper age of retirement thus seems relatively resistant to change, in spite of the option for later retirement provided in the new pension system.

**Table 5.3 Exit age and average remaining life expectancy**

	Women		Men	
	1980	2015	1980	2015
Exit age	60.9	63.4	63.3	64.3
Average remaining life expectancy at 65	18.0	21.5	14.3	19.0

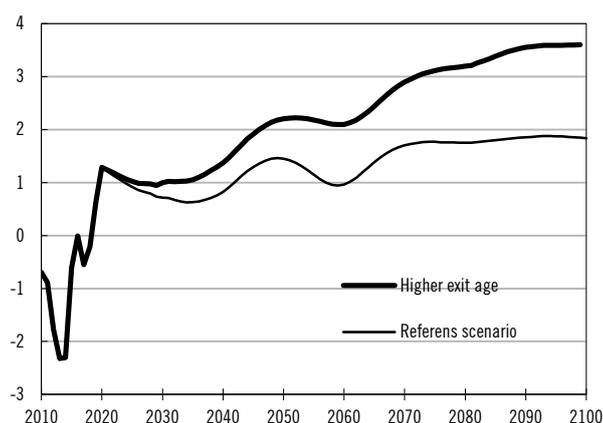
Sources: Statistics Sweden and the Swedish Pensions Agency.

Several factors indicate that the exit age may continue to rise in the future. Better general health combined with declining numbers of people with physically demanding jobs have improved conditions for continuing to work later in life. Moreover, the general level of education is higher than in the past and highly educated people usually leave the labour market later than people with no higher education. There are also financial incentives in the pension system that encourage postponement of exit from the labour market because the size of the old-age pension is based on average remaining life expectancy upon retirement.

If the date of retirement is not postponed, the average old-age pension will increase more slowly than the incomes of working people because the pension becomes lower when the average life expectancy increases and earned pension rights must be allocated over additional years of retirement. Such a development may increase general government expenditure in other areas if, for example, more pensioners qualify for the non-earnings related social security guarantee pension and supplemental housing benefits for pensioners. In addition, low pensions may lead to demands for compensation in the form of more generous pension rules or tax reductions, for example. Creation of good conditions for a longer working life is thus a matter of urgency.

**Chart 5.15 Primary balance upon higher exit age**

Per cent of GDP



Sources: Statistics Sweden and own calculations.

If the exit age increases in line with average remaining life expectancy at age 65, which is expected to increase by around 1.3 years for women between 2015 and 2030, and by an additional 1.9 years or so by 2050, the labour supply will increase by around 1.3 percent in 2030 and 3.1 percent in 2050 compared with the baseline scenario. The exit age has been

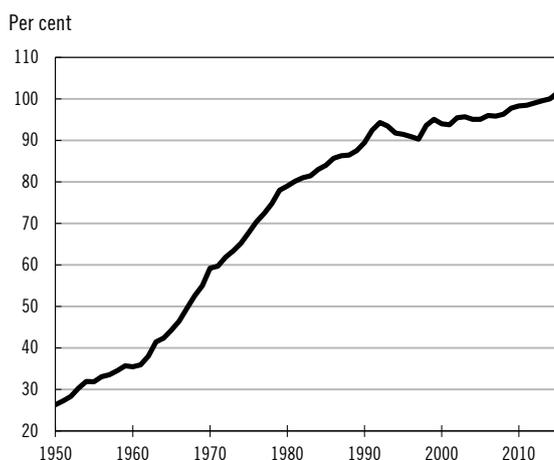
assumed to increase by two-thirds of a year for each year that average remaining life expectancy at 65 increases. In this calculation, this means that hours worked are just over 1 per cent higher in 2030 and about 3 per cent higher in 2050 than in the baseline scenario, where labour force participation is unchanged. GDP and general government tax revenue thus rise at a faster rate, but the costs of unemployment insurance, sickness insurance and disability pensions will increase in proportion to the higher labour supply. Compared with the baseline scenario, this reinforces the primary balance and thus palpably strengthens fiscal policy sustainability (see chart 5.15). The S1 indicator improves by around 0.1 per cent of GDP to minus 3.8 and the S2 indicator improves by 1.5 per cent of GDP to minus 3.3. This scenario shows that a longer working life is very important for the long-term funding of welfare.

### **Continued expansion of welfare services weakens the general government finances over the long term**

The volume of tax-funded services increases in the baseline scenario only in pace with demographically calculated demand for these services. However, the number of produced services per person entitled to the same is unchanged. In turn, demand is based on population changes in the forecast issued by Statistics Sweden, distributed by age and gender, combined with user patterns estimated from microdata for 2014. Such a calculation shows how the current level of tax-funded welfare would have to be adjusted to manage the population in 2050 predicted by Statistics Sweden, for example, but does not take into consideration that general government consumption has historically grown faster than justified by demography.

Chart 5.16 shows how actual, measured general government consumption relates to demographically estimated needs, based on the general government commitment in 2014. The ratio is 100 in 2014, when both time series are identical, but less than 100 before 2014, when the demographically conditioned needs according to the general government commitment for 2014 exceed actual consumption in these years.

**Chart 5.16 Actual general government consumption as a proportion of demographic needs based on 2014 standard**

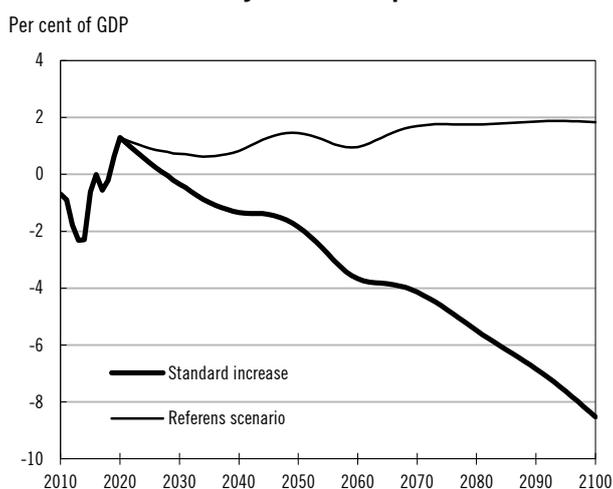


Sources: Statistics Sweden and own calculations.

In 1950, for example, actual general government consumption constituted only around 26 per cent of the general government consumption that would have been produced if the Swedish population at that time had been given access to a range of tax-funded services in line with the 2014 commitment. For 1967, the ratio is 50 per cent and for 1991, before the financial crisis peaked, the ratio is 92 per cent. During the crisis years of 1992 to 1997, the ratio declines to around 90 per cent by 1997. Chart 5.16 shows that the difference between the 2014 standard and actual consumption declined rapidly between 1960 and 1990 when the range of tax-funded services was expanded. However, the difference declined at a slower rate in the years subsequent to 1990.

Chart 5.17 shows the development of the primary balance if general government consumption continues to rise at the same rate in excess of demographic needs as it did on average during the period of 2000–2015, if this is not financed through measures that increase general government revenue. General government consumption expenditure is then 1.3 per cent of GDP higher in 2030 than in the baseline scenario, around 4 per cent of GDP higher in 2050 and around 13 per cent of GDP higher in 2100. Under an assumption of unchanged tax rates, such an increase in expenditure would severely impair the primary balance. The primary deficit amounts to around 0.3 per cent of GDP in 2030, around 1.8 per cent of GDP in 2050 and around 8.6 per cent of GDP in 2100. Such a development would lead to serious impairment of the financial position and net lending is even further impaired as return on capital deteriorates. The gross debt initially declines but thereafter begins to rise rapidly as a proportion of GDP when the deficit grows and eventually reaches obviously unsustainable levels.

**Chart 5.17 Primary balance upon further increases in standard**



Sources: Statistics Sweden and own calculations.

Increasing consumption at this rate without funding is thus an unsustainable fiscal policy over the long term, as shown by the S2 indicator. This indicator says that permanent revenue enhancements or reductions of other expenditures corresponding to around 6.6 per cent of GDP in 2018 would be required to stabilise the debt ratio in the long term, given this development in consumption. S1, however, shows that the fiscal policy will not become unsustainable in the short term measured with this indicator. The primary balance can be weakened by 3.2 per cent of GDP in 2018 if the requirement is for gross debt to equal 60 per cent of GDP in 2030, which is somewhat less than in the baseline scenario.

### **The fiscal policy is sustainable in most scenarios**

The S1 and S2 sustainability indicators are presented in table 5.4. All indicators show that the fiscal policy is sustainable over the long term in the baseline scenario. However, this result should be interpreted with caution for several reasons. The fiscal challenges addressed in this section have an effect over the very long term; for that reason the calculations often extend far into the future. The long calculation horizon involves a sizeable level of uncertainty. It should also be added that the calculations strongly depend 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 changes in the different assumptions applied in the calculations.

**Table 5.4 Sustainability indicators**

Per cent of GDP

	S1	S2
Gouvernement, No change in behaviour	-3.7	-1.8
<i>National institute of Economic Research (Feb 2017)</i>	...	0,0
<i>European Commission (Jan 2017)</i>	-2,9	1,0
<b>Impairs sustainability</b>		
Further raising of ambition	-3.2	6.6
<b>Improves sustainability</b>		
Higher exit age	-3.8	-3.3

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

Source: Own calculations.

Table 5.4 shows the sustainability indicators for the alternative scenarios discussed in this section. In general, it can be said that fiscal policy is sustainable in the majority of the different calculations. The S1 indicator is negative in all scenarios presented, which means that consolidated gross debt, Maastricht debt, in 2018 is sufficiently below the maximum level of 60 per cent of GDP permitted by the Stability and Growth Pact that for the S1 indicator to be positive, substantial budgetary weakening would be required. The S2 indicator is also negative in the baseline scenario and in the alternative scenario where working life is extended in line with the increase in average remaining life expectancy at age 65. The S2 indicator is clearly positive only in the scenario with a continuous, unfunded increase in the scope of the general government commitment.

### **Sustainability is somewhat better than in the previous assessment**

In the baseline scenario, S1 amounts to minus 3.7 per cent of GDP and S2 to minus 1.8 per cent of GDP. In the Spring Fiscal Policy Bill for 2016, S1 is estimated at minus 1.8 per cent of GDP and S2 at minus 1.1 per cent of GDP in the corresponding scenario. That the negative indicator values are now larger in absolute terms means that sustainability is better than previously assessed. A better financial position at the end of the medium-term forecast is one important reason for the improvement in sustainability. In the final year of the medium-term calculation, 2020, the primary balance upon which the long-term projection is based is around 1.4 per cent of GDP higher than in the calculation presented in the Spring Fiscal Policy Bill for 2016. All other things being equal, this means that long-term sustainability measured with S2 improves by 1.4 per cent of GDP. Likewise, one reason that the S1 indicator was revised is that consolidated gross debt at the first year of the calculation, 2018, is around 3 per cent of GDP lower than the estimate in the Spring Fiscal Policy Bill for 2016. An additional factor that strengthens fiscal policy sustainability is that the labour supply per capita going forward is slightly stronger in this calculation than in the calculation upon which the earlier estimate was based.

## **Overall assessment of the long-term sustainability of fiscal policy**

The period of 2020–2030 is characterised by growing demographic pressure on expenditure. Primary general government expenditure is estimated to increase by around 0.6 per cent of GDP in this ten-year period, assuming no changes to the welfare commitment. To manage such a development, it is important that policy remains oriented towards reducing unemployment and increasing hours worked. Migration to Sweden in recent years constitutes a potential addition to the labour force that could, over the long term, reduce the pressure on the general government finances presented by an ageing population. It is important that the migrant labour supply is utilised for the sake of both the people who have come to Sweden and the economy as a whole, but also for the general government finances. However, the fiscal policy has been assessed as sustainable in the baseline scenario, assuming no changes in behaviour and where no new, unfunded standard-enhancing reforms are implemented. In this case, S1 amounts to minus 3.7 per cent of GDP and S2 to minus 1.8 per cent of GDP. Accordingly, an important criterion that is the basis of market evaluations of sustainability is met.

That as many people as possible have a long and productive working life is a prerequisite for pensioners and other citizens to enjoy good economic standards and for the delivery of high-quality publicly funded services. Increased average life expectancy presents the opportunity to spend more time at leisure as well as in work. As average life expectancy increases, it is therefore important that labour force participation is high and working life long for both women and men. A prerequisite for this is that working conditions are such that are conducive to longer working life. The pensions system is creating strong incentives to work longer as average life expectancy increases because pensioners' incomes decrease in relation to those of people in work if the retirement age is not postponed. If working life is extended in line with the increase in average remaining life expectancy at 65, however, the sustainability of the fiscal policy will be substantially improved.

## **6 Quality in the general government finances**

### **6.1 Expenditure**

Looking at total revenue and expenditure does not suffice to assess the structure of general government finances. Accordingly, these are reported at a more detailed level below. Principles have been developed at the EU level for the production of uniform statistics on the member states' distribution of general government finances (COFOG

classification).<sup>4</sup> Uniform statistics facilitate comparison between - different member states' general government expenditure, as well as of how this develops over time. The ability to evaluate whether a change in the composition of general government expenditure has affected long-term growth is dependent on additional information and a higher level of detail. However, the distribution of general government expenditure between different purposes and the change in distribution over time do indicate how different types of expenditure and purposes have been prioritised and provide an indication of the policy's focus.

**Table 6.1 General government expenditure by function, per cent of GDP**

Per cent of GDP

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Change 2005–2015
General public services	7.8	7.8	7.7	7.8	7.5	7.4	7.7	7.7	7.8	7.5	7.1	-0.7
Interest payments	1.9	1.8	1.8	1.7	1.3	1.2	1.3	1.1	1.0	0.8	0.6	-1.3
Other	5.9	6.0	5.9	6.1	6.1	6.2	6.4	6.6	6.8	6.7	6.5	0.6
Defence	1.7	1.6	1.5	1.5	1.5	1.5	1.4	1.4	1.5	1.3	1.1	-0.5
Public order and safety	1.3	1.3	1.3	1.3	1.4	1.4	1.3	1.4	1.4	1.4	1.3	0.0
Economic affairs and business policy	4.2	4.0	3.9	4.2	4.5	4.4	4.3	4.5	4.3	4.4	4.2	0.0
Environmental protection	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	-0.1
Housing and community amenities	0.8	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.8	0.7	-0.1
Health	6.5	6.4	6.4	6.6	7.1	6.8	6.8	6.9	7.0	7.0	7.0	0.5
Recreation, culture and religion	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.1
Education	6.7	6.6	6.3	6.4	6.8	6.5	6.4	6.5	6.6	6.6	6.6	-0.1
Social protection	22.5	21.7	20.5	20.5	22.2	21.1	20.4	21.1	21.7	21.3	21.0	-1.4
<b>Total expenditure</b>	<b>52.7</b>	<b>51.4</b>	<b>49.7</b>	<b>50.4</b>	<b>53.1</b>	<b>51.2</b>	<b>50.6</b>	<b>51.7</b>	<b>52.4</b>	<b>51.7</b>	<b>50.5</b>	<b>-2.2</b>
Excluding interest	50.8	49.6	47.9	48.7	51.8	50.0	49.4	50.6	51.4	50.9	49.9	-0.9

Sources: Statistics Sweden and own calculations.

As shown in table 6.1 and table 6.2, expenditure on social protection in Sweden in 2015 accounted for more than 20 per cent of GDP and more than 40 per cent of total general government expenditure. These expenditures declined as a proportion of total expenditure around the middle of the 2000s, but rose again in 2009 in connection with the financial crisis. Thereafter, expenditure on social protection has varied around 41 per cent of total expenditure. Expenditure on healthcare also accounts for a major share of general government expenditure. Having amounted to around 12 per cent of total expenditure in 2005, the proportion rose over a period of several years and in 2015 amounted to

<sup>4</sup> 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 entities. The classification is in accordance with international standards.

13.8 per cent. There has been a large fall in the proportion of expenditure taken up by interest payments. This is mainly the result of general government consolidated gross debt falling sharply as a proportion of GDP at the same time as interest rates have been relatively low.

Expenditure measured as a proportion of GDP (the expenditure ratio) declined overall from around 53 per cent of GDP to around 50 per cent over the period of 2004–2008. Following a temporary increase in the wake of the financial crisis in 2009, the expenditure ratio has declined in relation to GDP. In 2015, the general government sector reported an expenditure ratio of around 50.5 per cent of GDP.

**Table 6.2 General government expenditure by function, per cent of total expenditure**

Per cent of total expenditure

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Change 2005–2015
General public services	14.8	15.1	15.5	15.5	14.0	14.5	15.2	14.9	14.9	14.6	14.1	-0.7
Interest payments	3.6	3.5	3.7	3.4	2.5	2.4	2.6	2.1	1.8	1.6	1.3	-2.4
Other	11.1	11.7	11.9	12.1	11.6	12.1	12.6	12.8	13.1	13.0	12.8	1.7
Defence	3.1	3.2	3.1	2.9	2.8	3.0	2.9	2.7	2.8	2.5	2.3	-0.9
Public order and safety	2.4	2.5	2.6	2.6	2.6	2.7	2.7	2.7	2.6	2.6	2.6	0.2
Economic affairs and business policy	7.9	7.7	7.9	8.3	8.5	8.7	8.6	8.6	8.3	8.4	8.4	0.4
Environmental protection	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.7	0.6	0.6	0.6	-0.1
Housing and community amenities	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.5	0.0
Health	12.3	12.5	12.8	13.1	13.3	13.2	13.5	13.4	13.4	13.6	13.8	1.5
Recreation, culture and religion	1.9	2.0	2.0	2.1	2.1	2.2	2.2	2.1	2.2	2.2	2.2	0.3
Education	12.7	12.8	12.7	12.8	12.8	12.7	12.7	12.6	12.5	12.8	13.0	0.3
Social protection	42.6	42.1	41.3	40.6	41.7	41.1	40.3	40.9	41.3	41.2	41.6	-1.0
<b>Total expenditure</b>	<b>100.0</b>											
Excluding interest	96.4	96.5	96.3	96.6	97.5	97.6	97.4	97.9	98.2	98.4	98.7	2.4

Sources: Statistics Sweden and own calculations.

## 6.2 Revenue

For 2017, the tax ratio, that is, total tax revenue as a percentage of GDP, is estimated at 43.6 per cent. The tax ratio is usually affected mainly by regulatory changes in the tax system, as the composition of the tax bases normally co-varies with the business cycle. Between 2009 and 2020, the tax ratio is expected to fall by 0.4 percentage points. However, major changes have occurred over the course of this period. The tax ratio declined by 1.5 percentage points between 2009 and 2014 (see table 6.3). Subsequent to 2014, the tax ratio has risen and is expected to be between 43.6 and 43.8 per cent for the remainder of the forecast period.

First and foremost, revenues from tax on labour declined between 2009 and 2014. The working tax credit accounts for the largest

proportion of the tax reductions, but social security contributions have also been reduced and there are greater opportunities to receive tax deductions for work in and on the home. Revenues from tax on labour are estimated to have risen as a proportion of GDP in 2016 and are expected to continue rising during the rest of the forecast period. This is explained mainly by the elimination of reduced social security contributions for young people in two steps in 2015 and 2016, changes in the mortgage deduction and reductions of the working tax credit implemented in 2016. In addition, the wage bill is expected to grow faster than GDP during some of the forecast years.

Revenues from tax on capital are expected to increase by 0.3 percentage points between 2009 and 2020. During these years, revenues from tax on capital fluctuate as a proportion of GDP. Specifically in 2015, the ratio for tax on capital is unusually high, based in part on temporarily higher revenues from tax on corporate income and household tax on capital. Subsequent to 2015, the tax ratio for tax on capital is expected to remain stable at 5.0 to 5.1 per cent of GDP.

Revenues from taxes on consumption are estimated to decline by 0.8 percentage points as a proportion of GDP between 2009 and 2020. Revenues from VAT are expected to remain essentially unchanged throughout the period, although revenues were slightly higher in 2016. However, revenues from excise duties are declining as a proportion of GDP, even though most of these duties have been increased on certain occasions. The decline in revenues from excise duties is explained by factors including more efficient residential heating, the switch from electricity and oil to geothermal heating and district heating, as well as newer vehicles with more energy-efficient engines.

Revenues from arrears and other taxes rose as a proportion of GDP by 0.2 percentage points between 2015 and 2016. This is explained both by a temporary respite and by the introduction of obligatory contributions to resolution financing arrangements.

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

Per cent of GDP

													Change
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2009–2020
Tax on labour	26.5	25.0	25.0	25.6	25.8	25.2	25.1	26.0	26.2	26.3	26.3	26.2	-0.3
Direct taxes	14.5	13.5	13.3	13.7	13.9	13.5	13.4	13.9	14.0	14.0	14.1	14.0	-0.5
Indirect taxes	12.0	11.5	11.6	11.9	11.9	11.8	11.8	12.2	12.2	12.2	12.3	12.2	0.2
Tax on capital	4.9	5.4	5.0	4.6	4.6	5.1	5.9	5.1	5.0	5.0	5.0	5.1	0.3
Tax on capital, households	0.8	1.0	0.8	0.8	0.9	1.2	1.7	1.4	1.3	1.3	1.3	1.3	0.5
Corporate income	2.6	3.0	2.8	2.4	2.4	2.5	2.9	2.4	2.5	2.5	2.5	2.5	-0.1
Tax on consumption	12.9	12.8	12.4	12.3	12.2	12.1	12.1	12.3	12.2	12.1	12.1	12.1	-0.8
VAT	9.2	9.2	9.1	9.0	9.0	9.0	9.1	9.3	9.2	9.2	9.2	9.2	0.1
Arrears and other taxes	-0.1	0.0	0.1	0.1	0.3	0.2	0.2	0.4	0.3	0.3	0.3	0.3	0.4
<b>Total tax revenue</b>	<b>44.1</b>	<b>43.2</b>	<b>42.5</b>	<b>42.6</b>	<b>42.9</b>	<b>42.6</b>	<b>43.3</b>	<b>43.8</b>	<b>43.6</b>	<b>43.6</b>	<b>43.8</b>	<b>43.7</b>	<b>-0.4</b>

Sources: Statistics Sweden and own calculations.

Changes in the composition of tax revenue are relatively small between 2009 and 2020 (see table 6.4). Revenue from tax on labour is expected to remain at about 60 per cent of total tax revenue, while the share of tax on capital increases and the share of tax on consumption decreases. Tax on capital accounts for the largest variation, having amounted to between 10.7 and 13.5 per cent of total tax revenues.

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

Percent of total revenue

													Change
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2009–2020
Tax on labour	60.1	57.8	58.7	60.3	60.1	59.3	58.0	59.5	60.0	60.3	60.2	60.0	-0.1
Direct taxes	32.8	31.2	31.4	32.2	32.3	31.6	30.8	31.7	32.0	32.2	32.2	32.0	-0.8
Indirect taxes	27.3	26.6	27.4	28.1	27.8	27.6	27.2	27.8	28.0	28.1	28.0	28.0	0.7
Tax on capital	11.1	12.6	11.8	10.7	10.7	11.9	13.5	11.6	11.5	11.4	11.5	11.7	0.7
Tax on capital, households	1.7	2.3	1.9	1.8	2.0	2.9	3.8	3.2	3.1	2.9	2.9	2.9	1.2
Corporate income	6.0	7.0	6.6	5.7	5.5	5.8	6.6	5.5	5.7	5.8	5.7	5.8	-0.2
Tax on consumption	29.2	29.5	29.3	28.9	28.5	28.4	28.1	28.1	27.9	27.7	27.6	27.6	-1.6
VAT	20.8	21.3	21.4	21.1	21.0	21.2	21.0	21.2	21.1	21.0	21.0	21.1	0.3
Arrears and other taxes	-0.3	0.1	0.2	0.2	0.7	0.4	0.4	0.8	0.6	0.6	0.7	0.7	1.0
<b>Total tax revenue</b>	<b>100</b>												

Sources: Statistics Sweden and own calculations.

## Appendix A – Technical assumptions

The methods used in calculations concerning the general government finances in the period of 2021–2100 are discussed 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 February 2016, 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	1.94	1.91	1.89	1.89	1.89
Average life expectancy, women	83.5	84.6	85.8	87.0	88.1	89.1
Average life expectancy, men	79.5	81.3	82.9	84.3	85.5	86.7
Net migration	50,000	80,000	43,000	29,000	24,000	23,000

Source: Statistics Sweden.

### *The labour market*

The development of the labour market is strongly linked to the demographic trend. Projections concerning the employment rate and hours worked are distributed by age, gender and country of origin. The extent of participation in the labour market, employment rate and average working hours are assumed to remain constant in each group. This can be interpreted as unchanged labour market behaviour because the rate of absenteeism, rate of sickness and activity compensation, average hours worked, employment rate and unemployment rate are constant within each group.

Hours worked in the general government sector are assumed to rise at the same rate as demographically dependent general government consumption. This implies an assumption that the staffing density is constant in the general government sector. Hours worked in the business sector represent the difference between total hours worked and hours worked in the general government sector.

### *Productivity*

The assumption regarding productivity growth in the business sector is based on an analysis of the historical trend. The underlying trend in productivity growth is assumed to be 2.2 per cent beginning in 2021. Based on 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, however, reasonable to assume that in the long term it will adjust to international growth rates. The weak growth

in 2007–2009 has not affected the view of the long-term trend in productivity. Productivity growth in the general government sector is assumed to be zero from 2021.

#### *Components of GDP: Expenditure approach and production*

GDP growth is the sum of the productivity growth in the economy as a whole and the increase in hours worked. GDP from the usage side is determined so that the development of household consumption expenditure is generated by a macroeconomic model called MIMER.<sup>5</sup> 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. Overall, household consumption increases slightly to 2060. In total, Gross fixed capital formation account for 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 wage growth and CPI. The remaining components of GDP using the expenditure approach are net exports, which are calculated residually in the estimates as the difference between GDP and its domestic usage. Production of general government consumption is derived with an assumption of unchanged productivity and degree of privatisation. Production in the business sector is determined as the sum of productivity and hours worked in that sector.

#### *Inflation and wages*

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

#### *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 and value increases are then calculated so as

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<sup>5</sup> MIMER is a model for intergenerational macroeconomic accounts; that is, a macroeconomic simulation model of the Swedish economy. See *Promemoria, Teknisk beskrivning av modellen MIMER [Memorandum, Technical description of the MIMER model]* on the Government's website for a more detailed account of the model.

the total return is the same as for interest-bearing assets. It is also likely, in the long-term, that differences will arise between the interest rates on borrowing and lending and that there will be differences between sectors. It is also likely that the long-term 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
<b>Percentage change</b>							
Population, 15–74 years	1.0	0.7	0.6	0.6	0.3	0.2	0.3
Labour force, 15–74 years	0.8	0.8	0.6	0.4	0.4	0.3	0.2
Number employed, 15–74 years	0.6	1.4	0.7	0.3	0.4	0.4	0.3
Hours worked	2.6	1.6	1.3	0.4	0.4	0.3	0.3
Productivity	4.7	3.2	1.9	2.2	2.2	2.2	2.2
GDP, constant prices	6.0	4.1	2.5	2.2	2.3	2.2	2.2
GDP per capita	5.1	3.0	1.3	1.5	1.9	1.7	1.8
GDP productivity	3.3	2.4	1.1	1.8	1.9	1.9	1.9
GDP deflator	1.0	2.0	1.9	2.3	2.2	2.2	2.2
CPI, annual average	1.2	0.0	2.7	2.0	2.0	2.0	2.0
Hourly wages	0.4	2.7	2.8	4.2	4.2	4.2	4.2
<b>Per cent</b>							
Real interest	1.7	1.3	-0.8	3.1	3.0	3.0	2.7
Employment rate, 15–74 years	64.4	66.6	67.9	67.1	66.0	67.3	66.5
ILO unemployment rate, 15–74 years	8.6	7.4	6.2	6.7	7.0	6.6	6.3

Sources: Statistics Sweden and own calculations.

### *General government revenue*

The calculations reported 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 shows, in detail, 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	43.2	43.6	43.7	43.9	43.8	44.2
Household direct taxes and charges							
Proportion of GDP	12.5	12.9	13.1	13.2	13.3	13.3	13.5
Implicit tax rate of direct taxes	23.8	24.1	24.9	24.9	24.9	24.9	24.9
Tax base for direct taxes as a proportion of GDP	52.6	53.4	52.7	53.1	53.5	53.4	54.3
Implicit tax rate of charges	6.6	6.7	6.7	6.7	6.7	6.7	6.7
Tax base for charges as a proportion of GDP	38.8	39.7	39.8	40.4	40.8	41.1	41.5
Corporate direct taxes							
Proportion of GDP	3.0	2.7	2.8	2.8	2.8	2.8	2.8
Implicit tax rate	9.7	9.2	9.9	9.9	9.9	9.9	9.9
Tax base as a proportion of GDP	30.9	29.3	28.8	28.5	28.4	28.5	28.2
Indirect taxes <sup>1</sup>							
Proportion of GDP	13.4	12.9	12.8	12.7	12.6	12.5	12.5
Implicit tax rate	28.9	28.7	28.5	28.0	27.5	27.0	26.6
Tax base as a proportion of GDP	46.4	45.1	45.0	45.2	45.9	46.2	46.8
Social security contributions from employers and the self-employed <sup>2</sup>							
Proportion of GDP	14.0	14.3	14.8	15.0	15.1	15.3	15.4
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	39.7	39.8	40.4	40.8	41.1	41.5

<sup>1</sup>Including wage-dependent indirect taxes.<sup>2</sup>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, healthcare and long-term care, distributed according to 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 2020. This may be regarded as an expression of unchanged standards in general government services. The price of general government consumption develops in line with a total appraisal of the price of the component parts of gross production, that is, hourly wages, the price of consumption and the price of consumption of fixed capital (the investment price).

**Table A.4 General government consumption**

Per cent of GDP

	2010	2015	2020	2030	2040	2050	2060
<b>Total consumption</b>	<b>25.2</b>	<b>26.0</b>	<b>25.2</b>	<b>25.8</b>	<b>25.5</b>	<b>25.0</b>	<b>25.3</b>
Childcare	1.7	1.8	1.8	1.8	1.6	1.6	1.6
Education	5.1	5.0	4.9	4.9	4.7	4.4	4.3
Healthcare	4.1	4.2	4.1	4.7	5.0	5.2	5.6
Long-term care	5.9	6.1	6.0	6.1	6.0	5.9	5.9
Other activities	8.5	8.8	8.4	8.4	8.2	8.0	7.9

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 rules and regulations that automatically raise expenditure in line with wages. This applies to pensions, which are adjusted upward in line with the earnings index, and also partly to transfer payments compensating for loss of earnings, 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 wages. This also means there is an assumption that the “ceilings” applied in the social insurance systems rise in line with wages. Such a guarantee of standards offsets the erosion of household transfer payments that would take place if the estimate were only based on a price projection.

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

Per cent of GDP

	2010	2015	2020	2030	2040	2050	2060
<b>Total transfer payments</b>	<b>18.7</b>	<b>17.9</b>	<b>16.7</b>	<b>16.8</b>	<b>16.9</b>	<b>16.7</b>	<b>17.1</b>
Transfer payments to households	15.3	14.4	13.3	13.4	13.5	13.3	13.7
Old age	8.0	7.8	7.6	7.4	7.4	7.2	7.6
Ill-health	2.9	2.7	2.3	2.4	2.5	2.5	2.5
Children/studies	2.1	2.0	1.9	1.9	1.9	1.9	2.0
Labour market	1.0	0.8	0.5	0.6	0.6	0.6	0.5
Other	1.4	1.2	1.0	1.0	1.1	1.1	1.1
Transfer payments to businesses and the rest of the world	3.3	3.5	3.4	3.4	3.4	3.4	3.5

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 the demographic trend, economic conditions and 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
<b>Revenue</b>	<b>6.6</b>	<b>6.6</b>	<b>6.5</b>	<b>7.0</b>	<b>7.1</b>	<b>7.4</b>	<b>7.5</b>
Fees	5.9	5.9	5.8	5.9	6.0	6.0	6.0
Interest, dividends etc.	0.7	0.7	0.7	1.1	1.1	1.4	1.5
<b>Expenditure</b>	<b>6.4</b>	<b>6.4</b>	<b>6.5</b>	<b>6.1</b>	<b>5.9</b>	<b>5.5</b>	<b>5.8</b>
Pensions	6.2	6.2	6.3	5.9	5.7	5.4	5.6
Other	0.2	0.2	0.2	0.2	0.2	0.2	0.2
<b>Net lending</b>	<b>0.2</b>	<b>0.2</b>	<b>0.0</b>	<b>0.9</b>	<b>1.2</b>	<b>1.8</b>	<b>1.8</b>
<b>Net financial assets</b>	<b>25.5</b>	<b>29.8</b>	<b>30.2</b>	<b>29.8</b>	<b>31.1</b>	<b>36.8</b>	<b>43.6</b>

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 if not otherwise stated

	2010	2015	2020	2030	2040	2050	2060
Total expenditure	49.4	48.7	47.0	48.0	47.1	45.4	45.4
Age-related <sup>1</sup>	34.2	34.5	33.3	33.8	33.6	32.7	33.5
Pensions <sup>2</sup>	8.0	7.8	7.6	7.4	7.4	7.2	7.6
Guarantee pensions	0.5	0.4	0.3	0.4	0.6	0.7	0.9
Old-age pensions	6.2	6.2	6.3	5.9	5.7	5.4	5.6
Other pensions (disability and survivors')	0.7	0.5	0.4	0.4	0.4	0.4	0.4
General government occupational pensions	0.6	0.6	0.6	0.7	0.7	0.7	0.7
Healthcare	5.9	6.1	6.0	6.1	6.0	5.9	5.9
Long-term care	4.1	4.2	4.1	4.7	5.0	5.2	5.6
Childcare	1.7	1.8	1.8	1.8	1.6	1.6	1.6
Education	5.1	5.0	4.9	4.9	4.7	4.4	4.3
Unemployment benefit	1.0	0.8	0.5	0.6	0.6	0.6	0.5
Other age-related expenditure	8.5	8.8	8.4	8.4	8.2	8.0	7.9
Interest expenditure	1.1	0.5	0.5	0.7	0.2	0.0	0.0
Total revenue	49.3	49.0	49.1	50.1	49.8	49.5	49.6
of which income from capital	1.8	1.5	1.5	2.5	2.5	3.0	3.5
of which from the pensions system	0.7	0.7	0.7	1.1	1.1	1.4	1.5
<b>Assumptions</b>							
Labour productivity growth, GDP level	3.3	2.4	1.1	1.8	1.9	1.9	1.9
GDP growth	6.0	4.1	2.5	2.2	2.3	2.2	2.2
Unemployment	8.6	7.4	6.2	6.7	7.0	6.6	6.3
Population aged 65+ as a proportion of the total population	18.3	19.7	20.1	21.3	22.7	23.1	24.8

<sup>1</sup> 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.

<sup>2</sup> 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.<sup>6</sup> The calculations in the Convergence Programme are, however, based on the data presented to the Riksdag in the 2016 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.

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<sup>6</sup> The 2015 Ageing Report: Economic and budgetary projections for the 28 EU Member States (2013–2060).

**Table B.1 Macroeconomic assumptions in the EPC estimates and in the Swedish Convergence Programme**

Annual percentage change if not otherwise stated

	2013	2020	2030	2040	2050	2060
Population, 15–64 years (index)						
EPC	100.0	102.5	108.9	115.7	122.1	124.8
Convergence Programme	100.0	105.3	111.7	117.3	120.1	124.1
Employed (index)						
EPC, 15–64 years	100.0	105.7	112.5	119.9	126.8	129.5
Convergence Programme, 15–74 years	100.0	108.8	114.1	117.7	122.9	125.6
Hours						
EPC	1.2	0.6	0.6	0.7	0.4	0.3
Convergence Programme	0.4	1.3	0.4	0.4	0.3	0.3
Unemployment, per cent of labour force						
EPC, 15–74 years	8.1	6.2	5.8	5.8	5.8	5.8
Convergence Programme, 15–74 years	8.0	6.2	6.7	7.0	6.6	6.3
Labour productivity						
EPC	0.9	1.3	1.5	1.5	1.5	1.5
Convergence Programme	0.9	1.1	1.8	1.9	1.9	1.9
Potential GDP						
EPC	2.2	1.9	2.1	2.2	1.9	1.8
Convergence Programme	1.2	2.5	2.2	2.3	2.2	2.2
Potential GDP per capita						
EPC	1.3	1.0	1.4	1.6	1.4	1.4
Convergence Programme	0.4	1.3	1.5	1.9	1.7	1.8

Sources: European Commission and own calculations.

The population forecast used in the EPC was prepared by Eurostat in 2015. Calculations in the Convergence Programme are based on a population forecast issued by Statistics Sweden in February 2016. Over the long term, the population grows considerably faster than in the EPC calculation. The EPC thus also has a stronger increase both in hours worked and in the number of employed persons. Productivity growth is stronger in the Convergence Programme than in the EPC calculations. The higher level of productivity is one reason for the GDP level for 2060 being higher in the Convergence Programme. GDP per capita also reaches a higher level in the Convergence Programme.

**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	-0.8	-0.7	-0.1	-0.8	-1.4	0.6
Healthcare	-0.1	0.2	-0.3	-0.3	0.4	-0.7
Long-term care	-0.1	0.3	-0.4	1.3	1.5	-0.2
Education	-0.3	0.0	-0.3	-0.8	0.2	-1.0
Unemployment benefit	-0.4	-0.1	-0.3	-0.4	-0.1	-0.3
<b>Total</b>	<b>-1.8</b>	<b>-0.4</b>	<b>-1.4</b>	<b>-0.9</b>	<b>0.6</b>	<b>-1.5</b>

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 if not otherwise stated

	SEK billions	2016	2017	2018	2019	2020
Real GDP	4 320	3.3	2.6	2.1	2.0	2.5
Nominal GDP	4 379	4.7	4.7	3.9	4.0	4.4
<b>Components of real GDP</b>						
Private consumption expenditure	1 926	2.2	2.3	2.6	2.9	3.1
General government consumption expenditure	1 120	3.1	2.0	-0.3	-0.6	0.0
Gross fixed capital formation	1 047	5.9	3.3	3.2	3.3	3.7
Changes in inventories and net acquisition of valuables <sup>1</sup>	27	0.1	-0.1	0.0	0.0	0.0
Exports of goods and services	1 970	3.4	4.4	3.9	3.6	4.0
Imports of goods and services	1 771	3.7	3.8	3.7	3.9	4.2
<b>Contribution to real GDP growth</b>						
Final domestic demand		3.2	2.3	1.8	2.0	2.3
Changes in inventories and net acquisition of valuables		0.1	-0.1	0.0	0.0	0.0
External balance of goods and services		0.0	0.5	0.2	0.0	0.1

<sup>1</sup> Contribution to GDP growth.

Sources: Statistics Sweden and own calculations.

**Table C.1b Price developments**

Annual percentage change if not otherwise stated

	Level	2016	2017	2018	2019	2020
GDP deflator	101.4	1.4	2.0	1.8	2.0	1.9
Private consumption deflator	101.0	1.0	1.6	1.8	1.9	2.0
HICP <sup>1</sup>	101.1	1.1	1.6	1.4	1.7	1.8
Public consumption deflator	102.1	2.1	3.2	2.9	3.2	2.9
Investment deflator	101.3	1.3	1.9	1.4	1.4	1.4
Export price deflator (goods and services)	98.6	-1.4	3.9	0.1	0.6	0.7
Import price deflator (goods and services)	98.3	-1.7	4.3	0.3	0.8	0.8

Note: All deflators are indices, 2014=100.

<sup>1</sup> Index, 2005=100.

Sources: Statistics Sweden and own calculations.

## Table C.1c Labour market developments

Annual percentage change if not otherwise stated

	Level	2016	2017	2018	2019	2020
	2016					
Employment, persons <sup>1</sup>	4,889	1.7	1.7	1.0	0.7	0.7
Employment, hours worked <sup>2</sup>	792,819	2.3	0.9	0.7	0.7	1.3
Unemployment rate <sup>3</sup>	367	6.9	6.6	6.4	6.3	6.2
Labour productivity, persons <sup>4</sup>	780	1.4	1.0	1.1	1.3	1.7
Labour productivity, hours worked <sup>5</sup>	481	0.7	1.7	1.4	1.3	1.1
Compensation of employees <sup>6</sup>	2,074	4.7	4.9	4.2	4.2	4.1
Compensation per employee <sup>7</sup>	424,268	3.0	3.2	3.2	3.5	3.4

<sup>1</sup> Occupied population, National Accounts definition. Level in thousands.

<sup>2</sup> National Accounts definition. Level in ten thousands.

<sup>3</sup> Level in thousands. Per cent of labour force.

<sup>4</sup> Real GDP per person employed, SEK.

<sup>5</sup> Real GDP per hour worked, SEK.

<sup>6</sup> SEK billions.

<sup>7</sup> SEK.

Sources: Statistics Sweden and own calculations.

## Table C.1d Sectoral balances

Per cent of GDP

	2016	2017	2018	2019	2020
Net lending/borrowing, excluding statistical discrepancy	4.5	4.7	4.4	4.3	4.2
<i>of which</i>					
Balance of goods and services	4.4	4.7	4.6	4.4	4.3
Balance of primary incomes and transfers	0.2	0.2	0.0	0.1	0.1
Capital account	-0.1	-0.2	-0.2	-0.2	-0.2
Net lending/borrowing, private sector	3.6	4.4	3.8	2.9	2.1
Net lending/borrowing, general government	0.9	0.3	0.6	1.4	2.1
Statistical discrepancy	-7.1	--	--	--	--

Sources: Statistics Sweden and own calculations.

**Table C.2a General government budgetary prospects**

Per cent of GDP if not otherwise stated

	SEK billions	2016	2017	2018	2019	2020
<b>Net lending by sub-sector</b>						
General government	40	0.9	0.3	0.6	1.4	2.1
Central government	49	1.1	0.6	1.0	2.0	2.6
Local government	-13	-0.3	-0.3	-0.4	-0.5	-0.5
Social security funds	3	0.1	0.0	-0.1	-0.1	0.0
<b>General government</b>						
Total revenue	2,203	50.3	49.9	49.9	50.0	50.0
Total expenditure	2,163	49.4	49.6	49.3	48.6	47.9
Net lending/borrowing	40	0.9	0.3	0.6	1.4	2.1
Interest expenditure	19	0.4	0.4	0.5	0.5	0.5
Primary balance	59	1.3	0.7	1.1	1.9	2.7
One-off and other temporary measures	6	0.1	-0.2	0.0	0.0	0.0
<b>Selected components of revenue</b>						
Total taxes	1,680	38.4	38.1	38.1	38.3	38.2
Taxes on production and imports	991	22.6	22.5	22.4	22.4	22.3
Current taxes on income, wealth, etc.	689	15.7	15.7	15.7	15.9	16.0
Capital taxes	0	0.0	0.0	0.0	0.0	0.0
Social contributions	234	5.3	5.3	5.3	5.3	5.3
Income from capital	69	1.6	1.5	1.5	1.5	1.6
Other	220	5.0	4.9	4.9	4.9	4.9
Total revenue	2,203	50.3	49.9	49.9	50.0	50.0
Taxes burden	1,920	43.9	43.6	43.6	43.6	43.6
<b>Selected components of expenditure</b>						
Compensation of employees + intermediate consumption	904	20.6	20.6	20.3	20.0	19.7
Compenosation of employees	551	12.6	12.6	12.5	12.4	12.3
Intermediate consumption	354	8.1	8.0	7.8	7.6	7.4
Social payments	742	16.9	16.9	16.7	16.4	16.2
of which unemployment benefits	32	0.7	0.7	0.6	0.5	0.5
Social transfers in kind supplied via market producers	165	3.8	3.9	3.8	3.8	3.8
Social transfers other than in kind	577	13.2	13.0	12.8	12.6	12.4
Interest expenditure	19	0.4	0.4	0.5	0.5	0.5
Subsidies	71	1.6	1.6	1.6	1.6	1.6
Gross fixed capital formation	193	4.4	4.5	4.5	4.5	4.5
Capital transfers	11	0.3	0.3	0.3	0.3	0.3
Other	223	5.1	5.4	5.4	5.3	5.2
Total expenditure	2,163	49.4	49.6	49.3	48.6	47.9
Government consumption (nominal)	1,144	26.1	26.3	25.9	25.6	25.2

Sources: Statistics Sweden and own calculations.

### Table C.2b Revenue and expenditure forecasts

Per cent of GDP if not otherwise stated

	SEK billions	2016	2017	2018	2019	2020
	2016					
Total revenue	2,203	50.3	49.9	49.9	50.0	50.0
Total expenditure	2,163	49.4	49.6	49.3	48.6	47.9

Sources: Statistics Sweden and own calculations.

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

Per cent of GDP if not otherwise stated

	SEK billions	2016	2017	2018	2019	2020
	2016					
Expenditure on EU programmes fully matched by EU funds revenue	2	0.0	0.0	0.0	0.0	0.0
Of which investments	0	0.0	0.0	0.0	0.0	0.0
Cyclical expenditure changes due to higher unemployment <sup>1</sup>	0	0.0	0.0	0.0	0.0	0.0
Effects of discretionary revenue measures	34	0.8	0.1	0.0	0.0	0.0
Revenue increases mandated by law	–	–	–	–	–	–

<sup>1</sup> Change in comparison with preceding year.

Sources: Statistics Sweden and own calculations.

### Table C.3 General government expenditure by function

Per cent of GDP

	COFOG code	2015
General public services	1	7.1
Defence	2	1.1
Public order and safety	3	1.3
Economic affairs	4	4.2
Environmental protection	5	0.3
Housing and community amenities	6	0.7
Health	7	7.0
Recreation, culture and religion	8	1.1
Education	9	6.6
Social protection	10	21.0
<b>Total expenditure</b>		<b>50.5</b>

Sources: Statistics Sweden and own calculations.

**Table C.4 General government consolidated gross debt developments**

Per cent of GDP

	2016	2017	2018	2019	2020
Consolidated gross debt	41.6	39.5	37.3	34.7	31.4
Change in gross debt ratio	-2.4	-2.0	-2.2	-2.6	-3.3
<b>Contribution to changes in gross debt</b>					
Primary balance	-1.3	-0.7	-1.1	-1.9	-2.7
Interest expenditure	0.4	0.4	0.5	0.5	0.5
Stock-flow adjustment	0.5	0.1	-0.2	0.2	0.3
<i>of which</i>					
Accruals of interest and taxes	-0.9	0.2	0.0	0.2	0.3
Privatisation proceeds	0.0	-0.1	-0.1	-0.1	-0.1
Other	1.5	0.0	-0.1	0.2	0.1
Implicit interest rate on gross debt	1.0	1.1	1.4	1.5	1.6

Sources: Statistics Sweden and own calculations.

**Table C.5 Cyclical developments**

Per cent of GDP if not otherwise stated

	2016	2017	2018	2019	2020
GDP growth (%)	3.3	2.6	2.1	2.0	2.5
General government net lending	0.9	0.3	0.6	1.4	2.1
Interest expenditure	0.6	0.6	0.7	0.7	0.7
One-off and other temporary measures	0.1	0.0	0.0	0.0	0.0
Potential GDP growth (%)	2.1	2.3	2.3	2.3	2.3
Output gap	-0.1	0.5	0.4	0.1	0.0
Cyclical budgetary component	-0.3	0.0	-0.1	0.0	0.0
Cyclically adjusted balance	1.2	0.3	0.6	1.4	2.2
Cyclically adjusted primary balance	1.8	1.0	1.4	2.2	2.9
Structural balance	1.0	0.3	0.6	1.4	2.2

Sources: Statistics Sweden and own calculations.

**Table C.6 Divergence from previous update**

	2016	2017	2018	2019	2020
<b>GDP growth (%)</b>					
Previous update	3,8	2,2	1,8	2,1	--
Current update	3.3	2.6	2.1	2.0	2.5
Difference	-0,5	0,4	0,3	-0,1	--
<b>General government net lending (% of GDP)</b>					
Previous update	-0.4	-0.7	-0.4	0.1	--
Current update	0.9	0.3	0.6	1.4	2.1
Difference	1.4	0.9	0.9	1.3	--
<b>General government gross debt (% of GDP)</b>					
Previous update	42.5	41.1	40.3	39.1	--
Current update	41.6	39.5	37.3	34.7	31.4
Difference	-0.9	-1.5	-3.0	-4.4	--

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
<b>Total expenditure</b>	<b>49.4</b>	<b>48.7</b>	<b>47.0</b>	<b>48.0</b>	<b>47.1</b>	<b>45.4</b>	<b>45.4</b>
<i>of which</i>							
Age-related expenditure	34.2	34.5	33.3	33.8	33.6	32.7	33.5
<i>of which</i>							
Pension expenditure	8.0	7.8	7.6	7.4	7.4	7.2	7.6
<i>of which</i>							
Gurantee pension	0.5	0.4	0.3	0.4	0.6	0.7	0.9
Old-age pensions	6.2	6.2	6.3	5.9	5.7	5.4	5.6
Other pensions (disability and survivors')	0.7	0.5	0.4	0.4	0.4	0.4	0.4
Occupational pensions (if in general government)	0.6	0.6	0.6	0.7	0.7	0.7	0.7
Healthcare	5.9	6.1	6.0	6.1	6.0	5.9	5.9
Long-term care	4.1	4.2	4.1	4.7	5.0	5.2	5.6
Educational expenditure	5.1	5.0	4.9	4.9	4.7	4.4	4.3
Other age-related expenditures	8.5	8.8	8.4	8.4	8.2	8.0	7.9
Interest expenditure	1.1	0.5	0.5	0.7	0.2	0.0	0.0
<b>Total revenue</b>	<b>49.3</b>	<b>49.0</b>	<b>49.1</b>	<b>50.1</b>	<b>49.8</b>	<b>49.5</b>	<b>49.6</b>
<i>of which</i>							
Income from capital	1.8	1.5	1.5	2.5	2.5	3.0	3.5
<i>of which</i>							
Pensions system	0.7	0.7	0.7	1.1	1.1	1.4	1.5
Assets in the pensions system	25.5	29.8	30.2	29.8	31.1	36.8	43.6
<i>of which</i>							
Consolidated assets in the pensions system (assets other than sovereign debt)	23.8	28.6	29.3	29.4	31.0	35.0	42.1
<b>Assumptions</b>							
Labour productivity, business sector	4.7	3.2	1.9	2.2	2.2	2.2	2.2
GDP growth	6.0	4.1	2.5	2.2	2.3	2.2	2.2
Unemployment rate	8.6	7.4	6.2	6.7	7.0	6.6	6.3
Population aged 65+ as a proportion of the total population	18.3	19.7	20.1	21.3	22.7	23.1	24.8

Sources: Statistics Sweden and own calculations.

**Table C.7a Contingent liabilities**

Per cent of GDP

	2016
<b>Public guarantees</b>	<b>46.7</b>

Sources: Statistics Sweden and own calculations.

**Table C.8 Basic assumptions**

Annual average if not otherwise stated

	2016	2017	2018	2019	2020
6-month interest rate	-0.6	-0.6	-0.3	0.3	1.1
10-year government bond yield	0.5	1.0	1.7	2.4	3.0
USD/EUR exchange rate	1.1	1.1	1.1	1.1	1.1
SEK/EUR exchange rate	9.5	9.4	9.3	9.2	9.2
World GDP growth <sup>1</sup>	3.1	3.4	3.6	3.7	3.8
EU GDP growth <sup>1</sup>	1.8	1.8	1.8	1.7	1.7
World market growth <sup>1</sup>	2.3	4.1	4.4	4.3	4.2
World import volumes, excluding EU					
Oil price (Brent USD/barrel)	44	56	56	55	55

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

Sources: Statistics Sweden and own calculations.

**Government Offices of Sweden**

Ministry of Finance

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