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Country Report Sweden 2019
Including an In-Depth Review on the prevention and correction of macroeconomic imbalances

Accompanying the document

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN CENTRAL BANK AND THE EUROGROUP

2019 European Semester: Assessment of progress on structural reforms, prevention and correction of macroeconomic imbalances, and results of in-depth reviews under Regulation (EU) No 1176/2011

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CONTENTS

Executive summary 4

1. Economic situation and outlook 7

2. Progress with country-specific recommendations 13

3. Overall findings regarding imbalances, risks and adjustment issues 16

4. Reform priorities 21

4.1. Public finances and taxation 21
4.2. Financial sector and housing market 24
4.3. Labour market, education and pillar policies 37
4.4. Competitiveness reforms and investment 45

Annex A: Overview Table 53

Annex B: Commission Debt Sustainability Analysis and fiscal risks 56

Annex C: Standard Tables 57

Annex D: Investment Guidance on Cohesion Policy Funding 2021-2027 for Sweden 63

References 66

LIST OF TABLES

Table 1.1: Key economic and financial indicators – Sweden 12
Table 2.1: Summary table on CSR assessment 14
Table 3.1: MIP assessment matrix (*) — Sweden 2019 19
Table 4.2.1: Financial soundness indicators, all banks in Sweden 25
Table C.1: Financial market indicators 57
Table C.2: Headline Social Scoreboard indicators 58
Table C.3: Labour market and education indicators 59
Table C.4: Social inclusion and health indicators 60
Table C.5: Product market performance and policy indicators 61
Table C.6: Green growth 62

LIST OF GRAPHS

Graph 1.1:	Output gap, real GDP growth and its components	7
Graph 1.2:	Contributions to potential growth	8
Graph 1.3:	Labour shortages in the economy	9
Graph 1.4:	Relative change in working-age population due to increased inflows of asylum seekers between 2014 and 2017 in Europe	9
Graph 1.5:	Breakdown of rate of change of unit labour costs (ULC)	10
Graph 1.6:	Real Effective Exchange Rate based on unit labour costs	10
Graph 1.7:	Net international investment position	11
Graph 2.1:	Overall multiannual implementation of 2011-2018 CSRs to date	13
Graph 4.1.1:	Swedish fiscal rules and MTBF and EU average	21
Graph 4.1.2:	Impact of fiscal rules and MTBF on the cyclically-adjusted primary budget balance	22
Graph 4.1.3:	Swedish fiscal rules index and government gross debt	22
Graph 4.2.1:	House prices by market segment (nominal)	26
Graph 4.2.2:	Estimated house price valuation gaps based on different indicators	27
Graph 4.2.3:	Revenues from property taxes	28
Graph 4.2.4:	Housing starts, including net conversions, versus projected need	28
Graph 4.2.5:	Construction sentiment: overall confidence indicator and expectations component	29
Graph 4.2.6:	Labour and material cost evolution in new residential construction (total % rise between 2015-2018Q2; not annualised)	29
Graph 4.2.7:	Time on waiting list before obtaining primary tenancy in greater Stockholm (distribution by number of years)	30
Graph 4.2.8:	Household debt evolution (indexed, 2005=100)	32
Graph 4.2.9:	Share of new mortgage borrowers by debt-to-disposable-income ratio	33
Graph 4.2.10:	Amortisation rate for mortgages	33
Graph 4.2.11:	Year-on-year growth rate in mortgages and unsecured loans to households	34
Graph 4.2.12:	Household financial assets (*) and stock market index	35
Graph 4.2.13:	Breakdown of corporate debt by funding source	36
Graph 4.2.14:	Leverage indicators for non-financial corporations	36
Graph 4.3.1:	Activity, employment and unemployment rates	37
Graph 4.3.2:	Unemployment rate by educational attainment	37
Graph 4.3.3:	Employment rate by citizenship	39
Graph 4.3.4:	At-risk-of-poverty or social exclusion rate and its components	40
Graph 4.3.5:	Proportion of low achievers in OECD PISA (2015)	41
Graph 4.3.6:	Proportion of graduates by programme orientation (2016)	43
Graph 4.4.1:	Cumulative export market share loss since 2007 for Sweden and selected peer countries	45
Graph 4.4.2:	Gross fixed capital formation (% of GDP)	46

LIST OF BOXES

Box 2.1: EU funds and programmes contribute to addressing structural challenges and to fostering growth and competitiveness in Sweden 15
Box 4.3.1: Monitoring performance in light of the European Pillar of Social Rights 38
Box 4.4.1: Investment challenges and reforms in Sweden 48

EXECUTIVE SUMMARY

Sweden's overall economic performance remains healthy, but mounting risks highlight the importance of addressing structural weaknesses. The housing shortage, long a key challenge, is the result of insufficient new housing construction compounded by demographic developments. Boosting construction in appropriate locations and market segments could help alleviate this. A more market-oriented rental housing sector could also help, and would underpin mobility and flexibility in the labour market. Tax incentives for property ownership and mortgage debt are aggravating the problems of growing household debt and overvalued house prices. Addressing these issues would make the Swedish economy more resilient and reduce risks posed by imbalances ([1]).

Economic activity remains solid but is expected to moderate. According to the Commission's winter 2019 interim forecast, real GDP grew by 2.1 % in 2017 and is set to have increased by 2.2 % in 2018. With the global economy slowing down and residential investment in Sweden starting to fall, economic activity is set to shift to a lower gear. Real GDP growth is expected to slow over the forecast period and reach 1.7 % in 2020. Over the longer run, potential growth is expected to remain below pre-crisis levels in light of continued modest productivity growth, in line with global developments.

Sweden's external position continues to be strong. Growth in goods exports remained solid in 2018. Imports rose strongly, however, due to strong domestic demand resulting in a lower current account surplus. Exports of goods and services are likely to expand by around 3 % in 2019-2020 against the backdrop of trade tensions and as growth in Sweden's main trading partners eases. The current account surplus is forecast to stabilise at around 3 % of GDP.

Investment growth is slowing as residential investment adjusts to lower levels. A fall in housing prices in the second half of 2017 is expected to reduce the construction of new housing, dampening growth in investment. In addition, investment in equipment is set to lose speed as trade-related uncertainty weighs on external demand and adds to already lacklustre business sentiment.

The labour market is performing well but faces challenges. Sweden has one of the highest employment rates in the EU (83.3 % in Q3 2018) and the Commission's autumn 2018 forecast expects unemployment to level out at 6.2 % in 2019-2020. At the same time, labour shortages and skills mismatches, where the jobs available do not match the skills of the jobless, prevent unemployment from falling much further. A major challenge will be to successfully integrate non-EU migrants into the labour force in a way that will benefit growth in the long term.

The fiscal position is strong. In 2017, the general government overall surplus was 1.6 % of GDP. A smaller surplus of around 1 % of GDP is expected for 2018, and this should decline to 0.8 % of GDP in 2020 as the economy slows. Public debt is set to continue declining due to prudent fiscal management and a strengthened fiscal framework.

Monetary policy is normalising, due to inflation picking up somewhat from previous lows. Monetary policy has remained accommodative for years due to low inflation. After an increase in core inflation in 2018, the Riksbank began increasing its benchmark interest rate in late 2018 and has announced that further rate hikes could follow.

Strengthening investment ([2]) in new housing, education and skills could further enhance Sweden's long-term growth potential. It would also be beneficial to maintain investment in transport infrastructure and innovation. The investment rate in Sweden has stood well above the EU average for the last decade; nevertheless, some parts of the economy could benefit from

([1]) This report assesses Sweden's economy in the light of the European Commission's Annual Growth Survey published on 21 November 2018. In the survey, the Commission calls on EU Member States to implement reforms to make the European economy more productive, resilient and inclusive. In doing so, Member States should focus their efforts on the three elements of the virtuous triangle of economic policy — delivering high-quality investment, focusing reforms efforts on productivity growth, inclusiveness and institutional quality and ensuring macroeconomic stability and sound public finances. At the same time, the Commission published the Alert Mechanism Report (AMR) that initiated the eighth round of the macroeconomic imbalance procedure. The AMR found that Sweden warranted an in-depth review, which is presented in this report.

([2]) Both private and public investment.

more investment. A structural undersupply remains in the housing market, despite a significant increase in new construction over the past 5 years. In the education system, demographic developments will lead to an increase in the number of pupils, while the country already faces a teacher shortage. Investment in education and skills will also be crucial to help boost productivity growth and address the skills mismatch in some parts of the labour market. Finally, there is a need to maintain investment in transport infrastructure and Research and Development at high levels to support long-term productivity growth and to fully exploit business potential. Annex D identifies key priorities for support by the European Regional Development Fund and the European Social Fund Plus over 2021-2027, building on the analysis of investment needs and challenges outlined in this report.

Sweden has made limited ([3]) progress in addressing the 2018 country-specific recommendation.

There has been some progress in the following area:

- Sweden is moving forward with policy steps to stimulate residential construction. This includes the gradual implementation of the '22-point plan' for the housing sector, as well as measures to boost foreign competition in the construction sector (see Section 4.2.2).

There has been limited progress in the following area:

- In January 2019, the Swedish authorities announced that reforms will be prepared to make the rent-setting system more flexible. There are also plans to make deferred capital gains taxes on sold properties in the owner-occupancy market interest-free.

There has been no progress in the following areas:

- No progress has been made on reforming the favourable tax treatment of mortgage debt and home ownership.

([3]) Information on the level of progress and actions taken to address the policy advice in each respective subpart of a CSR is presented in the overview table in the Annex.

Regarding progress towards its national targets under the Europe 2020 strategy, Sweden continues to perform well in the following indicators: employment rate, greenhouse gas emissions, share of renewable energy, tertiary education attainment and poverty risks. Areas where progress remains relatively weak are early school leaving, energy efficiency and Research and Development targets.

Sweden performs well on the indicators of the Social Scoreboard supporting the European Pillar of Social Rights. The employment rate is high, while the gender employment gap and the share of young people not in employment, education or training are at low levels. Positive outcomes, such as the level of digital skills and impact of social transfers on poverty reduction reflect an advanced welfare model with a strong social dialogue.

The main findings of the in-depth review contained in this report and the related policy challenges are as follows:

- **While banks are healthy, some vulnerabilities are linked to their growing exposure to the real estate market.** Banks remain profitable. The regulatory capital adequacy ratios are healthy, though they decreased at end 2018 due to changes in the calculation of banks' risk-weighted assets. The major Swedish banks showed resilience in the 2018 stress test conducted by the European Banking Authority. The banks' high level of lending to the real estate market remains a key risk and households remain vulnerable to an adjustment in the housing market and an increase in interest rates. Moreover, since Swedish banking groups are of systemic importance for all countries in the Nordic-Baltic financial market, any shock to the banking sector could have a wider impact on neighbouring countries.

- **Household indebtedness has continued to rise from already high levels.** Household debt grew by 5.5 % in 2018, reaching about 88 % of GDP and 186 % of disposable income, which is among the highest in the EU. This was driven mainly by higher mortgage borrowing linked to high house prices, coupled with structural distortions favouring mortgage-financed

property purchases. Sweden has implemented several macro-prudential measures in recent years, including a strengthened repayment rule for high debt-to-income mortgages in force since March 2018, and a decision to raise the countercyclical capital buffer for banks from September 2019. However, the policy steps taken so far appear to have had limited overall impact on the growth of mortgage lending.

- **While house prices declined in late 2017 and have since been broadly stable, this follows a long period of strong price rises, and valuations remain well above fundamentals.** Key issues include tax incentives favouring home ownership and mortgage debt, and accommodative credit conditions coupled with still relatively low mortgage repayment rates. Despite a sharp rise in new construction, a shortage remains, particularly of affordable homes around major cities. This shortage is linked to structural inefficiencies, such as limited competition in the construction sector. The housing stock is not used efficiently. In the rental market, below-market rents create lock-in and 'insider/outsider' effects. In the owner-occupancy market, capital gains taxes reduce homeowner mobility. The housing shortage makes it harder for people to change jobs and can contribute to intergenerational inequality.

- **The continued increase in household debt and bank residential mortgages are a growing risk to macroeconomic stability.** Despite gradual policy action, mortgage debt continues to grow. With the housing market still appearing overvalued, even after the declines in autumn 2017, rising indebtedness means there is a growing risk of a disorderly correction. This could have an adverse impact on the economy and potentially the banking sector.

Other key structural issues analysed in this country report, which point to particular challenges facing the Swedish economy, are the following:

- **Despite favourable economic conditions, some population groups have difficulties finding a job.** Sweden is a top performer in the EU for high employment and low long-term unemployment rates. Challenges remain, however, such as the integration of low-skilled people and non-EU migrants into the labour market. This challenge is likely to remain in the coming years in the light of number and composition of the arrival of asylum seekers who arrived in late 2015. Efforts have been made to improve their employability for instance via the 'Introduction job' (*Introduktionsjobb*) programme.

- **The educational performance gap between different social groups is large and widening**. Despite recent measures, the education system does not appear to promote quality education for all. The integration of foreign-born migrant pupils warrants close monitoring. Another challenge is the growing shortage of teachers.

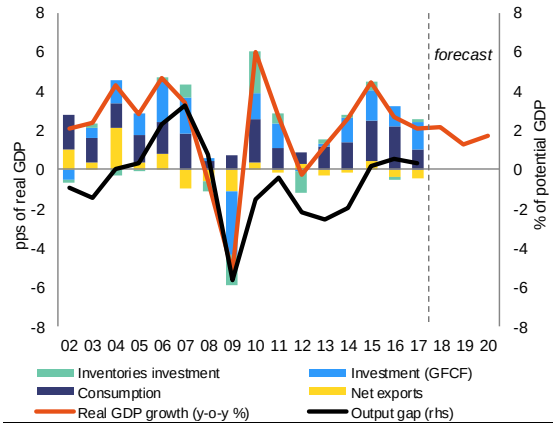
- **The economy benefits from a favourable business environment, although specific barriers to investment and long-term growth remain.** The country performs well in terms of efficient public administration, access to finance for small and medium-sized enterprises, and innovation and internationalisation by businesses. However, investment and innovation could benefit from a closer cooperation between academia and business.

1. ECONOMIC SITUATION AND OUTLOOK

GDP growth

Economic activity remains solid. Real GDP grew by 2.1 % in 2017 and is expected to have increased by 2.2 % in 2018, according to the Commission's winter 2019 interim forecast. Domestic demand was the main growth driver, benefiting from the continued accommodative monetary policy and growing employment, which is supporting consumption. The growth contribution of net exports was modest and imports remained strong (Graph 1.1).

Graph 1.1: **Output gap, real GDP growth and its components (1)**



(1) Forecasts for 2018-2020 are based on a no-policy-change assumption
Source: European Commission

After years of robust growth, GDP is forecast to moderate. With the global economy entering a lower-growth period and residential investment in Sweden starting to fall, economic activity is set to slow down. Real GDP growth is projected to slow to 1.3 % in 2019 before picking up somewhat to 1.7 % in 2020, close to the economy's potential of around 2 %.

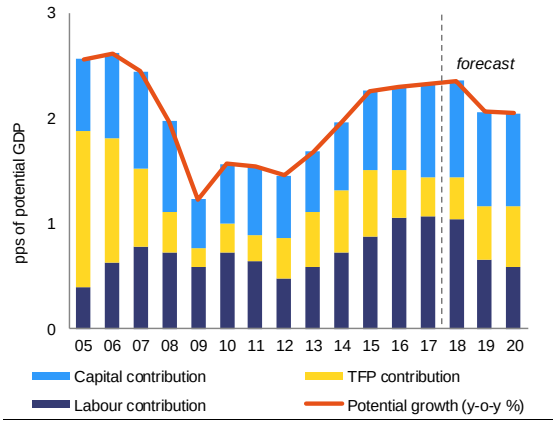
Residential investment, a key growth driver, is expected to adjust to lower levels. After a peak in mid-2017 house prices declined in the second half of the year and have remained largely unchanged. The decline had a negative impact on sentiment in the construction sector and new housing starts are expected to fall holding back investment growth. In addition, investment in equipment is set to lose speed as trade-related uncertainty weighs on external demand and adds to already lacklustre business sentiment. Overall, investment growth is forecast to slow markedly until 2020.

Public and private consumption growth is set to remain moderate. In 2018 private consumption was supported by high employment gains. Over 2019-2020, however, it is forecast to grow less as employment growth is set to slow given the already high level of labour force participation. Public consumption is projected to have increased by close to 1 % in 2018 due to municipalities having been given more resources to employ additional staff and to improve the delivery of welfare services and education. Assuming no policy change, public consumption is expected to grow at around the same pace in the coming years.

Potential growth

Potential growth has recovered but is expected to be below pre-crisis levels. In the wake of the crisis, recovery in potential output growth was mainly due to the rising contribution of labour thanks to increasing participation among the young, old, and foreign born (Graph 1.2). However, the labour contribution is expected to fall as migration levels taper off from their 2015 peak and also due to negative demographics. The contribution of total factor productivity is projected to remain modest and below pre-crisis levels, in line with global developments, weighing on potential growth while capital accumulation is expected to remain stable.

Graph 1.2: **Contributions to potential growth (1) (2)**



(1) Forecasts for 2018-2020 are based on a no-policy-change assumption
(2)TFP: total factor productivity
Source: European Commission (Autumn forecast 2018)

Inflation and monetary policy

Headline inflation is not yet firmly anchored but core inflation is set to increase gradually. In 2018, higher import prices resulting from the depreciation of the Swedish krona, surging energy prices and a pick-up in unprocessed food prices (due to unusually dry weather in 2018) pushed inflation above the Riksbank 2 % target in the second half of the year. As these temporary factors fade away, the harmonised consumer price index is expected to grow at 1.7 % in 2019 before edging down to 1.6 % in 2020. Core inflation (excluding food and energy) is set to increase from slightly above 1 % on average in 2018 to around 1.5 % in 2020.

With inflationary pressures rising, the Riksbank increased its repo rate in late 2018. Monetary policy has remained accommodative for years now, as low inflation prompted a postponement of rate hikes. The Riksbank had kept its repo rate unchanged at -0.5 % since February 2016. In December 2018, the Riksbank raised the repo rate by 0.25 percentage points and announced that subject to inflation prospects rate hikes of about 0.25 percentage points once or twice a year could be expected. Such a gradual increase would keep the real repo rate negative for the next two years. While in the past the low nominal interest rate environment was one factor behind the increase in household debt and house prices, a gradual reversal, with rising debt servicing costs, could have a dampening effect on credit growth and consumer spending (see Section 4.2.3).

Private indebtedness

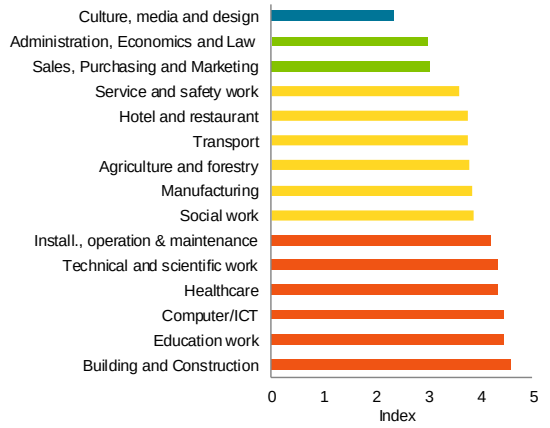
Household debt continued to rise, increasing by 5.5 % year-on-year in December 2018. While this is a continued gradual slowdown from its peak growth rate of close to 8 % around mid-2016, it remains well above nominal income growth (see Section 4.2.3). Overall, household debt stood at 186 % of disposable income or about 88 % of GDP in Q3 2018, among the highest levels in the EU. Importantly, the distribution of debt among households is becoming increasingly uneven, with the fraction of new mortgage borrowers with very high debt-to-disposable income ratios above e.g. 600 % growing to 17.2 % in 2017 (vs. 16.4 % in 2016, and about 12 % in 2013).

Labour market

The Swedish labour market continues to perform well. Sweden has one of the highest employment rates in the EU (83.3 % in Q3 2018), and employment growth is set to remain solid. Unemployment has been below the EU average and is expected to level out at 6.2 % in 2019-2020 according to the Commission's autumn 2018 forecast. Long-term unemployment remained low at 1.2 % in 2017. Youth unemployment continued to decline and the proportion of young people not in employment, education or training decreased to 6.2 % in 2017.

At the same time, labour shortages and skills mismatches prevent unemployment from falling much further. Labour force participation continued to increase in 2017 and 2018. However, labour shortages are rising despite the increase in labour supply. The Public Employment Service forecasts a continuing shortage of labour in the coming years in roughly 150 out of the 200 professions it covers. These professions include ones requiring higher levels of educations such as engineers, teachers, IT specialists and persons working in the health sector. Moreover, the employment rate of low-skilled people remains low, which indicates potential skills mismatches (Graph 1.3). Unemployment is therefore set to stabilise at around 6.2 % in 2019-2020.

Graph 1.3: **Labour shortages in the economy (1)**

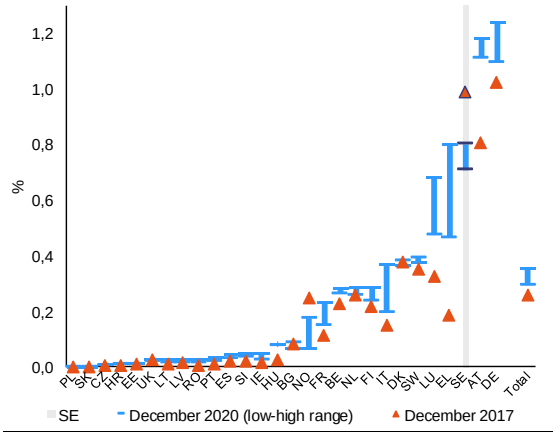


(1) The index consists of a weighted average based on a survey of roughly 11 000 employers from the private sector, municipal authorities and county councils. The degree of shortage ranges from 1.00 = excessive labour supply to 5.00 = pronounced labour shortage.
Source: Public Employment Office

Migration is the main factor driving the growth of the labour force. In 2016 net migration to Sweden reached over 117 000, the highest on record. In 2017, however, it dropped to just below 99 000. This was linked to temporary border controls and the temporary migration act of 2016 which the new government intends to extend by two years (until the end of 2021) to examine the future migration policy in a parliamentary inquiry. The participation rate of migrants in the labour force increased by around 1.3 percentage points in 2017 (OECD, 2018d). The OECD estimates that refugee arrivals will have a positive effect on the labour force, with at least a 0.5 % increase cumulatively between 2017 and 2020. In addition, the net positive effect on the working-age population may reach at least 0.8 % cumulatively between 2017 and 2020 (Graph 1.4) ([4]). Without migration, the labour force and ultimately potential GDP would be negatively affected. According to the International Monetary Fund (IMF) (Hilgenstock, 2018), a no-migration scenario in Sweden would lead to a decline in labour force participation of around six percentage points in 2015-2050.

([4]) The relative change in working-age population is the difference between the estimated refugee working-age population, accounting for increased inflows since January 2014, and the counterfactual (i.e. assuming that asylum applications in 2014-20 remain equal to the 2011-13 average), divided by the total working-age population in December 2013. Up to December 2017, observed data on asylum applications and decisions are used; for 2018-20, it is assumed that asylum applications are either equal to the 2011-13 average or to the 2017 average, generating the December 2020 low-high range.

Graph 1.4: **Relative change in working-age population due to increased inflows of asylum seekers between 2014 and 2017 in Europe (1, 2)**



(1) EU-28 countries, Norway and Switzerland
(2) See footnote 4 for details on the estimation methodology
Sources: Eurostat, OECD estimates

The successful integration of non-EU migrants into the labour force is key to ensuring benefits to long-term growth and fiscal sustainability. Migration helps maintain the population and labour force growth in the face of an ageing population since it tends to be concentrated among younger and economically active age groups. Half of those who immigrated between 2006 and 2017 have post-secondary education, which is higher than among migrants who immigrated before 2006 and people born in Sweden. Persons who immigrated in the last twelve years have a younger age structure than the population aged 25-64 years as a whole, which can partly explain the high level of education compared to the Swedish population (Statistics Sweden, 2018c). The Swedish authorities have identified finding jobs or training places for migrants as a key priority and have taken steps to reduce asymmetries in the labour market between foreign born and native born (see Section 4.3.1).

Inequality

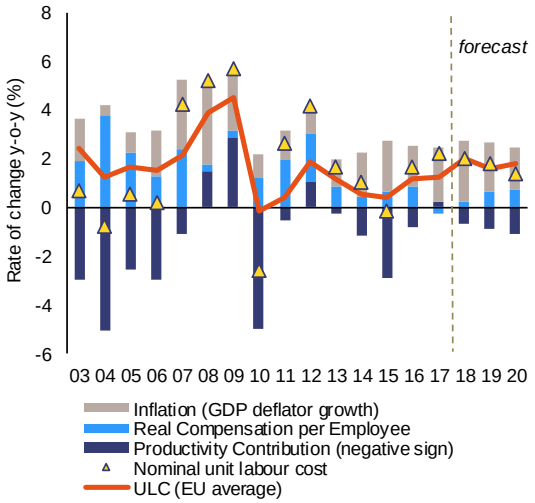
Inequality and poverty levels are low. The incomes of the richest 20 % of the population were around 4.3 times higher than the incomes of the poorest 20 % in 2017. The distribution of market incomes is relatively equal, due to compressed

wage distribution. In addition, taxes and transfers have an equalising effect, which is among the largest in the EU (58.5 % in 2016). The share of people at risk of poverty or social exclusion is lower than the EU average. The share of people in severe material deprivation and the share of people living in low work intensity households have not decreased despite rising employment.

Competitiveness

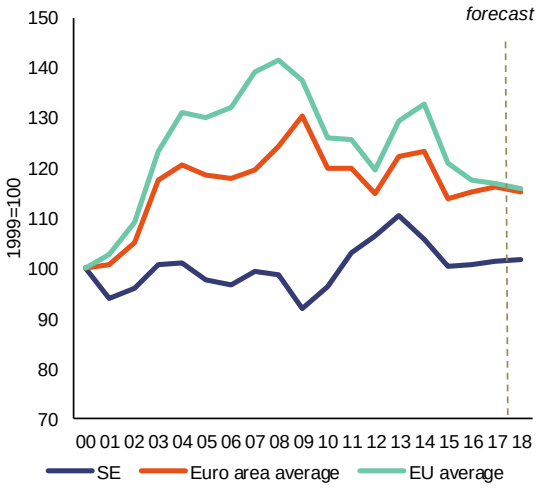
Contained wage growth has supported the economy's competitiveness. In 2017, the industrial sector, exposed to foreign competition, agreed to a 2.2 % annual increase in wages for 2017-2019. Wage growth for the economy remained stable averaging around 2.4 % in 2017-2018 despite a tightening labour market and expectations of rising inflation. Unit labour costs (ULC) have broadly followed trends in labour productivity and are around the EU average (Graph 1.5), thus safeguarding competitiveness. Accordingly, the ULC-based real effective exchange rate depreciated during the same period (Graph 1.6). The new negotiation round for 2020-2023 is expected to result in moderate wage increases, which should preserve cost competitiveness. Conversely, nominal unit labour costs are expected to rise by 1.8 % in 2019 and 1.3 % in 2020.

Graph 1.5: **Breakdown of rate of change of unit labour costs (ULC)**



Source: European Commission

Graph 1.6: **Real Effective Exchange Rate based on unit labour costs**



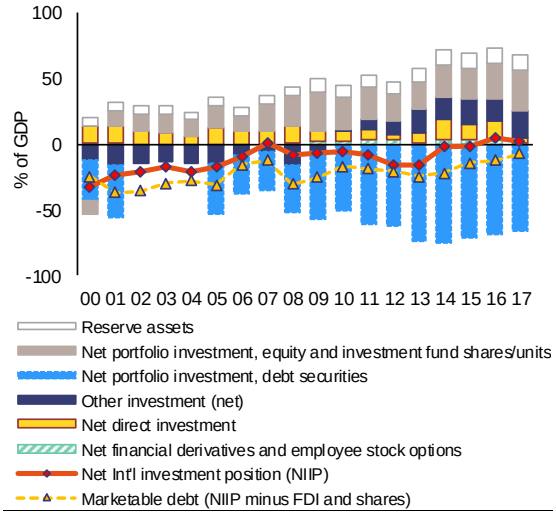
Source: European Commission

External position

Despite continued current account surpluses, the net international investment position is only slightly positive. It is expected that the current account surplus will have declined from 3.6 % in 2017 to an estimated 3.2 % of GDP in 2018. The surplus largely reflects government and household savings as well as merchanting activities of multinational enterprises ([5]). However, the net international investment position is only slightly positive, well below the sum of past current account surpluses. This is primarily due to persistent net portfolio investment in debt securities, especially of non-financial corporations, but may partly reflect valuation effects and measurement errors which suggest that the net international investment position could be underestimated (Graph 1.7) (European Commission, 2016a, pp. 13-14).

([5]) See European Commission (2018a).

Graph 1.7: **Net international investment position**



Source: European Commission

Public finances

The fiscal position has remained strong. At the end of 2017, revenue collection, surprised on the upside, underpinned by solid economic growth. As a result, the general government headline surplus was 1.6 % of GDP in 2017, well above the budget initially planned for 2017, implying a structural surplus of 1.4 % of GDP. As revenues are forecast to have reverted to more normal performance, a smaller surplus of around 1 % of GDP is expected for 2018. The headline surplus should decline to 0.8 % of GDP in 2020, as the economy slows.

Public debt is expected to continue declining. Strong economic growth, primary budget surpluses and prudent fiscal management have brought about a decline in the general government gross debt in recent years. This trend is set to continue with the debt-to-GDP ratio projected to fall to 33.5 % in 2020, significantly below the reference value of 60 % of GDP agreed in the Treaty (see also Section 4.1).

Table 1.1: **Key economic and financial indicators – Sweden (1), (2), (3)**

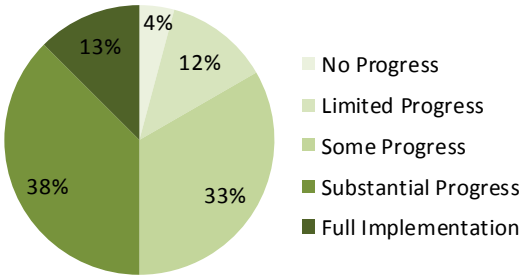
						forecast		
	2004-07	2008-12	2013-15	2016	2017	2018	2019	2020
Real GDP (y-o-y)	3.8	0.5	2.8	2.7	2.1	2.2	1.3	1.7
Potential growth (y-o-y)	2.6	1.6	2.0	2.3	2.3	2.4	2.1	2.0
Private consumption (y-o-y)	3.0	1.4	2.4	2.9	2.2	.	.	.
Public consumption (y-o-y)	0.6	1.4	1.7	3.6	0.0	.	.	.
Gross fixed capital formation (y-o-y)	7.1	-0.5	4.2	4.2	6.0	.	.	.
Exports of goods and services (y-o-y)	7.6	0.9	3.3	3.0	3.2	.	.	.
Imports of goods and services (y-o-y)	7.4	1.6	3.8	4.3	4.8	.	.	.
Contribution to GDP growth:								
Domestic demand (y-o-y)	3.1	0.9	2.5	3.2	2.4	.	.	.
Inventories (y-o-y)	0.1	-0.1	0.3	-0.1	0.1	.	.	.
Net exports (y-o-y)	0.6	-0.2	0.0	-0.4	-0.5	.	.	.
Contribution to potential GDP growth:								
Total Labour (hours) (y-o-y)	0.5	0.6	0.7	1.1	1.1	1.0	0.7	0.6
Capital accumulation (y-o-y)	0.8	0.6	0.7	0.8	0.9	0.9	0.9	0.9
Total factor productivity (y-o-y)	1.3	0.3	0.6	0.4	0.4	0.4	0.5	0.6
Output gap	1.5	-1.8	-1.5	0.5	0.3	0.3	0.0	-0.2
Unemployment rate	7.1	7.8	7.8	6.9	6.7	6.3	6.2	6.2
GDP deflator (y-o-y)	1.5	1.8	1.6	1.6	2.3	2.5	2.0	1.8
Harmonised index of consumer prices (HICP, y-o-y)	1.3	1.9	0.4	1.1	1.9	2.0	1.7	1.6
Nominal compensation per employee (y-o-y)	3.9	3.0	2.3	2.5	2.0	2.7	2.7	2.5
Labour productivity (real, person employed, y-o-y)	2.9	0.0	1.5	0.8	-0.2	.	.	.
Unit labour costs (ULC, whole economy, y-o-y)	1.0	3.0	0.8	1.7	2.2	2.0	1.8	1.3
Real unit labour costs (y-o-y)	-0.5	1.2	-0.8	0.0	0.0	-0.5	-0.2	-0.4
Real effective exchange rate (ULC, y-o-y)	-0.3	1.4	-2.3	0.6	0.8	-4.3	-0.7	-0.7
Real effective exchange rate (HICP, y-o-y)	-0.8	0.0	-2.8	0.9	-0.7	-3.9	-0.9	-0.6
Savings rate of households (net saving as percentage of net disposable income)	7.0	12.3	15.5	16.0	15.1	.	.	.
Private credit flow, consolidated (% of GDP)	12.7	7.9	5.6	7.5	13.1	.	.	.
Private sector debt, consolidated (% of GDP)	154.5	192.8	192.8	188.2	194.4	.	.	.
of which household debt, consolidated (% of GDP)	61.7	76.1	83.0	86.2	88.2	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	92.8	116.7	109.8	102.0	106.2	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (2)	.	.	1.0	1.1	1.1	.	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	3.4	0.9	-1.8	-4.0	-3.7	-4.0	-3.7	-3.4
Corporations, gross operating surplus (% of GDP)	24.9	23.9	23.8	24.1	23.9	24.2	24.4	24.6
Households, net lending (+) or net borrowing (-) (% of GDP)	1.8	5.1	7.2	6.6	5.8	6.0	5.5	5.2
Deflated house price index (y-o-y)	9.7	1.3	8.3	7.5	4.6	.	.	.
Residential investment (% of GDP)	3.8	3.6	4.0	5.1	5.7	.	.	.
Current account balance (% of GDP), balance of payments	7.1	6.2	4.7	3.8	3.2	3.2	3.0	2.9
Trade balance (% of GDP), balance of payments	6.7	5.2	4.8	4.5	3.4	.	.	.
Terms of trade of goods and services (y-o-y)	-0.5	-0.1	0.4	0.5	-0.6	-0.9	-0.5	-0.2
Capital account balance (% of GDP)	-0.2	-0.2	-0.2	-0.1	-0.1	.	.	.
Net international investment position (% of GDP)	-11.9	-9.0	-7.4	0.1	4.4	.	.	.
NIIP excluding non-defaultable instruments (% of GDP) (1)	-21.5	-22.4	-20.1	-12.2	-7.3	.	.	.
IIP liabilities excluding non-defaultable instruments (% of GDP) (1)	123.3	155.4	165.2	157.0	165.8	.	.	.
Export performance vs. advanced countries (% change over 5 years)	6.5	-4.9	-7.7	-10.5	-8.7	.	.	.
Export market share, goods and services (y-o-y)	.	.	-1.1	1.9	-3.1	.	.	.
Net FDI flows (% of GDP)	2.3	2.5	2.3	-1.2	2.1	.	.	.
General government balance (% of GDP)	1.9	0.0	-0.9	1.1	1.5	1.1	0.9	0.8
Structural budget balance (% of GDP)	.	.	-0.1	0.8	1.3	0.9	0.9	1.0
General government gross debt (% of GDP)	45.3	38.7	43.4	42.4	40.8	37.8	35.5	33.5
Tax-to-GDP ratio (%) (3)	46.3	43.8	43.4	44.8	44.9	44.5	44.3	44.2
Tax rate for a single person earning the average wage (%)	30.3	25.4	24.7	24.9	.	.	.	.
Tax rate for a single person earning 50% of the average wage (%)	26.0	20.4	19.9	20.1	.	.	.	.

(1) NIIP excluding direct investment and portfolio equity shares
(2) domestic banking groups and stand-alone banks, EU and non-EU foreign-controlled subsidiaries and EU and non-EU foreign-controlled branches.
(3) The tax-to-GDP indicator includes imputed social contributions and hence differs from the tax-to-GDP indicator used in the section on taxation.
Source: Eurostat and ECB as of 31-1-2019, where available; European Commission for forecast figures (Winter forecast 2019 for real GDP and HICP, Autumn forecast 2018 otherwise)

2. PROGRESS WITH COUNTRY-SPECIFIC RECOMMENDATIONS

Since the start of the European Semester in 2011, 84 % of all country-specific recommendations addressed to Sweden have recorded at least 'some progress'.([6]) 16 % of these CSRs recorded 'limited' or 'no progress' (Graph 2.1). Substantial progress and full implementation have been achieved in several policy areas, in particular fiscal governance and research and innovation. Limited progress has been achieved in implementing housing market and household debt related CSRs.

Graph 2.1: **Overall multiannual implementation of 2011-2018 CSRs to date (1)**



(1) The overall assessment of the country-specific recommendations related to fiscal policy exclude compliance with the Stability and Growth Pact.
(2) 2011-2012: Different CSR assessment categories.
(3) The multiannual CSR assessment looks at the implementation since the CSRs were first adopted until February 2019.
Source: European Commission

Sweden has been able to preserve a sound fiscal position. This has ensured compliance with the medium-term budgetary objective and is keeping debt on a declining path well below the Treaty threshold.

For the labour market, the government achieved some progress in improving the employment situation of young people. In particular, it has adopted measures to strengthen apprenticeships and other types of work-based vocational education.

Since 2011, the country has received a recommendation each year related to its high and persistently rising household debt and house prices. The authorities have taken a number of policy steps to help rein in mortgage debt and house price growth and the associated risk to the broader economy and the financial system.

The focus has mainly been on macro-prudential measures and steps to tackle housing supply bottlenecks. Macro-prudential measures include a loan-to-value ceiling of 85 % for mortgages in 2010, raising banks' risk weight floors for mortgages in 2013 and 2014, introducing a formal mortgage amortisation requirement in June 2016, followed by a strengthened amortisation rule for high-debt-to-income borrowers in March 2018 (see Section 4.2.3). Sweden also strengthened the legal mandate of the macro-prudential authority in February 2018. These steps have improved the resilience of the banking sector (see Section 4.2.1), but have not been able to rein in household debt growth (see Section 4.2.3). The authorities have also introduced measures to streamline building and planning regulations and have provided some budgetary support to municipalities to encourage more construction. While this has resulted in a significant pick-up in construction, the current level is still below anticipated demand, particularly in major cities (see Section 4.2.2).

Sweden has made limited ([7]) progress in addressing its 2018 country-specific recommendation (CSR). Some policy steps have been taken in response to the recommendation (which is relevant for the macroeconomic imbalance procedure (MIP), see Section 3). However, implementation has been uneven and key areas are left unaddressed. For the housing market, Sweden is moving forward with policy steps to promote more construction, including the gradual implementation of the '22-point plan' for the housing sector, as well as measures to boost foreign competition in the construction sector (see Section 4.2.3). Additionally, in January 2019, the new government announced that reforms will be prepared to make the rent-setting system more flexible. There are also plans to make deferred capital gains taxes on sold properties in the owner-occupancy market interest-free. However, no progress has been made on reforming mortgage

([6]) For the assessment of other reforms implemented in the past, see in particular Section 4.

([7]) Information on the level of progress and actions taken to address the policy advice in each respective subpart of a country-specific recommendation is presented in the overview table in the Annex. This overall assessment does not include an assessment of compliance with the Stability and Growth Pact.

interest deductibility or recalibrating recurrent property taxes.

Table 2.1: **Summary table on CSR assessment**

Sweden	**Overall assessment of progress with 2018 CSRs: Limited**
CSR 1: *Address risks related to high household debt by gradually reducing the tax deductibility of mortgage interest payments or increasing recurrent property taxes. Stimulate residential construction where shortages are most pressing, notably by removing structural obstacles to construction, and improve the efficiency of the housing market, including by introducing more flexibility in setting rental prices and revising the design of the capital gains tax.* (MIP relevant)	**Limited progress** • No progress on limiting mortgage interest tax deductibility or increasing recurrent property taxes • Some progress on stimulating residential construction • Limited progress on introducing more flexibility in setting rental prices and revising the design of the capital gains tax

Source: European Commission

Box 2.1: EU funds and programmes contribute to addressing structural challenges and to fostering growth and competitiveness in Sweden

Sweden continues to benefit from the European Structural and Investment Funds (ESI Funds) and can receive up to EUR 3.6 billion until 2020. This represents around 2.7 % of public investment[1] over 2014-2018. By 31 December 2018, around 64 % had been allocated to projects. This has helped more than 40 000 companies strengthen their competitive edge. Examples of project areas are internationalisation, business development, incubation and new entrepreneurship.

ESI Funds help address structural policy challenges. Programmes supported by ESI Funds are helping to create strong innovation environments, clusters and accessibility of research resources for industry. Sweden uses the ESI Funds to implement smart specialisation strategies in all eight regions by involving over 5 600 enterprises that will cooperate with research institutes to develop marketable products. EUR 400 million supports the transition to a low-carbon economy. The European Regional Development Fund (ERDF) in Sweden has proven to be a very good example of how to use the funds for integration of third-country nationals. The focus has been on helping migrants start businesses or get jobs in the business sector. Dedicated calls for proposals are used for the implementation. Several projects have been approved and are progressing well. Individuals also receive support from the ESI Funds. EUR 808 million from the European Social Fund (ESF) are used to strengthen their employability through skills development and training. Following the recent influx of refugees and immigrants to Sweden, the ESI Funds have helped local authorities and other actors to provide more individually-adapted training and employability support. More than 110 000 persons have benefited from different ESF-funded projects.

The Commission can provide tailor-made technical support upon a Member State's request via the Structural Reform Support Programme to help Member States implement growth-sustaining reforms to address challenges identified in the European Semester process or other national reforms. Sweden, for example, has started receiving support for the implementation of the corporate-income-tax gap assessment methodology.

EU funding contributes to mobilisation of private investment. Financial instruments are implemented through one National fund-in-fund (EUR 23.1 million to stimulate more private venture capital funds in early stages, have closer collaboration with the private sector and avoid regional limitations), eight regional venture capital funds (EUR 74 million) and a new National 'green fund' for early stage investments in companies promoting the transition to a low-carbon economy (EUR 38.7 million). In addition, Sweden is advancing the take-up of the European Fund for Strategic Investments (EFSI). The European Investment Bank with EFSI backing, approved operations with an overall volume of EUR 2.7 billion, which is set to trigger a total of EUR 10.5 billion in additional private and public investments. So far, 35 projects[2] have been approved under the infrastructure and innovation window of the EFSI (EUR 2.4 billion in total financing, supporting EUR 9.2 billion in investments). Under the SME component, 11 agreements with intermediary banks have been approved (EUR 330 million, mobilising around EUR 1.2 billion of total investment). 9 398 SMEs and mid-cap companies are expected to benefit from this support. One notable example is 'Handiscover', a Swedish start-up dedicated to helping people with physical disabilities find and book suitable travel and accommodation. Handiscover secured a loan from Almi Företagspartner and is backed by the European Investment Fund.

Funding under Horizon 2020, the Connecting Europe Facility and other directly-managed EU funds is additional to the ESI Funds. By the end of 2018, Sweden has signed agreements for 57 projects under the Connecting Europe Facility with Swedish beneficiaries receiving EUR 298.1 million in funding, and investing a total of EUR 709.7 million in these projects. Horizon 2020 contributed another EUR 1.26 billion.

https://cohesiondata.ec.europa.eu/countries/SE

[1] Public investment is defined as gross fixed capital formation + investment grants + national expenditure on agriculture and fisheries.
[2] Among which 19 are multi-country projects.

3. OVERALL FINDINGS REGARDING IMBALANCES, RISKS AND ADJUSTMENT ISSUES

The 2019 Alert Mechanism Report concluded that a new in-depth review should be undertaken for Sweden to assess the persistence or unwinding of the imbalances (European Commission, 2018b). In winter 2018, Sweden was identified as having macroeconomic imbalances (European Commission, 2018i). The imbalances identified related in particular to elevated house prices coupled with a continued rise in household debt. This chapter summarises the findings of the analyses in the context of the MIP in-depth review that is contained in various sections in this report. ([8])

3.1. IMBALANCES AND THEIR GRAVITY

Private-sector debt stands at 194 % of GDP, among the highest in Europe. Both households (88 % of GDP as of Q3 2018) and non-financial corporations (111 % of GDP as of Q3 2018) have high debt levels compared to other EU countries and are also above debt benchmarks developed by the European Commission. Household debt is a particular source of concern. Driven primarily by mortgage lending, it has risen rapidly and persistently, outpacing GDP growth for over two decades now. Although households own significant assets, these are generally illiquid and their value is exposed to market risks. Moreover, the distribution of debt across households is uneven, and there is a significant fraction of borrowers with large debt-to-income ratios, particularly among younger households and those buying properties in major cities (see 'Household debt developments' in Section 4.2.3).

Corporate debt, while elevated, is matched by high equity cushions and corporate savings levels. Despite the significant stock of debt, financial risks remain limited overall thanks to healthy financial positions, in particular a low degree of balance sheet leverage and strong profitability. Moreover, external funding exposure, while growing, remains limited: domestic loans, which have proved resilient during the crisis, still constitute the main funding source for non-financial corporations (see 'Corporate debt developments' in Section 4.2.3).

Growing household debt coupled with elevated house prices makes the Swedish economy vulnerable to shocks. Swedish house prices have risen steadily for almost two decades, although in autumn 2017 the market experienced a gradual decline followed by stabilisation over the course of 2018. Strong fundamentals, in particular robust disposable income and population growth, can explain part of Sweden's historical house price growth, but several indicators such as price-to-income (affordability) and price-to-rent (dividend) ratios suggest that house prices are above their historical trend. Distortive taxation and structural supply-side inefficiencies in the housing market contribute to this overvaluation (see Section 4.2.2).

The banking sector is solid, but it could be vulnerable in the event of a potential abrupt fall in real estate prices. Banks' assets have performed well so far and the sector has high profitability compared to its peers in other EU countries. However, banks rely to a large extent on international wholesale funding, giving rise to some degree of maturity mismatch. Risk weights generated by their internal models are low and might not fully reflect the underlying risks in banks' exposure to household mortgages. Banks also have significant exposure to the commercial real estate sector. Consequently, in a severe housing market or commercial property slump, these vulnerabilities could have repercussions for the wider economy and the financial system. Due to the importance of Swedish banks in the region, other Nordic economies might also be affected (see Section 4.2.1).

3.2. EVOLUTION, PROSPECTS, AND POLICY RESPONSES

While overall private debt has roughly stabilised relative to GDP, household debt remains on an upward trajectory. It grew at 5.5 % year-on-year in nominal terms as of December 2018. This represents a continued gradual deceleration from its peak growth rate of

([8]) Analyses relevant for the in-depth review can be found in the following sections: the banking sector in Section 4.2.1; the housing market in Section 4.2.2; and private indebtedness in Section 4.2.3.

about 8 % around mid-2017, but remains well above economic and income growth. The increase in mortgage lending is driven by the lagged effect of house price rises in prior years, coupled with structural factors favouring (mortgage-financed) property investment, notably mortgage interest tax deductibility, variable rates and long maturities for mortgages. In light of the structural nature of some of these drivers, it appears likely that household debt will continue to outpace income growth over the medium term.

The authorities have gradually taken some policy action to curb household debt growth. After first introducing a formal mortgage amortisation requirement in 2016, in March 2018 Sweden implemented a stricter amortisation rule specifically targeting borrowing at high-debt-to-income levels. In addition, the Swedish Parliament (*Riksdag*) strengthened the legal mandate of the macro-prudential authority, the Financial Supervisory Authority (*Finansinspektionen*). The new mandate came into force in February 2018 and allows the authority to respond in a more timely manner, using a wider range of potential measures, to the risks associated with growing household debt. The Financial Supervisory Authority has also further raised the counter-cyclical capital buffer requirement for banks to 2.5 %; this will come in force in September 2019.

So far, however, these measures have had a limited impact on household debt growth, and key policy gaps remain. Sweden has one of the highest tax incentives for home ownership in the EU, due to relatively low property taxes and high mortgage interest rate deductibility, while the design of capital gains tax limits a more efficient use of the housing stock. These tax incentives contribute to the problem of persistent household debt growth.

Following a period of post-crisis deleveraging, corporate debt growth has again picked up. Non-financial corporate debt relative to GDP fell by about 25 percentage points between 2009 and 2016. This has mostly been the result of 'passive' deleveraging, with positive net credit flows to firms being outweighed by growth and inflation. However, since early 2017, net corporate debt has again started outpacing economic growth, due to highly favourable credit conditions and overall still robust confidence levels among companies. Domestic bank loans remain the main funding source of firms, followed by international bond markets (see 'Corporate debt developments' in Section 4.2.3). While this allows for funding alternatives, a higher share of bond market financing could in some cases expose firms more to volatility and stress in the financial markets.

Swedish banking groups have a substantial and growing exposure to household mortgages, while being supported by sufficient capital buffers. The near-term risks of household debt service problems seem limited, given low debt service costs and sizeable household budget margins. However, stretched housing market valuations combined with high debt levels make the household sector vulnerable to shocks. If, for instance, mortgage interest rates were to rise significantly, or if incomes were hit due to an external shock to the economy, households could be forced to rapidly reduce consumption levels. Moreover, as Swedish banks are reliant on wholesale funding, a downturn in the housing market could result in a sudden rise in bank funding costs, thus amplifying the impact of any domestic housing market adjustment. Supervisors are mindful of such risks.

Following a long period of virtually uninterrupted strong growth, house prices fell in autumn 2017 and stabilised well below their peak. Real house prices have more than tripled over the past two decades, significantly outpacing income growth. Unlike most European countries, Sweden had no major adjustment in house prices around the 2008-2009 financial crisis. While the 2017 price declines were significant in absolute terms, real house prices have only moved back to roughly their end-2016 level. Valuation indicators continue to suggest that house prices remain high relative to fundamentals. Thus, the recent episode of market weakness should not detract from the broader concerns that Sweden's elevated house prices contribute to macroeconomic stability risks.

Policy action focused on curbing housing demand via macro-prudential measures, combined with steps to stimulate new construction. Since 2010, Sweden has gradually introduced a number of macroprudential measures (see above), aimed at containing mortgage growth and thus housing demand. The authorities have also proceeded with the gradual implementation of

the '22-point plan' for the housing market and similar measures to stimulate more construction.

Some key structural distortions in the housing market have not yet been addressed. In particular, no policy action has been taken to reform the tax incentives for home ownership and mortgage debt (see above). Similarly, so far there have been no concrete policy steps to liberalise tight rental market regulations and revise the capital tax on owner-occupied homes, although in January 2019 the new government announced plans to introduce reforms in these areas, subject to preparatory inquiry work (see 'Policy developments' in Section 4.2.2). In addition, there remains scope to further tackle the lack of land available for development, complex planning and building regulations, limited incentives for municipalities to support new construction and limited competition in the construction sector (see 'Supply-side issues' in Section 4.2.2).

3.3. OVERALL ASSESSMENT

Sweden faces sources of imbalances in the form of high private debt and overvalued house prices. The elevated private indebtedness, in particular of households, makes the economy vulnerable to macroeconomic shocks (see 'Risks and policy response' in Section 4.2.3). Such a shock could trigger deleveraging, potentially leading to harmful adjustment, with lower consumption and investment. Although house prices have stabilised well below their 2017 peak, they continue to appear overvalued. In the event of a large, disorderly downturn in the housing market, there is a risk of negative spillover effects acting on other Nordic countries through the financial system.

Policy measures to address these imbalances have so far been insufficient. The authorities have gradually taken some policy action to curb household debt growth in recent years, but this appears to have had limited impact on indebtedness growth. In addition, some key structural issues in the housing market have not been addressed. Overall, policy gaps remain for housing-related taxation, the functioning of housing supply and of the rental market.

Table 3.1: **MIP assessment matrix (*) — Sweden 2019**

	Gravity of the challenge	Evolution and prospects	Policy response
	Imbalances (unsustainable trends, vulnerabilities and associated risks)		
Private debt (see Section 4.2.3)	Sweden continues to have one of the highest levels of private debt in the EU, at well over 190 % of GDP. High private indebtedness increases the country's vulnerability to macroeconomic shocks, as subsequent deleveraging may lead to sharp corrections in consumption and investment. Household debt is a particular concern; it stood at 186 % of disposable income and 88 % of GDP as of Q3 2018 (about 10 percentage points above the Commission's prudential benchmark, and 14 percentage points above the fundamental benchmark). Households have good repayment ability and assets, but the distribution of debt and assets is uneven and a large part of household assets is exposed to liquidity and/or market risks.	Household debt has grown at a nominal rate in the range of about 5 to 8 % per year since the start of this decade, significantly outpacing GDP growth. This trend continued in 2018, with household debt reaching over 186 % of disposable income as of Q3 2018. The Riksbank projects that household debt will rise to over 190 % of disposable income by 2021.	An enhanced legal framework for the macroprudential authority was made operational in February 2018, allowing the authority to respond in a more timely manner and use a wider range of measures to address the risks associated with growing household debt. In March 2018, a strengthened mortgage amortisation requirement for households borrowing more than 450 % of their gross income came into force, raising the mandatory amortisation rate for new borrowers in this category by 1 percentage point per annum. Policy gaps remain regarding the incentives to take on mortgage debt. The full and unconditional tax deductibility of mortgage interest payments and the low ceiling on recurrent property taxation have not been reformed.
	Corporate debt is relatively high compared to other EU countries, but it is matched by the high value of corporate assets and significant equity cushions. It mainly reflects a large share of international companies. Exposure to external financing is high.	Corporate debt has remained broadly stable, while firms continue to 'passively' deleverage.	
	Banks are well capitalised, non-performing loans remain among the lowest in the EU, and profitability is among the highest. These indicators somewhat mitigate, but do not fully offset, risks stemming from high private sector indebtedness. The reliance of Swedish banks on wholesale funding could amplify the impact of a sharp housing adjustment.	Banks are increasingly exposed to the real estate market: loans to households and non-financial corporations holding real estate have increased further, and constitute about 80 % of the major banks' total lending, 75 % of which is mortgage loans to households.	The enhanced legal framework for the macroprudential authority and the enhanced amortisation requirement (see above) contribute to strengthening the banking sector's resilience.

(Continued on the next page)

Table (continued)

	Swedish banks serve a large share of the market in the Nordic-Baltic countries, thus representing a source of possible spillovers in the event of sudden deleveraging needs. (See Section 4.2.1).	At the same time, bank's capital buffers have continued to grow, due to lower average risk weighting of bank assets.	Additionally, in September 2018, the macroprudential authority announced that the countercyclical buffer rate for banks will rise from 2 to 2.5 percent from September 2019. This is intended to further strengthen banking sector resilience.
Housing sector (see Section 4.2.2)	In spite of significant price declines in the autumn of 2017, Swedish house prices continue to appear significantly overvalued. Price-to-income and price-to-rent ratios were about 45-65 % above their long-term average as of end-2017. A model-based estimate suggests prices are about 12 % above fundamentally justified levels (but this partly reflects exceptionally low interest rates). These valuation gaps are among the highest in the EU. High house prices are due to a combination of structural bottlenecks to housing supply, especially in the main urban areas, combined with favourable tax treatment of home ownership and mortgage debt. Overvalued house prices combined with a large mortgage debt stock entail risks of a disorderly correction and adverse consequences for the real economy and potentially the banking sector.	Prior to the autumn 2017 correction, house prices had grown almost continuously over the last 20 years. After peaking at 12 % in 2015, real house price growth started tapering out, falling to 8 % in 2016 and 4.6 % in 2017. In 2018 and early 2019, house prices have broadly stabilised, remaining roughly flat to slightly higher. In spite of the autumn 2017 declines, prices remain higher than seems justified based on fundamentals, implying risks of a disorderly correction. The latter could be triggered by, for instance, an external shock or a rapid rise in mortgage interest rates. Housing investment has rebounded sharply over the period of 2013-2017 years, but construction output has started to decline in 2018 in the wake of the late-2017 house price falls, with further weakness likely in the near-term. Even at its recent peak, new housing supply still fell short of overall projected needs.	The Swedish authorities continue to gradually implement the "22-point plan" for the housing market, first launched in June 2016. This includes a range of initiatives to increase developable land availability, reduce construction costs and shorten planning process lead times, as well as some specific rental market reforms. In addition, Sweden proceeded with a measure to promote foreign competition in the construction sector by making info on building and planning regulations available in other languages on an online portal. However, policy gaps remain, in particular regarding complex planning and building regulations, revision of municipalities' incentives to support new construction, weak competition in the construction sector and the high level of rent control.

Conclusions from IDR analysis

- Sweden is characterised by important sources of stock imbalances in the form of high household debt associated with elevated house prices, which represents a risk as it exposes Sweden to potential adverse shocks and a possible disorderly correction with harmful implications for the real economy and the banking sector and possible spillovers to countries with a strong presence of Swedish banks.
- Household indebtedness keeps growing. House prices have experienced a correction in the autumn 2017, followed by gradual stabilisation in 2018, but remain at levels that appear out of line with fundamentals.
- Some measures have been taken in recent years to address rising household debt, especially in the area of macro-prudential policy. However, these measures have had limited impact so far in addressing underlying imbalances. Overall, policy gaps remain in the area of housing-related taxation and the functioning of housing supply and the rental market.

(1) The first column summarises 'gravity' issues which aim at providing an order of magnitude of the level of imbalances. The second column reports findings concerning the 'evolution and prospects' of imbalances. The third column reports recent and planned relevant measures. Findings are reported for each source of imbalance and adjustment issue. The final three paragraphs of the matrix summarise the overall challenges, in terms of gravity, developments and prospects, policy response.
Source: European Commission

4. REFORM PRIORITIES

4.1. PUBLIC FINANCES AND TAXATION

Public finances remain strong. Sweden is set to have achieved a general government surplus of 1.6 % of GDP and a structural surplus of 1.4 % of GDP in 2017. The debt-to-GDP ratio is expected to decline below the new 35 % debt anchor by 2020. With prudent fiscal policy in place, Sweden faces low fiscal sustainability risks in the medium to long term.

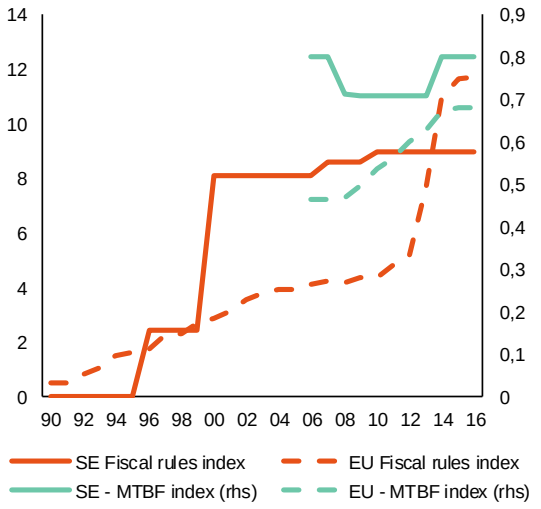
4.1.1. Fiscal framework

In 2019, revised rules came into force in Sweden to further strengthen its fiscal framework. The main improvements include the introduction of a new debt anchor and the strengthened mandate of the independent Fiscal Policy Council (*Finanspolitiska rådet*) to monitor fiscal rules and evaluate the official macro-forecasts (European Commission, 2018a).

Sweden adopted a fiscal framework already in 1997. In response to the economic crisis in the early 1990s, Sweden introduced a comprehensive fiscal framework, with broad political support, which substantially contributed to its effectiveness. The core elements included the introduction of numerical rules: (i) three-year expenditure ceilings binding for the next two years, (ii) a general government surplus target and (iii) a balanced-budget rule at the local level. In 2007 an independent Fiscal Policy Council was set-up to assess whether the government had achieved its fiscal and economic policy objectives, in particular long-term fiscal sustainability and consistency with the surplus target, the expenditure ceiling and the economy's cyclical position.

The Swedish fiscal framework has performed well. Using the Fiscal Rules and the Medium-term Budgetary Framework (MTBF) indices (European Commission, 2018d), which focus exclusively on design elements, Sweden was well-above the EU-average for most of the last 15 years (Graph 4.1.1)([9]). More recently, however, national fiscal frameworks in the EU – and euro area in particular – have greatly improved due to EU legislative initiatives. While this pushed up the EU average, the number and quality of fiscal rules in Sweden were broadly unchanged and therefore the country appears to have lost ground relative to its peers. This will likely change as of 2019 when the recent reforms partly addressing some of the new EU requirements will take effect. By contrast, the Swedish medium-term framework remains strong as the expenditure ceilings are binding for the first two years of the policy horizon and not revised yearly as it is the case in most Member States.

Graph 4.1.1: **Swedish fiscal rules and MTBF and EU average**



Source: European Commission's Fiscal Governance Database.

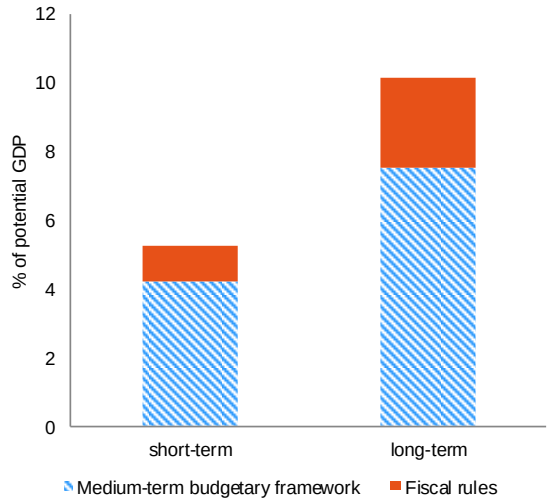
Overall, the fiscal framework has been successful in maintaining budgetary discipline and long-term fiscal sustainability in Sweden. Based on the European Commission estimates for the budgetary impact of fiscal rules and MTBFs (European Commission, 2018e), the Swedish fiscal framework is deemed to have contributed by about five percentage points of potential GDP in the short-term and 10 percentage points in the long-term (Graph 4.1.2) to fiscal consolidation of the primary budget surplus in cyclically-adjusted terms([10]). Government debt started to decline

([9]) These findings remain valid when looking at alternative numerical indicators, such as the IMF index. See https://www.imf.org/external/datamapper/fiscalrules/map/map.htm for the IMF Fiscal Rules dataset, based on which the IMF index is calculated.

([10]) The actual budgetary impact of the Swedish fiscal framework could be higher. First, the analysis only looks at two elements of the fiscal framework (i.e. fiscal rules and MTBF), and excludes e.g. factors in budgetary procedures and the overall quality of public finance among others.

following the introduction of the fiscal framework (Graph 4.1.3). From its peak in 1996, government debt had declined by about 25 percentage points of potential GDP by 2016, and the above estimates suggest that up to half of this decline can be attributed to the fiscal framework.

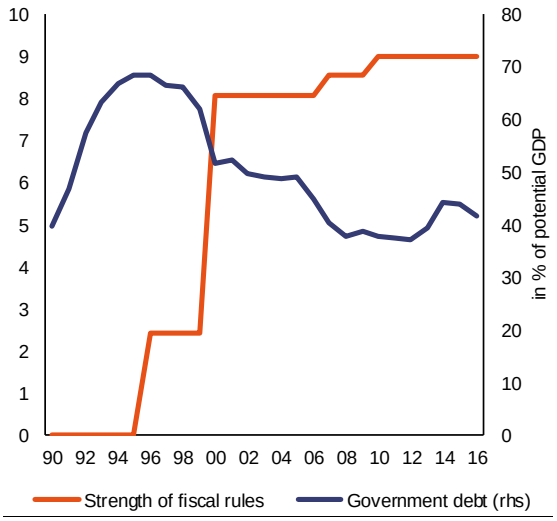
Graph 4.1.2: **Impact of fiscal rules and MTBF on the cyclically-adjusted primary budget balance**



Source: European Commission calculations based on European Commission (2018e).

Second, the estimates refer exclusively to the design of the framework and do not explicitly include elements of compliance. Given the strong political consensus behind the Swedish framework, it might have seen higher rates of compliance than the EU average, which would translate into higher impact of the framework than estimated here.

Graph 4.1.3: **Swedish fiscal rules index and government gross debt**



Sources: European Commission's Fiscal Governance Database and Ameco

4.1.2. Taxation developments

The general level of taxation remains above the EU average. The total tax burden is 44.4 % of GDP compared with the EU average 39.0 % of GDP. The overall labour tax burden is also high with the implicit tax rate at 40.4 % in 2017 above the EU average of 36.3 %. Low income earners at 50 % of the average wage face a particular high tax wedge, i.e. gap between labour costs and take-home pay.

The Riksdag rejected the 2019 caretaker government budget bill in favour of a slightly more expansionary proposal submitted by the opposition. The Swedish authorities estimate that the adopted 2019 budget implies a weakening of public finances by about SEK 29 billion in relation to 2018. Higher expenditure is included for defence, the police and the judiciary, while labour market policies and environmental policy are subject to some reductions. Income taxes will be cut in 2019: the basic income tax deduction for persons older than 65 is raised, and the earned income tax deduction is expanded in combination with an increase in the tax threshold for state income tax. As from 2020, the new government intends to abolish the five percent top income tax (*värnskatt*). Looking further ahead, it aims for a broad tax reform increasing Sweden's competitiveness and labour market participation rate through lowered income and corporate taxes.

Addressing tax incentives could help mitigate the build-up of household indebtedness. At present there are no concrete plans to revise rules regarding the mortgage interest deductibility or the recurrent property tax. Reforms in this area could contribute to a more favourable development of household debt (see Section 4.2) and would also have a favourable impact on income equality, particularly if the proceeds are used to reduce taxes on labour ([11]).

4.1.3. Debt sustainability analysis and fiscal risks

Sweden's government debt is expected to continue declining over the medium term. Sound fiscal management and strong economic performance under the Commission's baseline no-policy change scenario is projected to bring government debt close to 16 % of GDP in 2029 from 37.8 % of GDP in 2018, well below the 60 % of GDP Treaty reference value. The outlook for fiscal sustainability appears sound in the short, medium and long term (European Commission (2019a and Annex B).

Debt dynamics appear to be resilient to shocks. In all sensitivity test scenarios government debt remains on a downward trend. Debt-to-GDP at the end of the projections period (2029) in these scenarios is moderately higher than the baseline. In the worst case scenario, based on a shock to the exchange rate, gross public debt would reach 19 % of GDP in 2029.

Public expenditure on long-term care is projected to increase. Demographic changes imply that under current policies, spending on long-term care can be expected to increase significantly, from 3.2 % of GDP in 2016 (among the highest in the EU) to 4.9 % of GDP in 2070 (European Commission, 2018b). This corresponds to a 53 % increase, similar to the EU average. The share of the population that receives long-term care benefits is relatively high by EU standards, whereas the underlying level of need ([12]) is broadly in line with the EU average.

([11]) The new government has, however, announced its intention to abolish the interest rate payable for tax deferral of capital gains resulting from house sales, making it less costly to move houses.

([12]) Based on indicators such as the percentage of the population reporting a long-standing illness or health problem and the percentage of the population reporting severe limitations in daily activities.

4.2. FINANCIAL SECTOR AND HOUSING MARKET

4.2.1. BANKING SECTOR (*) ([13])

Overview

The Swedish banking sector is large and maintains strong profitability. The system's total assets, including foreign banks activities, represent around 300 % of GDP. Bank profitability still ranks among the highest in Europe with returns on equity averaging 9 %, helped by low funding costs and high cost efficiency. Favourable economic conditions translate into sustained lending to non-financial corporations and supported income from transaction fees.

Banks remain healthy with high-quality assets. In 2018 the average non-performing loan ratio remained one of the lowest in the EU. Customers' high repayment capacity and a strong reimbursement culture are among the main reasons for limited defaults and provide a potential shock-absorbing buffer to Swedish banks in the case of an economic slowdown.

Banks have a high exposure to the real estate sector. Almost 90 % of household lending consists of mortgages while commercial property, including tenant-owner associations, represents 55 % of lending to corporations. Developments on the real estate market therefore have a major impact on the financial position of banks (Finansinspektionen, 2018c).

Swedish banks rely to a large extent on wholesale funding. About 50 % of their loan book is funded by domestic deposits. The main additional funding source is the wholesale funding market, often accessed with covered bond issuances backed by residential mortgages.

New players have recently entered the Swedish mortgage markets. These are either loan brokers that connect borrowers with lenders, or non-bank lenders that grant mortgages to create and manage investment products on behalf of institutional investors. Although the volumes they are managing are small, they are competing with banks for mortgage customers and their importance could increase. This could be positive for financial stability if they use more stable funding sources than banks. However, the new business models remain untested in terms of sudden changes in economic conditions and could complicate macro-prudential policy (Sveriges Riksbank, 2018a).

The structure of the Swedish banking sector changed as Nordea relocated to Finland. In October 2018 the Nordea group moved its headquarter to Helsinki. Although the move has left Nordea's business operations in Sweden largely unaffected, it had important implications for supervisory responsibilities (see '*Key risks and policy responses'* below).

The calculation of banks' risk-weighted assets, and with it Swedish banks' capital ratios, has changed. The Financial Supervisory Authority (*Finansinspektionen*) revised the modalities for imposing a risk-weight-floor on residential mortgages for banks using internal risk models to be applied as of end 2018([14]). With this revision, the Authority intends to maintain a level playing field among banks in the domestic market for residential mortgages. Due largely to this change, the average Tier 1 ratio under the new rules will be substantially lower than the latest available official figure (22.6 % in Q2 2018, see Table 4.2.1). The revision brings the calculation of banks' capital ratios closer to prevailing practices in most EU Member States. However, even following these changes, the capital ratios of Swedish banks would remain relatively high compared to the EU average of 16.2 % ([15]).

([13]) An asterisk indicates that the analysis in the Section contributes to the in-depth review under the MIP (see Section 3 for an overall summary of main findings).

([14]) The measure shifts bank capital requirements for residential mortgages from the 'pillar 2' to the 'pillar 1'. The absolute amount of capital required does not change overall, but as only 'pillar 1' requirements contribute to risk weighted assets, the bank capital ratios are reduced. For further details, see European Commission (2018j).

([15]) This is to a large extent due to the extensive use of internal rating-based models which incorporate low historical defaults on large parts of the lending portfolio.

Table 4.2.1: **Financial soundness indicators, all banks in Sweden**

(%)	2013	2014	2015	2016	2017	2018Q2
Non-performing loans	-	1.3	1.3	1.2	1.3	1.3
Coverage ratio	63.0	26.0	26.9	26.1	26.4	24.3
Loan to deposit ratio*	201.9	201.0	195.8	192.3	188.0	185.7
Tier 1 ratio	11.5	19.2	21.0	22.7	23.0	22.6
Capital adequacy ratio	12.3	22.2	24.1	26.3	25.9	25.9
Return on equity**	11.1	11.8	11.2	11.9	10.9	-
Return on assets**	0.5	0.6	0.6	0.7	0.7	-

(*) European Central Bank aggregated balance sheet: loans excl. to government and Monetary Financial Institutions (MFI) / deposits excl. from government and MFI
(**) For comparability only annual values are presented
Source: European Central Bank

The major Swedish banks showed resilience in the 2018 stress test conducted by the European Banking Authority (EBA). Banks would have the ability to withstand a severe recession combined with falling real estate prices used in the exercise. Such a scenario had a limited impact on bank capital as the Common Equity Tier 1 would be reduced between 2.7 and 3.3 percentage points (European Banking Authority, 2018).

Key risks and policy responses

Banks' high exposure to the housing market is a key risk. Households remain vulnerable to an adjustment in the housing market and an increase in interest rates. Since about 70 % of household mortgages have been taken at variable interest rates, an increase would result in higher payments, lower consumption and potentially substantial repercussions for the overall economy and the financial system (see Section 4.2.3). This was also highlighted by the Riksbank (Sveriges Riksbank, 2018a) and the Financial Supervisory Authority (Finansinspektionen, 2018c).

A rise in interest rates could also result in higher funding costs and liquidity risks. Swedish banks rely on wholesale funding often held by international financial institutions. This reliance makes the system vulnerable because international wholesale funding is much more responsive to changes in interest rates compared to domestic deposits. Moreover, it can also quickly dry up should conditions of financial stress occur, creating a liquidity risk for Swedish banks (Finansinspektionen, 2018c).

Risks related to a strong commercial real estate market have become more prominent. Banks' lending to the commercial real estate sector has increased sharply the past years, and a large proportion of their lending has commercial property as collateral. So far commercial real estate companies have benefited from rising real estate prices and rental income. A change in this trend – due to a cooling economy for example – could affect incomes, credit quality and (in an extreme scenario) even financial stability in the event of a sudden market correction (given the size of the commercial property market in Sweden and its historic sensitivity to macro-financial shocks) (Finansinspektionen, 2018c).

Nordea's move has reduced the Swedish authorities' control and oversight of the bank. While Nordea's business operations in Sweden remain basically unchanged, the responsibility for the supervision and resolution has moved to the European Central Bank and Finnish supervisors ([16]). Against this backdrop, in 2017 the Swedish government launched a comprehensive analysis of the implications of joining the Banking Union, whose results are expected in November 2019.

The current differences in banking rules/regulations across the Nordic-Baltic region have resulted in increased cooperation. Recent developments, such as those related to the risk weight floor for residential mortgages and the fact that large financial institutions often operate in other countries via branches, have made it apparent that there is a need of coordination between macro-prudential authorities. Supervisors from the various countries are aware of potential spillover risks in the event of acute financial systemic stress and that the existing differences in legal frameworks must be taken into account ([17]). They are therefore already cooperating closely to enable an effective response when needed.

The Financial Supervisory Authority adopted additional macro-prudential measures to

([16]) For details see European Commission (2018a) and the article 'Consequences for financial stability of Nordea's relocation to Finland' in Sveriges Riksbank (2018b).

([17]) For example, there are differences in the way bank resolution might be applied within and outside the euro area (see Art. 44.8 of the Bank Recovery and Resolution Directive). Similarly, the risk-weight floor for residential mortgages can apply also to Nordea's branch active in Sweden only after reciprocation of the measure by the Finnish macro-prudential authority. Since reciprocation is voluntary it requires coordination by authorities on an ad hoc basis.

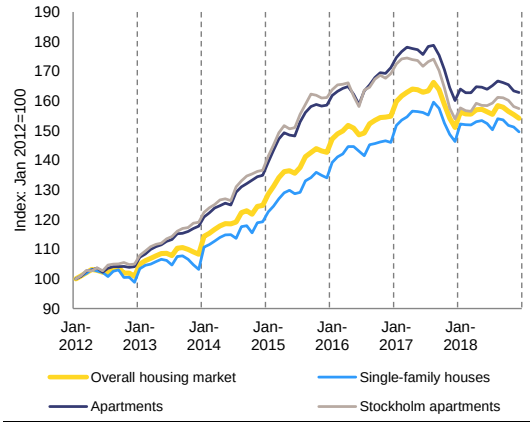
mitigate risks posed by increasing household indebtedness. A stricter amortisation requirement for new mortgage borrowers with high debt-to-income (DTI) levels came into force in March 2018. Under this requirement, households obtaining a mortgage with an overall debt level over 450 % of gross income (roughly equivalent to 630 % of after-tax disposable income) must amortise the mortgage principal by one percentage point per year. This applies on top of the already existing amortisation rule introduced in 2016. This brings the overall amortisation rate to a maximum of 3 % per year for households with very high DTI levels and loan-to-value rates higher than 70 %. From 2019 macro-prudential measures specifically applying to mortgages will apply also to new non-bank mortgage brokers. As of 19 September 2019, the countercyclical capital buffer for banks will also be raised from 2 to 2.5 % against the background of continued high credit growth and elevated systemic risk (Finansinspektionen, 2018d).

4.2.2. HOUSING MARKET (*)

Housing market developments

Following a sharp adjustment in late 2017, house prices have broadly stabilised. After two decades of largely uninterrupted price growth, the housing market slowed notably in 2017, culminating in a nominal price fall in the autumn of close to 10 % on average. This decline was probably triggered by a sharp rise in new-built supply in specific market segments, notably high-end apartments in Stockholm (Sveriges Riksbank, 2018a; European Commission, 2018a). Since 2018, prices have broadly held steady (Graph 4.2.1). As of December 2018, they stood at about 7 % below their 2017 highs. Transaction volumes have overall remained weak compared to 2016 and early 2017, and have fallen somewhat over the course of 2018. The recent stabilisation and structural factors supporting house prices (see below) point to broadly steady prices in the near-term. However, the continued supply overhang in higher-priced Stockholm apartments represents a significant downside risk.

Graph 4.2.1: **House prices by market segment (nominal)**

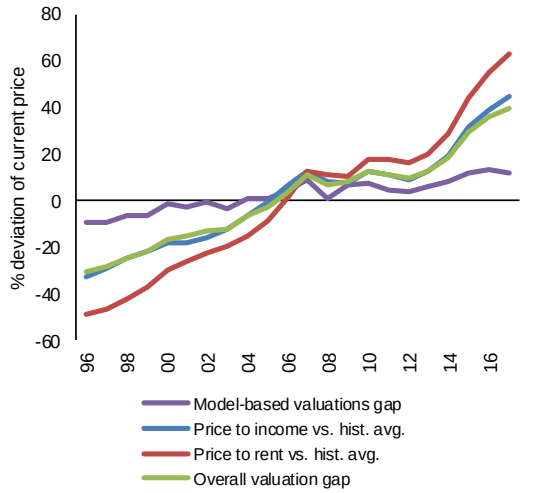


Source: Valueguard HOX house price index

While house prices remain below their peak, valuation indicators still suggest that they are overvalued. Fundamental drivers, in particular strong population and income growth and increasing urbanisation, supported house price growth in previous years (European Commission, 2016a), but cannot fully explain the current high levels. Fundamental-model-based estimates suggest that the housing market is overvalued by around 12 % ([18]) as of end-2017 (Graph 4.2.2). Other valuation indicators like price-to-income and price-to-rent ratios (measures of affordability and return-on-investment of owner-occupied houses) point to a sizeable valuation gap of about 45 % and 65 % respectively above their long-term averages. These estimated valuation gaps are among the highest in the EU. While such indicators are inevitably subject to some modelling uncertainty, they do underscore that the Swedish housing market is vulnerable.

([18]) This model-based valuation gap estimate may appear relatively small in comparison with the valuation metrics based on price-to-income and price-to-rent ratios. However, this is largely due to impact in the model of the current historically low level of mortgage interest rates, which itself could potentially change rapidly and significantly.

Graph 4.2.2: **Estimated house price valuation gaps based on different indicators (1)**



(1) Price-to-income and price-to-rent gaps are based on the percentage difference between these indicators and their long-term average (1998-2017)
(2) The model-based valuation gap is based on a proprietary house price model that reflects key fundamental drivers (including interest rates, demographics and construction output)
(3) Overall valuation gap is the average of the price-to-income, price-to-rent and model-based gap estimates.
Source: European Commission calculations

The recent housing market weakness has only made a modest dent in a long-standing upwards house price trend. After bottoming out following the banking crisis in the early 1990s, house prices have grown steeply and persistently. In real terms, they have more than tripled, significantly outpacing income growth as well as house price rises in other EU countries (European Commission, 2018a). While the 2017 price declines were significant in absolute terms, real house prices have only moved back to roughly their end-2016 level. Thus, the recent market weakness should not detract from the broader concerns that Sweden's elevated high house prices contribute to macroeconomic stability risks (see Sections 3, 4.2.1 and 4.2.3) and also have implications for social equality (see 'Inequality' in Section 1).

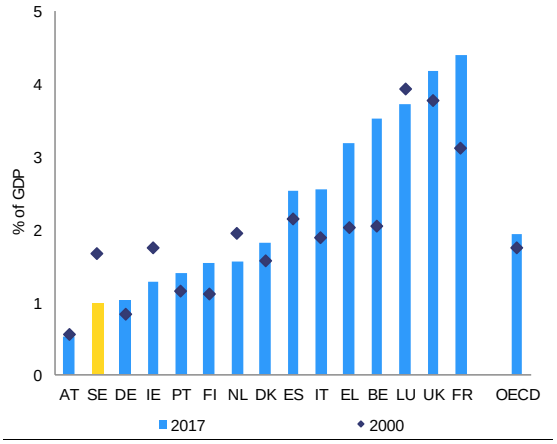
Demand-side issues

Not only low mortgage rates, but several structural features of the Swedish mortgage market have boosted housing demand. Monetary policy in Sweden has been highly accommodative. Although the Riksbank has raised the benchmark interest rate in December 2018, it remains negative, as it has been for over 3 years now (see Section 1). While low interest rates naturally act as a tailwind for the property market, in Sweden this effect has been magnified by a high share of variable-rate mortgages, long contract maturities and still generally low amortisation rates (see Section 4.2.3 for details). As a result, debt service costs relative to incomes have remained low, even as house prices and debt levels have continued to climb.

The Swedish tax system favours owner-occupied housing over other investments, particularly when financed by mortgage debt. Under the dual income tax system, returns from financial investments are normally taxed at a flat capital income rate of 30 %. However, imputed rents (the effective return to homeowners on their housing investment) are not taxed. Instead, property owners pay a local property fee (*kommunal fastighetsavgift*). This fee is capped at a low ceiling([19]), resulting in a highly favourable tax treatment of owner-occupied housing compared to other investments, and low overall tax revenues from property by international standards (Graph 4.2.3). Additionally, interest paid on mortgages is generally deductible at the 30 % capital income rate ([20]), providing an effective subsidy for mortgage debt. This further favours (debt-financed) home ownership, both over other investment opportunities and over rental housing, for which the overall tax burden is considerably higher (Statens Offentliga Utredningar (SOU), 2014).

([19]) The nominal tax rate of the local property fee is 0.75 % of assessed value for most houses and 0.3 % for apartments, but the tax is capped at a relatively low level (as of 2018, SEK 7 812 and SEK 1 337 per year for single-family houses and apartments respectively). In practice, therefore, most owners pay a flat fee that does not scale up with property value or imputed rent level.
([20]) If mortgage interest exceeds available capital income, the excess is applied as a credit against the labour income tax liability, at a credit rate of 30 % for losses up to SEK 100 000 (EUR 10 561) and 21 % above this amount. Sweden is one of the very few EU countries where this mortgage interest tax deduction is not capped at a fixed amount.

Graph 4.2.3: **Revenues from property taxes**



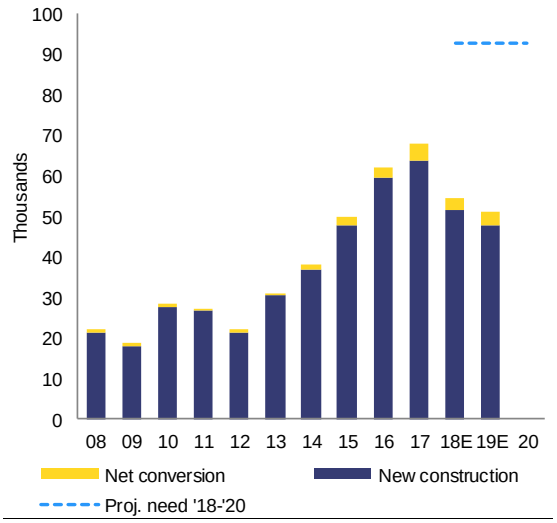
Source: OECD

Reforming the tax incentives for home ownership and mortgage debt could contribute to reducing inequality and benefit job creation. The impact of such tax reforms would be broadly progressive, as households benefiting the most from low recurrent property taxes and generous mortgage interest deductibility tend to be the higher-income ones (Finanspolitiska rådet, 2016). Moreover, the fiscal room created by such reforms could be used to ease the labour tax burden in an appropriately targeted way, thus facilitating job creation and further supporting social equality (European Commission, 2018a).

Supply-side issues

One of the key drivers of Sweden's elevated house price level is a structural undersupply of dwellings. Following the early-1990s banking crisis, residential construction activity in Sweden was muted for a prolonged period, in spite of strong population growth and rapid house price rises (European Commission, 2018a). More recently, new housing construction has accelerated notably and annual housing starts more than tripled from their 2012 low to a recent peak of about 64 000 in 2017 (Graph 4.2.4). However, even after this strong upswing, new housing supply failed to reach projected near-term needs, estimated at about 90 000 new homes per year for 2018-2020. Additionally, some of the new construction appears to attract limited demand (Katinic, G., 2018), and may thus have little immediate effect on the broader housing shortage.

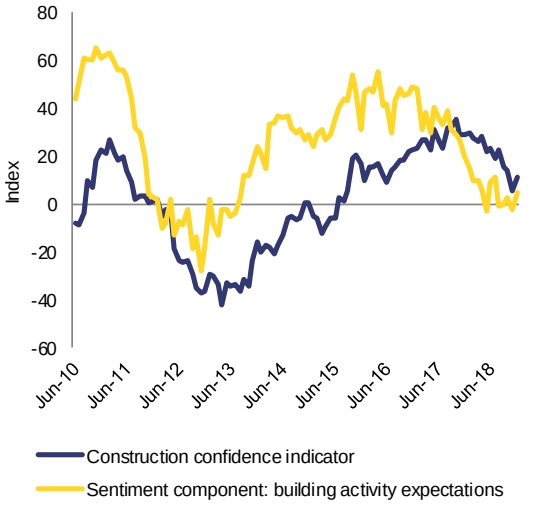
Graph 4.2.4: **Housing starts, including net conversions, versus projected need**



Source: Statistics Sweden (historical data until 2017); Boverket (estimates for 2018 and 2019, and projected need)

New housing construction slowed significantly in 2018, and appears set for further near-term falls. The late-2017 house price declines combined with an ongoing overhang of unsold new-built Stockholm apartments have had a notable impact on sentiment in the construction sector and expectations for future building activity (Graph 4.2.5). New housing starts fell significantly in 2018 — by an estimated 20 % across Sweden as a whole, and about 35 % in Stockholm — with further declines projected in 2019 (Graph 4.2.4). As a result, the recent housing market weakness may exacerbate the long-standing supply shortage even further. This underscores the importance of tackling remaining barriers to new housing construction.

Graph 4.2.5: **Construction sentiment: overall confidence indicator and expectations component (1)**

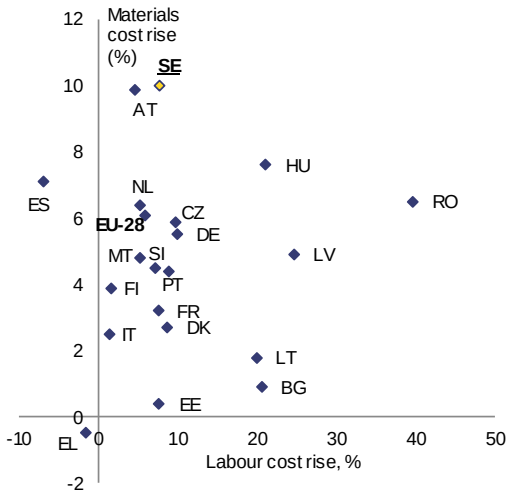


(1) Seasonally adjusted
Source: National Institute of Economic Research (*Konjunkturinstitutet*); European Commission

Structural bottlenecks are constraining housing supply and raising construction costs. There is a lack of developable land, partly driven by the fact that a large share of buildable land is owned by municipalities, which can have financial incentives for making it available in a piecemeal fashion over time rather than when it is needed most (European Commission, 2015)([21]). Despite some recent reforms, zoning and building regulations overall remain relatively cumbersome and complex. In particular, the interpretation of building rules continues to vary between some municipalities ([22]), creating a fragmented market that reduces efficiency and increases uncertainty for construction companies (European Commission, 2016). Additionally, the total time required to complete land acquisition and planning processes can be considerably longer than in other countries (Emanuelsson, 2015). This raises financial risks for construction projects and causes delays in new supply. Rigidities in the construction sector have weighed on productivity growth and restricted competition ([23]), raising construction costs in Sweden to among the highest in the EU (European Commission, 2018a).

Increasing residential construction costs appear to be partially driven by building materials. Costs for new residential buildings in Sweden grew strongly in recent years, from an already high level (European Commission, 2018a). This further rise was mainly driven by building materials costs, for which Sweden has the highest increase in the EU since 2015 (Graph 4.2.6). Other factors contributing to high building costs are wide profit margins among developers (Konkurrensverket, 2018) and weak productivity growth in the construction sector (European Commission, 2018a).

Graph 4.2.6: **Labour and material cost evolution in new residential construction (total % rise between 2015-2018Q2; not annualised)**



Source: European Commission

([21]) Incentives to delay construction can also play a role for privately-owned land, but in that case it is possible to address this through targeted policy measures if needed. In addition, unlike private-sector developers, municipalities may experience pressure to postpone building on developable land indefinitely, e.g. because of local opposition to new construction or because of the cost of new infrastructure to support more homes.

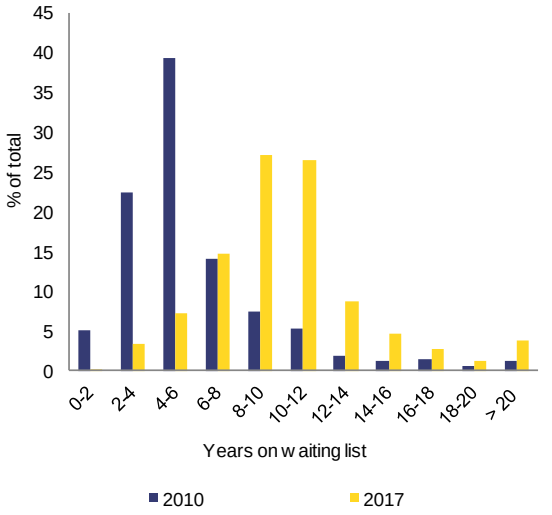
([22]) This was highlighted as a major problem by the National Competition Authority (Konkurrensverket, 2018). In particular, some municipalities impose special technical requirements that go beyond those specified by national building regulations, for example regarding energy performance of buildings or materials.

([23]) Competition is hampered by barriers to entry for small and foreign firms, like complex planning regulations that favour well-connected established companies, and by the ability of large developers to control land resources (European Commission, 2017a). Additionally, large construction companies offering turnkey solutions can be advantaged when resources within the municipal housing companies are limited, as tendering to large developers allows the latter to outsource project coordination and control (Konkurrensverket, 2018). This is likely one factor explaining the relatively low number of bids in tenders for public housing projects (3.3 in 2015-2017, versus 4.1 in 2009-2013).

Barriers to efficient usage of the housing stock

Sweden's tightly regulated rental market can create lock-in and 'insider-outsider' effects. Sweden's rental market has some of the strongest tenant protection rules in the EU (European Commission, 2017a). Rents are mostly set in collective-bargaining-style negotiations ([24]), which tend to result in below-market rent levels in urban areas (European Commission, 2018a). This creates large demand/supply imbalances and long waiting lists to obtain rental accommodation (Graph 4.2.7). As a result, sitting tenants can have a strong financial incentive not to move, even if their accommodation is no longer fully suited to their needs ([25]) (Katinic, 2018). Conversely, new entrants, such as students, young households and recent immigrants, face difficulties in getting a foothold on the rental market, thus creating an insider/outsider effect. Indirectly, the latter also contributes to high house prices in the owner-occupier market, as no access to rental housing can push households to purchase their own home (Geng, 2018).

Graph 4.2.7: **Time on waiting list before obtaining primary tenancy in greater Stockholm (distribution by number of years)**



Source: Stockholm Housing Agency (Bostadsförmedlingen)

The gap between negotiated rents and market rents has impaired rental housing supply, particularly in major cities. Below-market rent levels combined with high land prices create financial incentives to favour construction of owner-occupancy housing over rental apartments ([26]). This situation also encourages conversion of rental units into owner-occupied homes, thus further aggravating the rental housing shortage. Historically, this has been particularly pronounced in major urban areas: for example, in Stockholm, for every new rental apartment built, three were converted into owner-occupied units over the 1990s and 2000s (Emanuelsson, 2015).

In addition, there are negative knock-on effects on labour mobility and social equality. The lock-in and insider/outsider effects in the rental market can prevent workers from moving to locations with the best job opportunities, thus hampering labour market dynamism. Furthermore, tight rental regulations combined with a shortage of affordable rental housing can exacerbate inequality and social problems. This particularly affects lower-income

([24]) These annual negotiations are generally based on a 'utility value' (*bruksvärde*) framework, intended to reflect the objective quality of the accommodations and tenant preferences. It also incorporates the location of a property, but in practice this has significantly less impact on negotiated rents compared to a market-based rent-setting system (Donner et al., 2017). Discussions are ongoing between the main negotiating parties (representing tenants, municipal housing companies and private-sector landlords) on how to improve the system. This could result in annual rent adjustments which are better aligned with landlords' costs and economic growth, and in some cases with the location component receiving somewhat greater weight in setting rents. A related Stockholm-specific negotiation initiative was completed in December 2018, and adopted a more systematic rent-setting framework (*Stockholmshyra*) for 60 000 apartments (to be phased in from 2020), with a greater role for location and accommodation quality. Such changes, while welcome, remain rather incremental and will hardly address the significant gap between market and negotiated rents in major cities.

([25]) There is an exchange system in place that allows tenants to swap apartments by mutual agreement. However, this only partly mitigates lock-in effects, because it requires direct matching between tenants moving in opposite directions. Moreover, it does not prevent insider/outsider effects, as only those who already have a primary tenancy qualify. It can also lead to abuse, whereby tenancies in attractive locations are exchanged in return for unauthorised payments.

([26]) This is mitigated somewhat by the possibility of using a special system of 'presumption rents' (*presumtionshyra*) for newly constructed housing, which exempts the property from the utility value framework for a period of 15 years. However, this system has some significant drawbacks as well and doesn't fully resolve uncertainty for developers (European Commission, 2018a; see footnote 23 in particular).

households, and can contribute to a relatively high degree of overcrowding among socially vulnerable groups (OECD, 2017b). While reform of Sweden's rental market may also have significant redistributive and social consequences, this could be managed by a combination of tax measures and targeted subsidies (Donner et al., 2017).

The role of 'social contracts' in public housing policy is gradually growing. The need for affordable rental housing is linked to broader questions concerning optimal use of the available housing stock. Sweden does not have a designated social housing sector. Public housing companies ([27]) own around 20 % of the housing stock. Additionally, municipalities can offer 'social contracts' ([28]) to assist the most vulnerable groups in society. Although numbers are still low (roughly 30 500), such social contracts are gaining in importance, especially in urban areas.

Capital gains taxes on housing transactions can create lock-in effects in the owner-occupier market. Sweden applies a 22 % capital gains tax on property sales, even when a homeowner is selling to buy another property of similar value elsewhere (meaning no actual economic gain is realised). As house prices have increased significantly in Sweden, this means that households which have owned their home for a long time can face prohibitively high moving costs ([29]). In practice, this tends to particularly affect elderly households living in large single-family houses and looking to relocate to a conveniently-located apartment. Reforming capital gains taxation to eliminate this lock-in effect could help free up underused family dwellings from the existing housing stock and improve overall supply-demand matching in the owner-occupier market.

Policy developments

Demand-side policy action in the housing market has been focused on using macro-prudential measures to curb mortgage lending. Since 2010, Sweden has gradually introduced a number of measures, including loan-to-value limits, adjusting banks' risk-weight floors, and introducing a binding mortgage amortisation requirement in June 2016 (see Section 4.2.3 for details) to contain mortgage debt growth (and thus housing demand). A more stringent amortisation rule for borrowers with high debt-to-income ratios came in force in March 2018 (also discussed in Section 4.2.3).

The implementation of the '22-point plan' for the housing market continues. The plan, originally proposed in June 2016, contains a range of measures — mostly rather incremental in nature — which aim to increase the land available for development, reduce construction costs, shorten planning process lead times and address some specific inefficiencies in the rental market. Some parts of the plan, particularly those which concern reducing costs and lead times for new construction, have been broadly completed. For other elements, including a review of building and planning regulations and measures to make more developable land available, public inquiries and other preparatory steps are still ongoing. More time is required before these proposals can be finalised, therefore, and it remains uncertain whether they will result in actionable conclusions and ultimately successful implementation.

Sweden is taking steps to boost participation of foreign companies in the construction industry. In June 2018, the National Board of Housing, Building and Planning (*Boverket*) finalised the first phase of an effort to facilitate entry of foreign construction firms in the Swedish market in order to promote competition and lower residential construction costs. It set up an online portal ([30]) with detailed English-language guidance for foreign developers, including translations of building regulations and practical information on

([27]) Public housing companies are owned by municipalities, but generally operate on standard commercial terms. Their aim is to offer good housing at reasonable prices for everyone, regardless of income or social background within the regular negotiations-based rental market framework.

([28]) Generally, for this purpose municipalities rent apartments from housing companies (both private and public), and in turn sublet them to people who are unable to get access to the ordinary housing market (often with some embedded economic support component). Over time, with a favourable record the tenants may take over the rental contract directly. In 2018, according to the National Board of Housing, Building and Planning (*Boverket*) there were 23 772 such contracts across Sweden. In addition, municipalities own 6 752 dwellings to provide housing for vulnerable households.

([29]) It is possible to defer the capital gains tax liability, but this only reduces the immediate cash flow impact and not the effective wealth reduction, and requires interest payments on the deferred amount.

([30]) http://www.buildinginsweden.se.

the Swedish construction sector. The web portal will gradually be expanded further, and Boverket will also investigate additional obstacles encountered by foreign operators and which could be addressed by targeted policy measures.

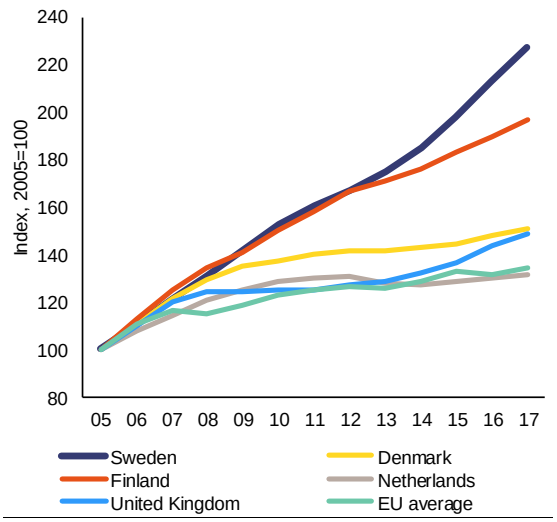
The Swedish authorities intend to initiate inquiries into possible reforms to improve mobility in the housing market. As part of its policy statement in January 2019, the new government announced plans to introduce a more flexible rent-setting system for newly constructed housing, and to allow location to play a larger role in adjusting rents within the negotiation-based system for existing housing. Additionally, deferred capital gains taxes on sold properties in the owner-occupancy market could be made interest-free. Such reforms can potentially help address some of the barriers to efficient usage of Sweden's housing stock (see above), and incentivise more rental housing construction. However, these plans are subject to significant preparatory inquiry work to assess feasibility and develop detailed implementation proposals. It therefore remains unclear what form these measures will ultimately take and how impactful they will be.

4.2.3. PRIVATE INDEBTEDNESS (*)

Household debt developments

Household indebtedness has continued to rise rapidly from an already elevated level. Swedish household debt has been on a persistent upward trajectory since the early 2000s, significantly outpacing debt growth in peer countries (Graph 4.2.8). In most economies with relatively high household indebtedness, debt growth tapered out after 2008, but in Sweden debt levels continued to grow apace. This pattern endured in 2018, with household debt climbing by 5.5 % in nominal terms. While this is a deceleration from its peak year-on-year increase of about 7.8 % in mid-2016, it remains one of the fastest growth rates in the EU. It also continues to outstrip household income and overall economic growth. Household debt also stands above fundamental and prudential benchmark levels, suggesting that Sweden's household debt load is higher than can be justified by fundamental drivers, and above levels at which the risk of crisis becomes elevated.

Graph 4.2.8: **Household debt evolution (indexed, 2005=100)**



Source: European Commission

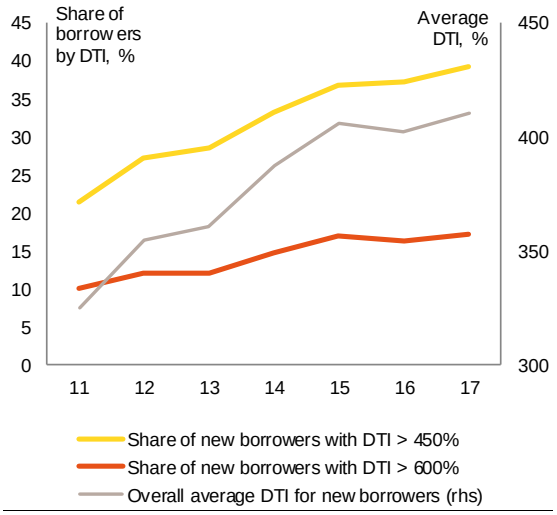
Debt levels vary considerably between different borrower subgroups. The aggregate debt level across all Swedish households (including those without any debt) stands at about 186 % of disposable income (as of Q3 2018) ([31]). For households with a mortgage, the average debt-to-income (DTI) ratio is over 340 % (Blom et al., 2017. Among this group, those who took out their mortgages more recently generally have higher debt levels: the average DTI ratio for new borrowers in 2017 is estimated at 411 %. There are also significant regional differences in debt levels, with average DTI ratios highest for those living in major cities, notably Stockholm (Ölcer et al, 2017). Younger and lower-income households with a mortgage tend to face particularly high debt service costs relative to their incomes (Finansinspektionen, 2018b; European Commission, 2018a).

The share of new mortgage borrowers with particularly high debt-to-income ratios continues to rise. The share of newly-mortgaged households facing an overall debt burden over 450 % of their disposable income has roughly doubled since 2011, and is now approaching 40 % (Graph 4.2.9). Over one in six new borrowers has a

([31]) This includes only direct borrowing by households. Many owner-occupiers living in tenant-owned apartments also indirectly bear the debt burden of their tenant-owner association (European Commission, 2018a). Including this debt raises the aggregate debt-to-income ratio by 20 percentage points (Sveriges Riksbank, 2018b).

debt-to-disposable-income ratio over 600 %. While mortgaged households, including those with high DTI ratios, generally have relatively healthy income surpluses at the current juncture (see subsection 'Risks' below), such high debt burdens can make them vulnerable to shocks.

Graph 4.2.9: **Share of new mortgage borrowers by debt-to-disposable-income ratio**



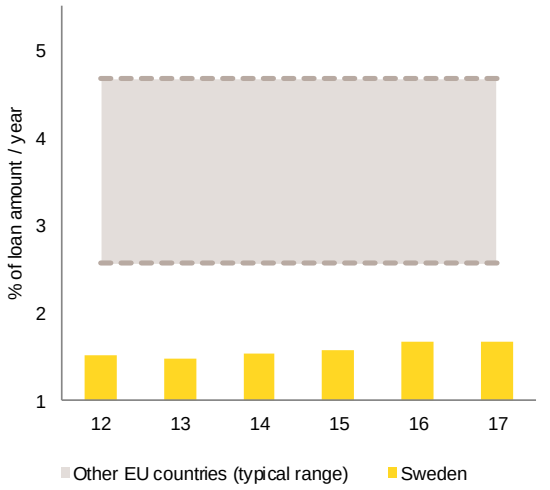
Source: Finansinspektionen

Drivers of household debt growth

Mortgage lending growth is linked to the long period of steep house price growth in Sweden. House price rises (see Section 4.2.1) and mortgage debt growth are mutually reinforcing: a strong housing market enables larger mortgage loans, as it increases the value of the underlying collateral, and growing mortgage debt levels raise demand for houses while supply is limited, thus putting upwards pressure on prices. Even when house prices remain broadly stable at a high level (as in 2018), overall mortgage debt still tends to increase (albeit at a slower rate). This is due to natural turnover in the housing market ([32]) and growth of the overall housing stock (Emanuelsson et al., 2018).

In Sweden, this dynamic is exacerbated by structural factors that lower debt service costs. As discussed in Section 4.2.2, there are strong tax incentives for purchasing owner-occupied housing, especially when financed with a mortgage. In addition, due to a combination of borrower preferences and institutional conditions([33]), mortgages are mostly variable-rate in Sweden. This reduces current debt service costs, but also shifts risks related to future rate rises to the household sector. Finally, Swedish mortgage contracts have long maturities compared to other EU countries, generally accompanied by low amortisation (i.e. capital repayment) requirements (Graph 4.2.10). This further amplifies the impact of low interest rates on debt service costs (European Commission, 2017a).

Graph 4.2.10: **Amortisation rate for mortgages**



Source: Finansinspektionen; European Commission calculations (based on Hypostat data on typical mortgage maturities for different EU countries)

The recent rapid increase in unsecured borrowing has limited impact on financial stability. Mortgage debt is over 80 % of total household borrowing, and has been the key driver of the persistent rise in overall household indebtedness. Unsecured borrowing and household loans with other collateral (e.g. cars) have

([32]) Since the outstanding mortgage on an existing home (typically acquired many years ago at a much lower price) will generally be far smaller than the mortgage needed by a new buyer now, the overall debt load tends to increase as houses change ownership.

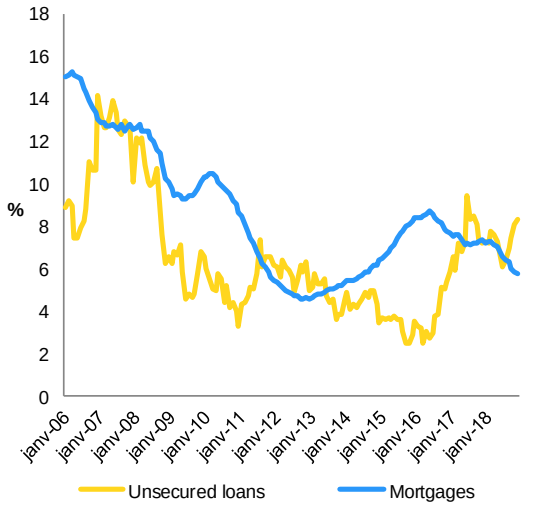
([33]) In particular, Swedish mortgage contracts can make it expensive to redeem a fixed-rate mortgage prematurely. Redemption requires the borrower to pay a lump sum compensation charge to the lender for forgone interest payments, based on the differential between the initial fixed rate and currently prevailing interest rates (if the latter are lower). This can create disincentives for borrowers to opt for longer fixation periods, particularly for households who see a significant likelihood that the mortgage may need to be redeemed early (e.g. because of plans to move after a few years) (Holmberg et al., 2015).

historically grown comparatively slowly. However, since mid-2016, unsecured borrowing has accelerated (Graph 4.2.11) due in part to technological and institutional changes ([34]) and consumer credit banks offering increasingly competitive interest rates (Van Santen, 2017). Tighter mortgage regulations combined with rising house prices may also have shifted some borrowing towards unsecured loans ([35]), although hard data on this is limited (Finansinspektionen, 2018a). Overall, unsecured borrowing remains under 5 % of GDP, similar to the EU average (European Commission, 2017a), with currently limited implications for financial stability.

([34]) These include consumer credit firms developing a stronger online presence, a growing use of partnerships with intermediaries to offer packaged financing deals for purchases, and the emergence of niche banks specifically focusing on unsecured lending (Van Santen, 2017).

([35]) In particular because the timing of the pick-up in unsecured borrowing coincides with the introduction of the amortisation requirement in 2016. Such borrower behaviour can be difficult to rationalise, as recently introduced mortgage restrictions (in particular, amortisation requirements) cannot generally be circumvented by resorting to unsecured loans, since the latter also need to be amortised (and have much higher interest rates and shorter maturities). Nevertheless, in specific cases a combination of a mortgage and an unsecured loan can reduce initial debt service costs (e.g., because it allows the mortgage amount to be limited to just below the threshold that triggers a higher amortisation rate; see Van Santen, 2017). Some households might use unsecured borrowing to circumvent the 85 % loan-to-value cap applicable to mortgages; introduced already in 2010, it could have become increasingly binding over time as house prices continued to rise.

Graph 4.2.11: **Year-on-year growth rate in mortgages and unsecured loans to households**



Source: Statistics Sweden, Riksbank (Financial Markets Statistics)

Risks and policy response

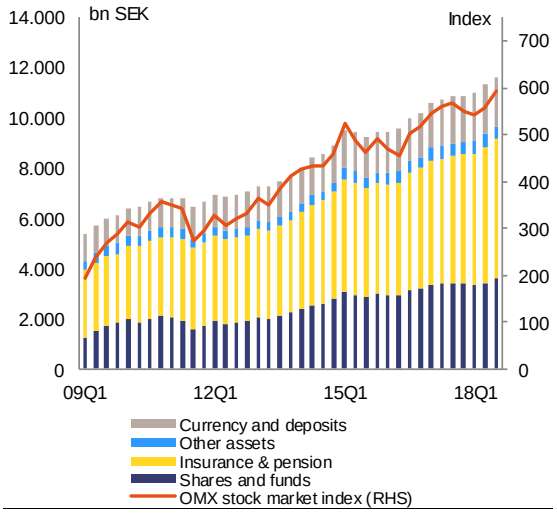
Growing household debt coupled with elevated house prices makes the Swedish economy vulnerable to shocks. If incomes were to fall due to an external shock to the economy, or if there was a sharp rise in mortgage risk premiums — triggered, for instance, by a renewed housing market downturn or by higher bank funding costs as perceptions about their riskiness worsen — highly-leveraged households may need to rapidly reduce consumption to meet their mortgage payments. This would reduce demand and increase uncertainty, potentially weighing on growth and employment and thus further impairing households' debt service ability. At the same time, overall credit availability may shrink, as falling collateral values make banks more cautious about new lending. Ultimately, this could lead to a self-reinforcing deleveraging process with a significant broader macroeconomic impact, in line with historical developments in other countries facing similar imbalances (OECD, 2017a; Crowe et al., 2011).

Risks are partly mitigated by households' robust payment ability and financial wealth. Households have relatively high income surpluses after mortgage service costs and day-to-day expenses, of roughly 40 % of disposable income on average (Finansinspektionen, 2018b). Households' strong payment ability is also

reflected in a very low share of non-performing household loans (see Section 4.2.1). Additionally, households have a high savings rate and significant financial wealth, estimated at roughly three times their liabilities.

However, this strong overall financial position would likely provide only limited cushioning in a disorderly deleveraging scenario. Income surpluses are high on average, but they are heavily skewed towards higher-income households (European Commission, 2018a). Moreover, they assume that households are able to reduce their spending to near-subsistence levels. Thus, although most households may be able to continue servicing their debt even in a downturn, this would likely require a very considerable consumption reduction with major macroeconomic knock-on effects. As for financial wealth, close to 50 % of non-housing assets owned by Swedish households are invested in pension fund or life insurance instruments, and can therefore only be accessed upon retirement. Moreover, most non-housing assets are exposed to market risks (Graph 4.2.12), and would likely fall in value in an economic downturn. Thus, rather than cushioning the impact of a housing market fall, this could further amplify it, by weighing on consumption via wealth effects.

Graph 4.2.12: **Household financial assets (*) and stock market index**



(*) Excludes assets representing an interest in owner-occupied property (in particular shares in tenant-owner associations)
Source: Statistics Sweden

Sweden has mainly relied on macro-prudential measures to address the risks related to household debt growth. These include the introduction of a loan-to-value (LTV) ceiling of 85 % for mortgages in 2010, gradual increases in banks' risk-weight floors for mortgages in 2013 and 2014, a formal mortgage amortisation requirement in 2016, and an enhanced overall macro-prudential framework in February 2018. Additionally, in September 2018, the macro-prudential authority decided to further raise the countercyclical capital buffer for banks from September 2019, as a broad measure to improve financial sector resilience (see Section 4.2.1). While welcome steps forward, these measures have not meaningfully curbed the continued growth in household debt (European Commission, 2018a).

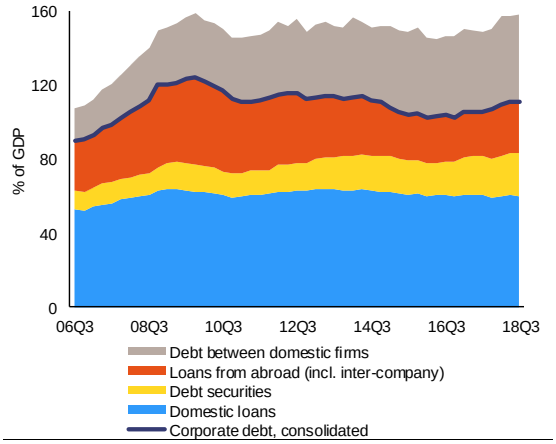
In March 2018, a strengthened amortisation rule for new mortgage borrowers with high debt-to-income levels came into force (see Section 4.2.1)**.** While there is insufficient data for a detailed impact assessment at this stage, the initial effect of this new measure seems to be rather muted, in line with *ex ante* analysis (European Commission, 2018a). There have likely been some changes in individual borrower behaviour, particularly in higher-priced segments of the housing market, but there appears to have been little immediate impact on overall house prices and household debt developments. Nevertheless, if house price growth resumes, this additional macro-prudential policy step is likely to become increasingly binding over time, and can thus help contain mortgage borrowing at excessive DTI levels.

Corporate debt developments

Following a period of post-crisis deleveraging, corporate debt growth has again picked up in recent years. After the financial crisis, Swedish non-financial corporations gradually reduced their consolidated corporate debt from a peak of 125 % of GDP in 2009 to just over 100 % by 2016 (Graph 4.2.13). This was mostly driven by 'passive' deleveraging, with net credit flows to Swedish firms positive, but outweighed by economic growth and inflation (European Commission, 2018a). However, since early 2017, net corporate debt has started outpacing economic growth again due to highly favourable credit conditions and overall still robust confidence levels among

companies. As of Q3 2018, consolidated corporate debt stood at over 111 % of GDP — well above the EU average of about 80 %.

Graph 4.2.13: **Breakdown of corporate debt by funding source**

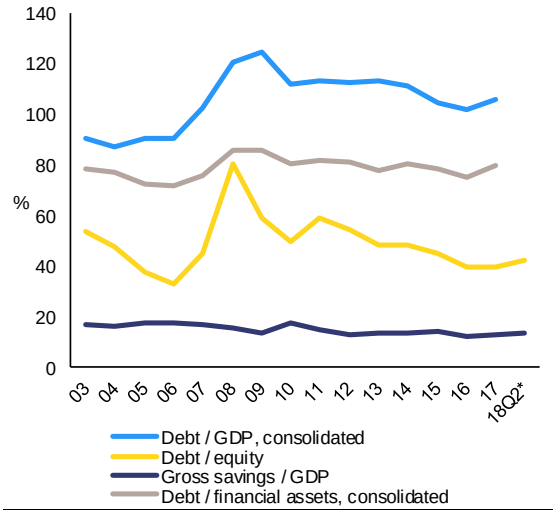


Source: Statistics Sweden

Domestic loans remain the main funding source for the corporate sector, followed by international bond markets. Domestic lending (mostly from banks) to firms has been broadly stable at about 60 % of GDP since the financial crisis (Graph 4.2.13). Larger corporations have further increased the use of the bond market as an additional funding source, with its contribution growing from 11 % of GDP pre-crisis to over 20 % in 2018. Lending from abroad contracted sharply around 2013, driven by a reduction in intra-group borrowing in response to tax reforms (European Commission, 2016a); since then, it has remained roughly flat at about 25% of GDP.

Overall, despite high corporate debt levels, firms generally seem to have a healthy financial position with limited risks of financial distress. Sweden's corporate-debt-to-GDP ratio is high compared to other EU countries. However, other leverage indicators show that financial risks are overall limited. Firms have significant equity cushions, with a debt-to-equity ratio that is already at a quite low level (around 42 % as of Q2 2018, compared to about 60 % on average for EU countries) and continues to fall (Graph 4.2.14). In addition, gross corporate savings remain at a healthy 13 % of GDP, suggesting that the corporate sector is sufficiently profitable to be able to reduce its debt level quickly if needed. Overall, with the possible exception of the commercial real estate sector (to which banks have a concentrated exposure, see Section 4.2.1), Sweden 's relatively high corporate debt level does not appear to raise financial stability concerns.

Graph 4.2.14: **Leverage indicators for non-financial corporations**



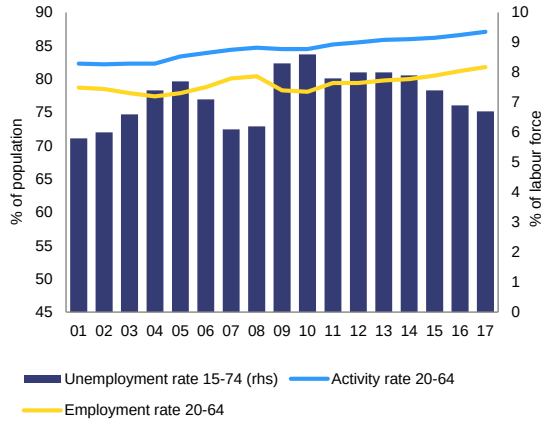
(*) Last 4 quarters
Source: European Commission

4.3. LABOUR MARKET, EDUCATION AND SOCIAL POLICIES

4.3.1. LABOUR MARKET AND MIGRATION

Favourable economic conditions keep the Swedish labour market strong. Employment grew from an already high level of 81.8 % in 2017 during the first three quarters of 2018 and is likely to increase further, albeit more slowly. In parallel, unemployment has fallen but is now forecast to level out at around 6 % due to skills mismatch (Graph 4.3.1). An increasing number of workers do not have the qualifications required to fill open positions, where almost exclusively high-skilled labour is necessary. High entry wages and a compressed wage structure also imply challenges for those further from the labour market (OECD, 2017b; Calmfors et al, 2018). Despite those challenges, Sweden performs well on the indicators of the Social Scoreboard supporting the European Pillar of Social Rights (4.3.1).

Graph 4.3.1: **Activity, employment and unemployment rates**

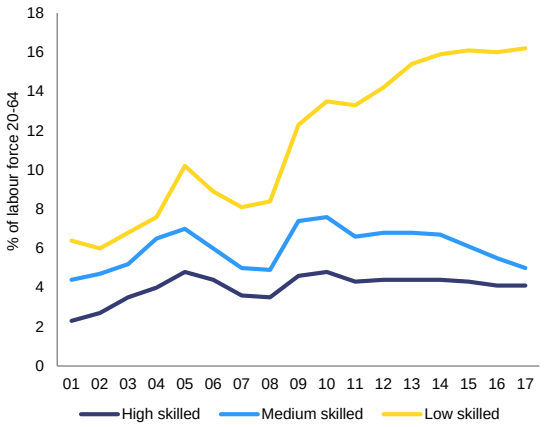


Source: European Commission

Labour shortages are increasing in specific sectors and regions. Sweden has the third highest labour shortage index in the EU and employers perceive the lack of qualified staff as the main obstacle to growth. The number of vacancies has been growing since 2015 in all counties, but employment growth has been concentrated in the wider metropolitan areas, whereas local and regional labour markets risk being drained of qualified labour (Svenskt Näringsliv, 2018; Arbetsförmedlingen, 2018b).

People with low levels of skills face difficulties in finding employment. The disparity between the employment rates of low-, medium-, and high-skilled workers increased at the time of the financial crisis in 2008 and has remained high. In Q3-2018, the employment rate of the low-skilled was 64.8 % vs. 90.4 % for people aged 25-64 years with at least two years of tertiary education. What is more, their unemployment rate (age 25-64 years) at 15.9 % in Q3-2018) was 9.2 percentage points higher than in Q3 2008 (Graph 4.3.2). Meanwhile, unemployment fell for people with tertiary education and stood at 3.6%, 0.3 percentage points in Q3-2018. (Arbetsförmedlingen, 2018b). Persons with disabilities are also at a disadvantage. Their employment level is above the EU average, and the gap in the employment rate is more narrow (15.9 percentage points vs. 25.8 percentage points for the EU). However, their unemployment levels remain higher (9 % vs. 7 % for the population as a whole in 2017) (Statistics Sweden, 2017).

Graph 4.3.2: **Unemployment rate by educational attainment**



Source: European Commission

Securing adequate skills for an advanced economy like Sweden remains a challenge. Nine out of ten jobs in Sweden require basic digital skills and 77 % of 16-74 year olds have basic or above basic digital skills. However, labour shortages exist in areas such as cybersecurity, artificial intelligence, and high performance computing.

Box 4.3.1: Monitoring performance in light of the European Pillar of Social Rights

The European Pillar of Social Rights is designed as a compass for a renewed process of upward convergence towards better working and living conditions in the European Union.[1] It sets out twenty essential principles and rights in the areas of equal opportunities and access to the labour market; fair working conditions; and social protection and inclusion.

SOCIAL SCOREBOARD FOR SWEDEN		
Equal opportunities and access to the labour market	Early leavers from education and training (% of population aged 18-24)	On average
	Gender employment gap	Best performer
	Income quintile ratio (S80/S20)	Better than average
	Risk of poverty or social exclusion (%)	Better than average
	Youth NEET (% of total population aged 15-24)	Best performer
Dynamic labour markets and fair working conditions	Employment rate (% of population aged 20-64)	Best performer
	Unemployment rate (% of population aged 15-74)	On average
	Long-term unemployment rate (% of population aged 15-74)	Better than average
	GDHI per capita growth	Better than average
	Net earnings of a full-time single worker earning AW	Better than average
Public support / Social protection and inclusion	Impact of social transfers (other than pensions) on poverty reduction	Better than average
	Children aged less than 3 years in formal childcare	Best performer
	Self-reported unmet need for medical care	On average
	Individuals' level of digital skills	Best performer

Member States are classified according to a statistical methodology agreed with the EMCO and SPC Committees. The methodology looks jointly at levels and changes of the indicators in comparison with the respective EU averages and classifies Member States in seven categories (from "best performers" to "critical situations") For instance, a country can be flagged as "better than average" if the level of indicator is close to the EU average, but it is improving fast. For methodological details please consult the draft Joint Employment Report 2019, COM (2018) 761 final.
NEET: not in employment, education or training
GDHI: gross disposable household income

Sweden performs well on most indicators of the Social Scoreboard supporting the European Pillar of Social Rights. The employment rate is among the highest and the gender employment gap is among the lowest in the EU. The share of young people not in education, employment or training is well below the EU average. The good overall results reflect Sweden's advanced welfare model with an active labour market policy, robust social protection system, and long-standing and well-established social dialogue. Yet the promotion of the labour market participation of the low skilled and foreign-born, and among them women, remains a policy challenge.

While Sweden's early school leaving rate is relatively low, students born abroad are more likely to leave school early. Since 2014, the share of early leavers from education and training has been increasing, along with the rise of influence of socio-economic background on student educational performance. Tailor-made support to early school leavers does in part address this challenge.

Sweden implements policies to make the labour market more inclusive and encourage education and training. Focusing on the young and newly arrived, public employment services and the municipalities work closely together to address the specific needs of each individual job-seeker. This approach has also successfully been used in ESF projects where focus is on matching the needs of employers and young job-seekers (e.g. "UNGKOMP" and "Ung Framtid").

[1] The European Pillar of Social Rights was proclaimed on 17 November 2017 by the European Parliament, the Council and the European Commission. https://ec.europa.eu/commission/priorities/deeper-and-fairer-economic-and-monetary-union/european-pillar-social-rights/european-pillar-social-rights-20-principles_en

Long-term unemployment remains among the lowest in the EU. It was 1.2 % in 2017, well below the EU average of 3.4 %. The long-term unemployed, however, have not benefited from the general increase in employment. According to the Public Employment Service, their number might increase since people with low levels of education and migrants risk not being integrated in the labour market (Arbetsförmedlingen, 2018b).

Growth in the Swedish labour force is mainly due to immigration. Policies in this domain are primarily guided by humanitarian concerns. The number of asylum applications peaked in 2015 at

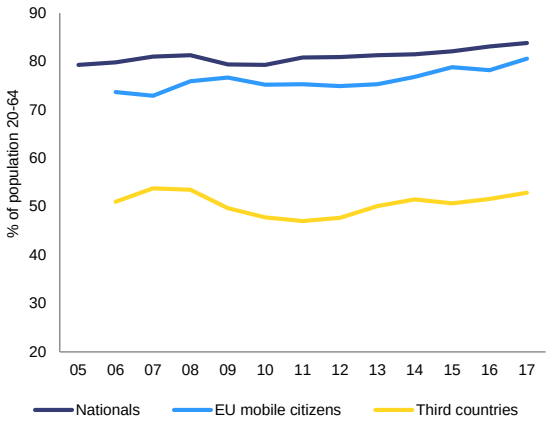
162 450. Since then numbers have fallen back to pre-2011 levels of roughly 25 000 people a year. The non-EU born now account for 12.4 % of the population, constituting the second highest share in the EU and well above the average of 7.2 %. Even though numbers have fallen, successful integration of non-EU born into society and the labour market remains an important challenge.

Foreign-born have been instrumental in filling vacancies but their employment rate remains low. In 2017, 75 000 out of the 94 000 newly created jobs went to foreign-born persons. In several sectors such as private services, education, care and health services, foreign-born represented 90 % of the job growth in 2017, and virtually all growth in industry, agriculture and forestry (Arbetsförmedlingen, 2018a). Their employment rate grew by more than one percentage point, which is nearly twice as high as the increase for native born. However, the employment rate of non-EU migrants remains markedly lower than those of Swedish nationals and citizens of other EU Member States (Graph 4.3.3).

Efforts to bring recently arrived non-EU migrants into work have born fruit. Most of the newly arrived migrants are eligible to join the introduction programme *(etableringsprogrammet)*, which typically lasts for two years and combines language classes with job training and advice. The programme, combined with a good economy and the introduction of more jobs, has led to a shortening of the time needed to find work. Among the refugees received between 2008 and 2015, the employment rate one year after arrival increased by approximately eight percentage points between 2008 and 2015 (Statistics Sweden, 2016). The new government wants to increase its effectiveness and further boosting Swedish language skills of participants. Traineeship opportunities should also be included and the link between active participation and receiving allowances should be strengthened.

Foreign-born women get a particular focus as their employment rate is relatively low. Since 2017, the Public Employment Service specifically targets foreign-born women, and in March 2018 the government tasked the Agency for Economic and Regional Growth (*Tillväxtverket*) to facilitate foreign-born women's contacts and networking with employers. In 2018, the employment rate of this group remained well below that of native-born women (65.8 % vs. 85.2 %) and of foreign-born men (74.5 %) (Arbetsförmedlingen, 2018b).

Graph 4.3.3: **Employment rate by citizenship**



Source: European Commission

The government has taken several measures to make the labour market more inclusive and stimulate labour supply. The number of professions and participants covered by fast-tracks (*snabbspår*) continue to increase: 40 professions are now covered and since 2016, more than 7 500 people have had intensive training to quickly enter the labour market. During Q1-2018, an average of 1 350 persons participated every month, up from 1 200 in 2017. To encourage more women to participate, distance education is now possible in some fast-tracks. National fast-tracks are complemented with local job-tracks, directly addressing the needs of the local labour market. Another scheme, to be further implemented is the entry agreement (*etableringsjobb*), which aims at helping newly arrived migrants and long-term unemployed to become established in the labour market. The measure closely follows proposals of social partners. ([36])

Vocational education and training are being strengthened to meet the future needs of the labour market. The employability of vocational graduates in Sweden remains high. In 2017 87.3 % of them found employment within 3 years of

([36]) Entry agreements combine work with the possibility for the worker to take part in training courses as agreed on with the employer. An entry agreement should generally be able to lead to a permanent, full-time position. The employer's total payroll expenses are limited and the worker receives an individual state benefit for no more than two years.

graduation, which is well above the EU average of 74.8 %. However, the participation rate remains lower than the EU average (36.6 % vs 49.0 % of all pupils in upper secondary education). To make upper secondary vocational education and training more attractive, several measures have been taken, including the creation of an apprenticeship centre within the Swedish National Agency for Education, and national and regional coordinators to assist schools in their collaboration with local enterprises (Cedefop, 2018).

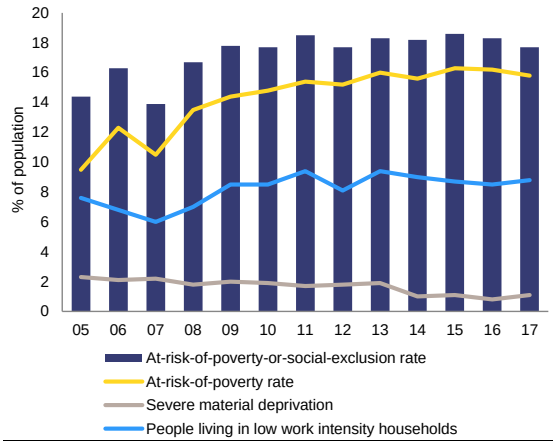
Participation in adult learning is high in Sweden. The high share of adult learning applies to all demographic groups (European Commission, 2018f). The percentage of adults in lifelong learning and training was 30.4 % in 2017, well above the 'Education and Training' target of 15 %. The share of low-qualified persons participating in lifelong training (20.5 %) and unemployed (45.3 %) is already well above EU average (4.3 % and 10.1 % respectively). Sweden continues to prioritise training for the low-skilled with a particular focus on strengthening regional cooperation to better meet labour market needs. The new government intends to use targeted forms of training and an increased allowance for these participants to support faster employment.

4.3.2. SOCIAL POLICIES AND HEALTHCARE

Poverty remains low but varies across groups. The share of people at risk of poverty or social exclusion (17.7 % in 2017) is below the EU average (22.5 %). However, educational and social backgrounds have a marked impact on the risk of poverty. Children of low-skilled parents and people with a migrant background have a higher risk than other groups. In-work poverty increased among single parents (from 15.7 % in 2016 to 21.1 % in 2017) and the low skilled have an in-work poverty rate of 12.8 %, substantially above the risk for medium- and high-skilled workers (6.6 % and 4.7 % respectively).

Sweden is advanced in the use of digital services, but certain groups risk exclusion. 98 % of Swedes are connected to the internet and a large majority are online every day. However, the group of non-users (more likely to be low-income households, elderly and/or people with intellectual disability) might face a risk of not getting appropriate services as businesses and institutions increasingly assume that everyone is online and develop services accordingly. One example is the fast transition towards a cashless society: 1.5 million out of roughly 8.2 million Swedes above the age of 15 years do not have a mobile BankID, which enables citizens to access online banking and public services.

Graph 4.3.4: **At-risk-of-poverty or social exclusion rate and its components**



Source: European Commission

Sweden has a well-performing health system, and remains among the Member States with the highest spending on health (approx. 10.9 % GDP). The share of public spending for health care is one of the highest in EU (with more than a quarter allocated to long-term care). Swedish people have the fifth-highest life expectancy in Europe and amenable mortality (i.e. ratio of deaths that could have been avoided through optimal quality health care) is below most other EU countries. More than 75 % of the population reports being in good health, compared to the EU average of 67 % (OECD, 2018b).

While overall the health care sector is accessible, waiting times are an issue and regional differences exist. Waiting times vary, explaining unmet health needs in less densely populated or remote regions (Isaksson et al. 2016). Sustained measures are being taken specifically to shorten queues. National guidelines and regional care programmes for different diagnoses have been put in place to tackle regional discrepancies in the quality of care. The difference between high- and low-income groups in terms of access to healthcare is among the lowest in the EU. However, many

risk factors are more pronounced among low-income groups, such as overweight and obesity.

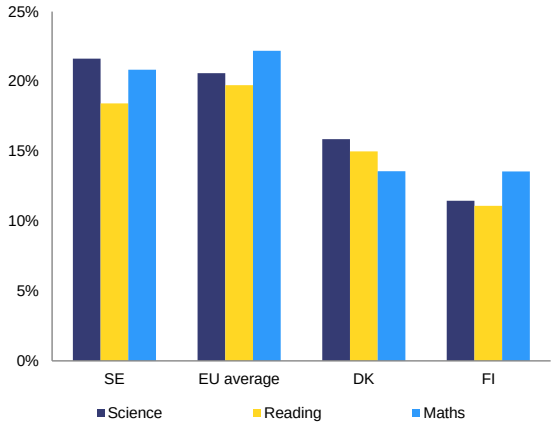
Despite a relatively high number of doctors and nurses, challenges persist in finding the best mix of medical staff. The number of doctors is above the EU average but the share of general practitioners (less than 20 %) is lower than in most EU countries (OECD, 2018b) and this has a negative impact on the continuity of care ([37]). Coordination, especially with regard to person-centred care and IT systems, could be improved in order to make the most efficient use of staff resources (OECD, 2017c). To ensure an adequate level of nursing, both in terms of numbers and skills, the government has invested in education and provided resources to expand the workforce (SEK 3 billion).

The long-term care sector offers good coverage, but is not fully efficient. Sweden has comprehensive arrangements for the elderly and the dependent population, allocating more than a quarter of all health spending to long-term care. There is room to improve the flexibility of the system to better respond to people's expectations and to ensure better coordination of person-centred care (OECD, 2017c).

4.3.3. EDUCATION

Basic skills of the younger generation have improved. According to the OECD's 2015 Programme for International Student Assessment (PISA) survey, student performance improved significantly in mathematics and reading compared to 2012, and remained broadly stable in science. The proportion of low achievers is now close to the EU average in all three core subjects but still higher than in other Nordic countries (Graph 4.3.5). The negative trend in performance was also reversed in the 2015 Trends in International Mathematics and Science Study, an international survey of eighth-graders (aged 13-14) and in the 2016 Progress in International Reading Literacy Study of fourth-graders (age 10). The new government intends to extend primary school by one year to ten years and has also presented plans for a more comprehensive curriculum for fast learners.

Graph 4.3.5: **Proportion of low achievers in OECD PISA (2015)**



Source: OECD

Demographic developments are putting pressure on the school system. Between 2010 and 2016, the number of pupils in compulsory school increased by 16 %, from 886 000 to over 1 million. The trend is set to continue in the next decade due both to the large number of newly arrived students in recent years, and to an increase in the number of Swedish-born children. One in three children born in the next 10 years is expected to have a foreign-born mother and one in four students in upper secondary education to be foreign-born (Statistics Sweden, 2018b). It is therefore crucial that investment in school infrastructure evolves in line with the needs.

The growing teacher shortage is a major concern. Over 10 000 compulsory school teacher, one in ten, are due to retire in the next five years (Swedish Teachers' Union, 2018). Due to demographic developments, 92 000 teachers and pre-school teachers would need to be examined, equivalent to 77 000 full-time positions, in the coming 5 years to meet the growing demand. By 2031, 227 000 teachers and pre-school teachers would be needed, however, based on current patterns, only about 145 000 will graduate, leading to a shortage of over 80 000 teachers. (National Agency for Education, 2017). As already more than one in ten new university students enters teacher training, other options to explore could include faster employment of teachers with a foreign qualification, employing retired teachers,

([37]) 30 % of all Swedish primary care consultations are provided by 'rental doctors' from staffing agencies

and more effective use of distance education (Swedish Association of Local Authorities and Regions, 2018b).

A high and rising share of teachers is unqualified, despite increasingly strict requirements ([38]). In 2017/2018, close to 30 % of teachers in compulsory schools and 20 % in upper secondary schools taught without a formal teacher training qualification (National Agency for Education, 2018a). Among those under the age of 29 the share was as high as 53 % (Swedish Teachers' Union, 2018). To address the challenge, bridging teacher education programmes target academics who already fulfil the requirement for a specific school subject. The new government intends to reform the teacher training education using higher entry requirements and additional resources.

Sweden is among the EU countries that in relative terms spend most on education, and expenditure has been rising. General government expenditure on education was among the highest in the EU in 2016, as a proportion both of GDP (6.6 %) and of total general government expenditure (13.4 %). Education expenditure, at constant prices, increased by 19 % in 2013-17. Expenditure per pupil increased most in compulsory schools, by 14 %, and in upper secondary schools, by 11 % (Statistics Sweden, 2018a).

The organisation and financing of education up to upper secondary level is decentralised, but a wide range of central government grants increases complexity. Funding follows the pupil and municipalities and independent school providers are required to account not only for the number of students enrolled but also their needs based on socio-economic background ([39]). In 2017, the total central government investment in education was SEK 15 billion (EUR 1.46 billion). This represented about 15 % of school funding, allocated in the form of over 70 different grants. Merging the range of grants could be a way to improve efficiency and flexibility at local level (National Audit Office, 2017).

Sweden spends more on tertiary education than the EU average but the allocation per full-time student has continuously decreased. Total expenditure in this area corresponds to 1.5 % of GDP, with the largest proportion of funding (80 %) coming from public sources (Swedish Higher Education Authority, 2018) ([40]). However, funding has been falling in relative terms, because since 1993 the budget allocation is linked to productivity developments in the private sector. The effect of the reduction is cumulative and has become considerable ([41]). A government inquiry published on 1 February 2019 proposes a broader reform of the governance and financing of higher education (Statens Offentliga Utredningar (SOU), 2019:6).

The tertiary education attainment rate is at an all-time high and the employment rate of recent graduates is among the highest in the EU. In 2017, 91.7 % of graduates aged 20-34 were employed, above the EU average of 84.9 % ([42]). Programmes in health and engineering, which guarantee practically full employment, are the most preferred options ([43]). However, the proportion of graduates in the other science, technology, engineering and maths (STEM) fields — natural sciences, mathematics and statistics, and information and communications technology (ICT) — is at or below the EU average (Graph 4.3.6). Although the number of students graduating in

([38]) Since 2011, teachers should be 'accredited' in the subjects they teach and since autumn 2016 unqualified teachers can teach, but cannot have a permanent employment contract or grade pupils.

([39]) There are variations between municipalities in how they allocate resources (OECD, 2016 and Swedish Agency for Public Management, 2016), and only six in ten compulsory municipality schools say that they do take pupils' migrant and parental background into account in their funding formula (Swedish Association of Local Authorities and Regions (SALAR), 2018a).

([40]) The total expenditure on the higher education sector includes research, the costs of government managing agencies and study support to students.

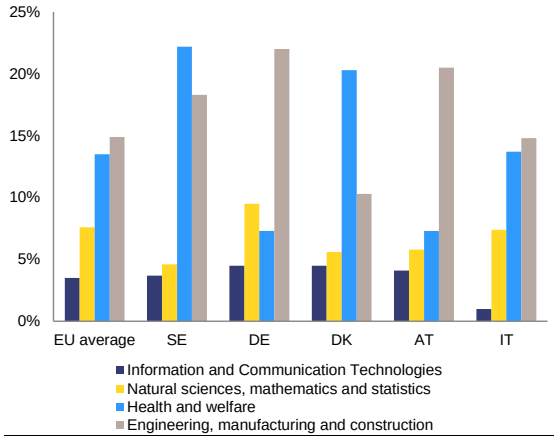
([41]) The mechanism assumes that the higher education sector follows productivity developments of the private sector, so that roughly 1-2 % of the budget allocation is deducted from the yearly price- and wage indexation. However, productivity developments differ substantially between sectors. According to the Swedish Association of University Teachers and Researchers (SULF), the mechanism has had the result that between 1994 and 2016, the salary-related increase of the price- and wage indexation would have been almost 60 % higher had it not been related to private sector productivity increases (SULF, 2018).

([42]) People aged 20-34 who left tertiary education between one and three years before the reference year.

([43]) In 2016, 18.3 % of students graduated in engineering and 22.2 % in health and welfare.

STEM subjects increased by 130 % from 33 000 in 1996 to 77 000 in 2015, there is an unmet demand, in particular for engineers. Since a high proportion of international students study a STEM subject ([44]), recruiting and retaining them could help bridge the gap between supply and demand. Increasing government grants for fee-paying foreign students and having private companies fund more study grants and offer work placements could attract more international students (Wikström et al, 2018 and Statens Offentliga Utredningar (SOU), 2018). To ensure that upper secondary school graduates are well equipped to study STEM options, a national digitisation strategy is being put in place.

Graph 4.3.6: **Proportion of graduates by programme orientation (2016)**



Source: European Commission

The National Digitisation Strategy for the school system aims to enable all children to develop adequate digital skills by 2022. Among 16-24 year-olds the proportion with at least basic digital skills is 89.5 %. The digitisation strategy for compulsory and upper secondary schools focuses on understanding digital tools and media, digitisation's impact on society and individuals, ensuring critical and responsible behaviour, problem solving and translating ideas into action using digital technology, including programming (government, 2017). A revised curriculum entered into force on 1 July 2018. The Swedish National Agency for Education has carried out the first digital national tests with the aim of having all tests digitised by 2022 (European Commission, 2018c).

There is a large and increasing educational performance gap between foreign-born and native-born students. The transition between compulsory and upper secondary schooling continues to be a hurdle for many foreign-born students. At the end of compulsory schooling (at age 16), half of students who migrated after the age of seven do not qualify for an upper secondary 'national programme'. This very high proportion compares to less than 9.2 % for native students. The figure jumps to 71.6 % among those who arrive in the last 4 years of compulsory schooling (National Agency for Education, 2018b). A higher proportion of recent migrants are older and those who migrated after the age of seven have increasingly come from countries with weaker school systems.

Socio-economic background has a growing impact on students' performance (European Commission, 2018a). The place of residence and increased sorting of pupils between schools since the 1990s, have also contributed to growing inequalities. Other factors such as class size or teachers' formal qualifications seem to be less important (Grönqvist et al., 2017).

Sweden's early school leaving rate is relatively low but students born abroad are more likely to leave school early. The overall rate is below the EU average (7.7 % as compared with 10.6 % in 2017), but it has increased since 2014 and there is a growing difference between native-born students (6.2 %) and those born abroad (15.5 %). Since 1 January 2015, municipalities are required to keep records of people under the age of 20 who have not completed upper secondary school and are not in education or training, and to provide them with tailor-made support. Over 100 000 young people (58 % of them men and one-third newly arrived) were registered and eligible to benefit from such support in 2017/2018. The 'introductory programme' at upper secondary level is the most common measure offered by municipalities, designed to help students bridge the gap to the labour market or further education (National Agency for Education, 2018).

([44]) In 2015, close to 31 000 international students started a STEM degree in Sweden, 29 % of all students in these programmes.

4.3.4. INVESTMENT NEEDS

Looking across the labour market, education and social policies, it results that continued investments are important. To maintain Sweden's productivity and long-term inclusive growth, priorities are addressing skills needs, education and training, and social inclusion. Skills shortages and mismatches are among the main obstacles to business investment, pointing to the need to invest more in training of unused and underused labour potential. Using the full labour potential also requires matching investment in the social integration of recently arrived migrants.

4.4. COMPETITIVENESS REFORMS AND INVESTMENT

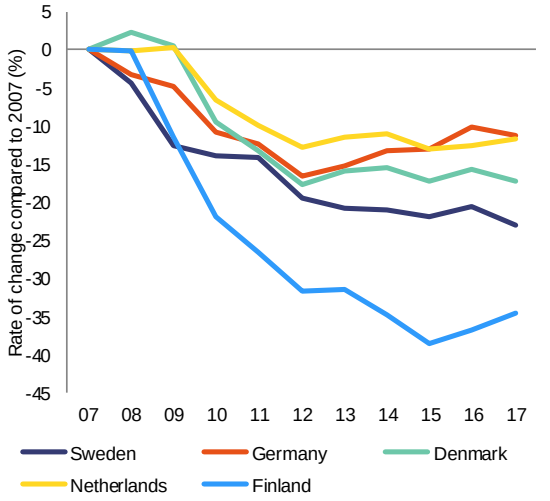
4.4.1. PRODUCTIVITY AND INVESTMENT

Productivity Developments

Productivity in Sweden has stagnated over the past decade. As discussed in Section 1, total factor productivity growth has remained well below rates seen in the pre-crisis period, thus weighing on the economy's output potential. This may partly be an indication of diminishing returns on technological investments, combined with a slower pace of development in the information and communications technologies (ICT) sector since 2007. It is also linked to a structural compositional shift towards the labour-intensive services sector, which on average has lower productivity than the industrial sector.

Sweden has experienced a secular decline in export market share. Sweden's share of world exports has been steadily falling since the 2000s, broadly in line with peer countries (Graph 4.4.1). The main driver for this is the integration of emerging economies into global supply chains, which has resulted in world trade outpacing export growth for many industrialised countries (European Commission, 2018a). Therefore, Sweden's declining export market share does not suggest a competitiveness issue. Direct metrics of cost competitiveness confirm this: Sweden's real effective exchange rate has depreciated by about 4 % over the past three years (mainly reflecting a weakening krona), and unit labour costs have evolved broadly in line with the euro area. Sweden also does well in terms of non-cost competitiveness, including via an attractive business environment (see Section 4.4.4) and strong research and innovation performance (discussed under the heading '*Research, innovation and digitisation*' below).

Graph 4.4.1: **Cumulative export market share loss since 2007 for Sweden and selected peer countries**



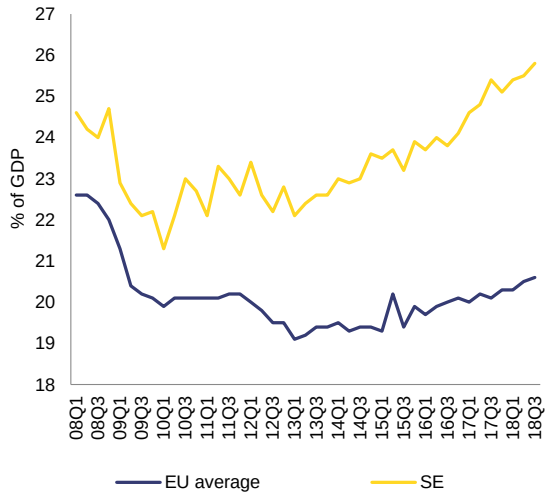
Source: European Commission

Investment

Investment continued its upward trend in 2017 but stagnated in 2018. Particularly since 2013, the take-up of investment levels after the crisis was much faster in Sweden than in the EU as a whole (Graph 4.4.2). This was largely driven by higher investment in dwellings and ICT. Investment in intellectual property products, which accounts for a quarter of total investment (European Commission, 2018a), is still at a high level in Sweden. However, its share of total investment decreased from 28.0 % to 24.9 % in 2010-2017 (EU average: 19.3 % in 2017).

Investment and economic conditions for private companies are positive overall. According to a recent Eurobarometer survey (European Commission, 2018f), Sweden has the third highest share of companies that are able to make all the desired investments (Sweden: 35 %, EU average: 21 %), after Germany and Denmark and only 6 % of Swedish companies are not able to make any investment at all (EU average: 12 %). The generally good economic situation in Sweden seems to help companies in their investment decisions. 51 % of Swedish companies – as compared with 28 % in the EU – say that demand conditions were no obstacle to investment.

Graph 4.4.2: **Gross fixed capital formation (% of GDP)**



Source: European Commission

Most companies in Sweden report that they are able to invest according to their needs. In 2017, only 14 % of firms reported a too low amount of investment over the last three years. While replacement of existing buildings, machinery, equipment and information technology is still the most important investment purpose, the share of firms investing in new products or services is above the EU average and continues to increase. Some companies perceive a lack of available staff as a principal investment barrier – independent of sector or firm size (European Investment Bank, 2018).

Boosting investment in new housing, education and skills, and maintaining investment in transport infrastructure and R&D can further enhance the Swedish economy. Regarding housing investment, a structural undersupply of dwellings remains despite a significant increase in new construction (see Section 4.2). Moreover, building activity is set to slow in the wake of the late-2017 house price falls. Concerning the educational system, demographic developments will lead to an increase of the numbers of pupils, exacerbating the present shortage of teachers. Investing in education and skills will thus be key to help boost productivity growth and to address the skills mismatch experienced in some parts of the labour market (see Section 4.3). In addition, there is a need to maintain investment in transport infrastructure and R&D at high levels, as discussed below.

Investment in transport infrastructure

Sustained investment in transport infrastructure is set to continue for the next 10 years. The government has announced substantial funding for the upcoming ten-year period. An investment of SEK 700 billion (EUR 66 billion) has been committed through the national plan for infrastructure 2018-2029 adopted in June 2018. This is SEK 100 billion more than for the previous period. It contains major investments to develop the railway system and increase capacity, as well as multiplied investments in fairways and locks compared with the preceding plan (e.g. funds for the important deepening of the fairways at the Port of Gothenburg). These investments have the objective of reducing transport costs, increasing maritime safety and reducing emissions, since they promote the switch of goods transport from roads to railways and shipping.

Research, innovation and digitisation

Sweden remains one of Europe's most innovative economies. Sweden has consistently been one of the top-performing countries in the European Innovation Scoreboard ([45]), both in terms of R&D investment([46]) and outcomes (European Commission, 2018a). Overall, the country benefits from an excellent science base, highly qualified human resources and internationally competitive and innovative large companies, both in the manufacturing and services sector.

Maintaining high levels of investment, favourable framework conditions and a broader innovation base are key to securing this leading position. Sweden's innovation model has traditionally relied on a limited number of large globally active technology companies. The internationalisation of these companies against the backdrop of mergers and acquisitions has, however, led in some cases to headquarters moving abroad. Research and innovation activities of these companies have also become more internationally mobile. In this context, it is essential for Sweden to create an environment that

([45]) Available at: http://ec.europa.eu/docsroom/documents/33147

([46]) Sweden has the highest R&D intensity in the EU, 3.33 % of GDP in 2017, up from 3.27 % in 2016.

nurtures the innovation potential of SMEs and start-ups.

The economy's innovation capacity could be further improved by increased collaboration between academia and SMEs. The share of public R&D financed by the business sector (an important indicator of public-private cooperation) has declined since 2011, with Sweden now ranked below the EU average. While Sweden still performs well on the share of public-private co-publications, notably in engineering science, performance has considerably declined in this area too. Against this backdrop, there is room for boosting knowledge transfer via joint projects, a better matching of the specialisation of the public science base to that of the private sector, exchange of staff between firms and universities and for more university spinoffs to turn research results into new products and services (Tillväxtanalys, 2014)

There are emerging bottlenecks in the supply of high-skilled human resources. Ensuring a supply of specialist human capital is vital to support R&D investment as well as digitisation (see chapter 4.3). This concerns in particular science and engineering graduates, as well as workers with advanced digital skills.

Recent policy initiatives are addressing these key challenges. The Research Bill 2017-2020 provides additional financial resources to support both basic and applied research as well as human resources development, notably within higher education. The bill furthermore launches six new 10-year research programmes. Academia-business cooperation is promoted via Innovation Partnership Programmes ([47]).

Sweden's Smart Industry Strategy recognises the need to enhance digitisation of SMEs([48]). Swedish businesses are embracing digitisation and actively using digital technologies to improve efficiency, productivity and sales. However, SMEs overall somewhat lag behind large companies in this area. To develop innovation capacity in SMEs, the authorities promote projects that validate technology and business concepts, as well as some industry-specific innovation-enhancing measures, such as reducing the processing industry's emissions of greenhouse gases.

([47]) Specific partnership programmes include (i) next generation's travel and transport, (ii) smart cities, (iii) circular and bio-based economy, (iv) life sciences and (v) connected industry and new materials. Further details are available on: http://www.government.se/articles/2016/07/innovation-partnership-programmes--mobilising-new-ways-to-meet-societal-challenges/ .

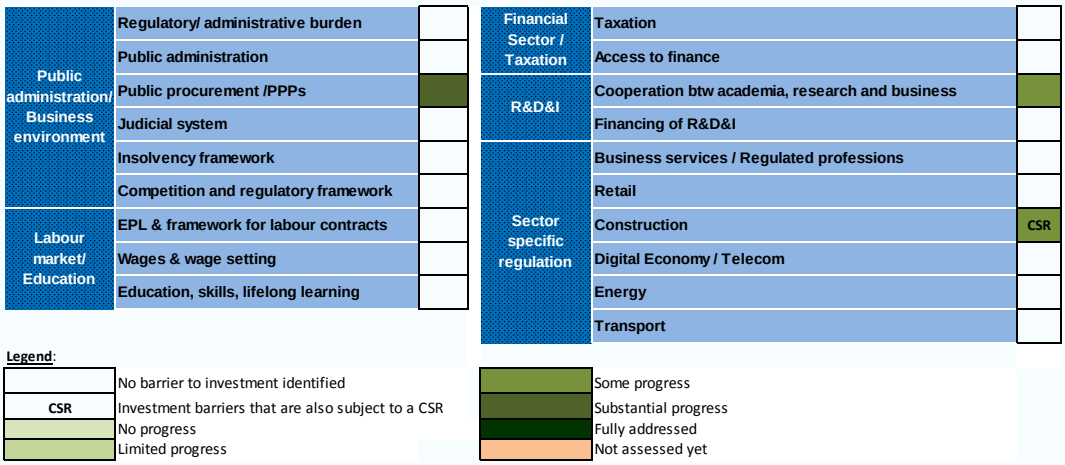
([48]) Smart industry – a strategy for new industrialisation for Sweden. https://www.government.se/information-material/2016/04/smart-industry---a-strategy-for-new-industrialisation-for-sweden/ .

Box 4.4.1: **Investment challenges and reforms in Sweden**

Macroeconomic perspective

Total investment as a % of GDP was above the EU average over the last decade. Both private and public investment have grown faster than GDP and the EU average. Private investment is set to grow at a lower but still robust pace, as residential investment adjusts to lower levels due to lagged effects of 2017 housing market weakness. Public investment in housing, healthcare and education infrastructure is set to remain overall robust in 2019.

Assessment of barriers to investment and ongoing reforms



Barriers to investment in Sweden are overall low (European Commission, 2018a). Some reforms were adopted in public procurement (see Section 4.4.3), research and innovation (see Section 4.4.1) and construction investment. However, scope remains for further measures, particularly on tackling barriers to construction (see Section 4.2.2).

Several institutions promote access to finance for early-stage companies and SMEs. For example, Norrlandsfonden, an independent trust fund, supports the development of companies in Norrbotten, Västerbotten, Västernorrland, Jämtland and Gävleborg (yearly lending volume of around SEK 300 million). ALMI Företagspartner AB provides loans and venture capital, while Saminvest, a fund set up by the government in 2016, makes private equity available and develops the market. It manages assets worth SEK 5 billion.

Selected barriers to investment and priority actions underway

1. Cooperation between academia and business could be further enhanced, particularly for SMEs. Initiatives such as the Innovation Partnership Programme (see Section 4.4.1) could, over time, help promote increased collaboration.

2. Construction investment has been held back by a number of interlinked structural barriers. Sweden has gradually implemented a range of policy steps to tackle these bottlenecks (e.g. streamlining planning processes), coupled with some budgetary support. This contributed to a significant pick-up in residential investment between 2013 and 2017, but some key structural bottlenecks remain (see Section 4.2.2).

4.4.2. SINGLE MARKET INTEGRATION AND SERVICES SECTOR

Energy system

Sweden benefits from a dynamic and competitive energy wholesale market. This is supported by full liberalisation of the wholesale electricity market combined with good connectivity to both the Nordic market and other European countries. Sweden also has a well-functioning, albeit small gas market, which is supplied by one route from Denmark.

Market concentration of power generation is below the EU average and has been falling over the last decade, ensuring competitive pricing. Wholesale electricity prices are among the lowest in the EU. However, they are subject to unpredictable price swings driven by hydrological developments, due to the importance of hydropower in Sweden's overall generation capacity.

The retail electricity market remains competitive due to a large number of suppliers. For a mature market (the Swedish electricity market was liberalised in 1996), consumers' supplier switching rates are healthy, approaching 10 % per year in 2016 due to strong competition among suppliers, which limits their pricing power. As a result, retail electricity price developments tend to be mainly driven by wholesale prices and network charges. Smart meters also support competition and should also facilitate the uptake of new energy services, such as demand response aggregation.

Sweden is well above its 2020 target for renewables in gross final energy consumption. With a share of 53.8 % in 2016, Sweden is already outperforming its 2020 target of 49 %. The country intends to continue to mobilise investments to achieve the 2030 EU Renewable Energy Source target of 32 %.

Sweden submitted its draft integrated National Energy and Climate Plan in June 2018. In the Plan, to be adopted by 31 December 2019 in line with the Regulation on the Governance of the Energy Union and Climate Action ([49]), Sweden will provide an overview of its investment needs until 2030 for the different dimensions of the Energy Union, including renewable energy, energy efficiency, security of supply, and climate mitigation and adaptation. The information provided, including in the draft plan submitted in June 2018, will further contribute to the identification and assessment of energy and climate-related investment needs for Sweden.

Climate Policy

Sweden's climate policy has been successful and remains ambitious. Between 1990 and 2015 the country's greenhouse gas (GHG) emissions fell by 25.1 %, while its GDP per capita increased by 29 %. It is fully on course to meet its EU 2020 and 2030 emission targets, and has set national targets that go well beyond these ([50]). Sweden aims to achieve net zero emissions of GHG by 2045 and have negative emissions thereafter. This long-term objective will require significant additional efforts to reduce emissions in all main sectors of the economy.

These ambitions are enshrined in Sweden's Climate Act, which includes regular monitoring and policy assessment provisions. The Riksdag adopted the Act in 2017, setting out the national climate policy framework. In addition to establishing specific emissions reduction goals, the Act requires the government to provide a climate report alongside its annual budget bill. This report assesses the need of additional policies and

([49]) Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council.

([50]) Sweden's GHG emissions outside the EU Emissions Trading System (ETS) are projected to decline by 32 % by 2020, thus exceeding its EU target by 15 percentage points. The 2017 Climate Act sets a target for Sweden's non-ETS GHG emissions in 2030 at 63 % below 1990 emissions. This goal is more ambitious than Sweden's 2030 emissions reduction target of 40 % below 2005 as laid down in the EU's Effort Sharing Regulation. An additional national target is set for the transport sector, where emissions from domestic transport are to be reduced by at least 70 % by 2030 compared with 2010.

measures to achieve the long-term target. Every fourth year, the government presents a climate action plan specifying planned measures in more detail. The Act also establishes a Climate Policy Advisory Board (*Klimatpolitiskt råd*) that monitors the progress of Sweden's climate policy independently of the government.

In order to meet its 2030 emissions reduction targets, Sweden is focusing on measures in the transport sector. Transport emissions account for a third of total GHG emissions and more than half of emissions in sectors outside the EU Emissions Trading System (ETS). Measures to cut GHG emissions in this sector include incentives for low-emission vehicles and fuels. For instance, in July 2018, a bonus/malus system was introduced that makes it more attractive to purchase new plug-in hybrids and electric cars. From 2020, municipalities can introduce three different kinds of low-emission zones, one of which only allows purely electric cars, fuel cell cars and low-emission gas cars. High standards are also set for heavy vehicles.

Environmental Taxation

Environmental tax revenues as a share of GDP have been falling since 2010 and are relatively low compared to other Member States. This decline is partially due to the intended behavioural impact of taxes, and an increased substitution to biofuels in the transport sector.

The recent phasing out of exemptions and reductions in tax rates for carbon and energy should increase environmental revenues. Discounts in the carbon tax on heating fuels in the non-ETS sectors have been progressively reduced, and ultimately largely abolished in 2018. Since 2017, taxes on petrol and diesel are subject to an annual increase of two percentage points on top of consumer price inflation. Substantial progress has also been made in reducing the 'diesel differential' (difference in price of diesel versus petrol) by gradually adjusting the respective excise tax rates. However, some tax exemptions remain in place for fossil fuel use, e.g. in motor vehicles, domestic shipping and aviation, agriculture, and various industrial sectors (OECD, 2018a).

4.4.3. REGIONAL DIMENSION AND INFRASTRUCTURE

Regional Differences

Sweden's regions have high levels of prosperity, but recently growth has been concentrated in urban areas. GDP per head was above the EU average in all Swedish regions except North Middle Sweden (99 % of the EU average). However, there is a growing concentration of economic activity in larger city regions. The metropolitan areas account for 49 % of national GDP and 41 % of employment. Between 2000 and 2016, the three Swedish metropolitan areas Stockholm, Gothenburg and Malmö generated 62 % of national GDP growth, with Stockholm alone being responsible for 44 % (OECD, 2018c), thereby slightly widening regional divergence.

Regional development depends on the endowment of skills and sectoral specialisation. Regions with a more diversified tradable sector performed relatively well, whereas those with a manufacturing profile had a more subdued development (Tillväxtverket, 2018). In addition, regions with an initial high share of graduates attracted additional high-skilled indivuduals, further increasing economic performance (Tillväxtanalys, 2018). Because of this tendency towards agglomeration, middle-income regions risk falling behind in productivity and growth. Over 2010-2015 their investment rates were significantly below the Swedish average (18-20 % of GDP vs. 23 % for Sweden as a whole). This lower level has repercussions on infrastructure, R&D investments ([51]) and innovation performance ([52]). Some commodity-based regions like the Northern Sparsely Populated Areas are particularly vulnerable to shifts in global demand and competition. They also face the problem of achieving critical mass for their specialisations and difficulties in connecting to markets.

Sweden has developed Smart Specialisation strategies to foster regional development. Eighteen out of 21 counties have already put in

([51]) R&D expenditure in 2015 was below 1.5 % of GDP, while other Swedish regions had 3-4 %.

([52]) The Regional Innovation Scoreboard level ranges from 102 (North Central Sweden) to 165 (Stockholm, the most innovative region in the EU), with the EU average equal to 100 (European Commission, 2017b).

place Smart Specialisation strategies (Research and Innovation Strategies for Smart Specialisation). The aim is to mobilise stakeholders to identify priority areas with the greatest potential for innovation and growth based on the regions comparative advantage and existing assets and resources. Investments from the European Regional Development Fund already support these strategies within the current programming period, in particular within research and innovation with a special focus on SMEs. This support is expected to continue in the next period. In order to reach full effect, the Research and Innovation Strategies for Smart Specialisation system would profit from politically-anchored regional strategies and better coordination with national level priorities.

Transport Sector

Transport infrastructure could contribute to improved trade, mobility and regional cohesion. Among EU Member States, Swedish transport infrastructure ranks 13th in the Global Competitiveness Report (World Economic Forum, 2018) with railroad infrastructure at only 25th. The additional investment envisaged by the government (see Section 4.4.1) aims to upgrade the different transport modes (railway, road and ship), thereby facilitating interconnections across regions and fostering trade, labour mobility and economic integration. In addition, the intended shift of traffic from road to rail and maritime modes should reduce the environmental impact of transport.

The expansion of the high-speed rail network could support labour market connectivity and new residential developments. The national plan for infrastructure for 2018-2029 contains three routes for high-speed trains. The objective is to better connect Stockholm, Gothenburg and Malmö. Expansion is envisaged to take place at a pace allowed by the economy and in a cost-effective manner. In parallel, the National Negotiation on Housing and Infrastructure has agreed a framework with municipalities of the three metropolitan regions about central government co-financing of investments in public transport and cycling. In total, municipalities have committed to building 193 130 housing units, in particular between Uppsala and the county border with Stockholm.

Broadband

Sweden is among the best performers in providing access to ultrafast broadband, but reaching its 2020 target could be a challenge. End users have good accessibility in terms of both fixed and mobile broadband. The government's target is that 95 % of all households and businesses will have access to broadband of at least 100 Mbit/s by 2020. Currently, coverage of this speed category is 73 % (European Commission, 2018c). However, the Swedish Post and Telecom Authority (*Post- och Telestyrelsen*) predicts that only 87-90 % will be covered by 2020. This is due to greater cost uncertainty associated with laying fibre optic cables in sparsely populated areas (Post- och Telestyrelsen, 2018). Although the Authority expects everyone to have access to at least 30 Mbit/s by 2020, it called on the public sector to facilitate investments in sparsely populated areas so that households and business there can benefit from digitisation and related business opportunities.

4.4.4. INSTITUTIONAL QUALITY AND GOVERNANCE

Business Environment

Sweden continues to have a high-quality and competitive business environment. The country stands out in public administration, access to finance, innovation and ability of SMEs to exploit international opportunities. The overall administrative burden for companies is low and SMEs appreciate the stability of the regulatory environment. As part of the national export strategy, coordination of export support services is offered at regional level to SMEs wishing to export their goods and services (European Commission, 2018g).

The ongoing digitisation of the public sector benefits Swedish businesses. Through the e-business portal www.verksamt.se over 45 different government agencies provide information, targeted support and enable e.g. company registrations and tax calculation. A new agency for digital government will develop, coordinate and support public sector digitisation at both central and local level. The agency was set up in September 2018 with a budget of SEK 98.5 million for 2019.

Companies have good access to finance. The 2018 survey on the access to finance of enterprises (SAFE) shows that access to finance is the most important concern for only 7 % of Swedish SMEs (2017: 9 %) (European Commission, 2018h). Venture capital is sufficiently available and several private and public funds are active on the market. Access to public financial support has further improved and fewer SMEs report difficulties (European Commission, 2018g).

Some specific challenges remain for Swedish companies. According to the 2018 survey on the access to finance of enterprises, the three most important issues for SMEs are customers, the availability of skilled labour (see chapter 4.3) and costs of production or labour. In addition, the slow processing times of work permit extensions for highly-skilled non-EU professionals also continues to pose a challenge (European Commission, 2018g).

The female entrepreneurship rate in Sweden is rather low. The currently good labour market conditions might contribute to a general lack of people wanting to start a business. While entrepreneurship framework conditions are good and entrepreneurs have a high status (European Commission, 2018g), women are underrepresented on private company boards and among entrepreneurs. Both the shares of Swedish women who are self-employed with employees (1.6 %) and the share of own-account workers (3.8 %) are among the lowest in the OECD. Fostering female entrepreneurship is crucial to levelling out differences (OECD, 2017b).

Public Procurement

The public procurement system is well functioning and its transparency has improved. The proportion of contract award notices without information on the contract value has significantly decreased after a number of years([53]). This should have a very positive impact on identifying possible unjustified modifications of contracts and on verifying the appropriateness of prices paid. However, problems remain in a few specific areas: in particular, professionalisation of public procurers in the municipalities could reduce the overall level of irregularities in public procurement.

([53]) From 87 % in 2015 to 3 % in 2018 (against 2 % on average across the European Economic Area).

ANNEX A: OVERVIEW TABLE

Commitments	Summary assessment ([54])
2018 country-specific recommendations (CSRs)	
CSR 1: Address risks related to high household debt by gradually reducing the tax deductibility of mortgage interest payments or increasing recurrent property taxes. Stimulate residential construction where shortages are most pressing, in particular by removing structural obstacles to construction, and improve the efficiency of the housing market, including by introducing more flexibility in setting rental prices and revising the design of the capital gains tax.	Sweden has made **Limited Progress** in addressing CSR 1
• Address risks related to high household debt by gradually reducing the tax deductibility of mortgage interest payments or increasing recurrent property taxes.	• **No Progress.** No measures have been announced to adjust the relevant fiscal incentives.
• Stimulate residential construction where shortages are most pressing, in particular by removing structural obstacles to construction,	• **Some Progress.** Sweden is continuing with the gradual implementation of the '22-point plan' to increase residential construction and improve the efficiency of the housing sector. The authorities have also proceeded with an initiative to raise participation of foreign firms in the Swedish construction sector, including by

([54]) The following categories are used to assess progress in implementing the country-specific recommendations (CSRs):

No progress: The Member State has not credibly announced nor adopted any measures to address the CSR. This category covers a number of typical situations, to be interpreted on a case-by-case basis taking into account country-specific conditions. They include the following:
- no legal, administrative, or budgetary measures have been announced in the national reform programme, in any other official communication to the national Parliament/relevant parliamentary committees or the European Commission, publicly (e.g. in a press statement or on the government's website);
- no non-legislative acts have been presented by the governing or legislative body;
- the Member State has taken initial steps in addressing the CSR, such as commissioning a study or setting up a study group to analyse possible measures to be taken (unless the CSR explicitly asks for orientations or exploratory actions). However, it has not proposed any clearly-specified measure(s) to address the CSR.

Limited progress: The Member State has:
- announced certain measures but these address the CSR only to a limited extent; and/or
- presented legislative acts in the governing or legislative body but these have not been adopted yet and substantial further, non-legislative work is needed before the CSR is implemented;
- presented non-legislative acts, but has not followed these up with the implementation needed to address the CSR.

Some progress: The Member State has adopted measures
- that partly address the CSR; and/or
- that address the CSR, but a fair amount of work is still needed to address the CSR fully as only a few of the measures have been implemented. For instance, a measure or measures have been adopted by the national Parliament or by ministerial decision, but no implementing decisions are in place.

Substantial progress: The Member State has adopted measures that go a long way towards addressing the CSR and most of them have been implemented.

Full implementation: The Member State has implemented all measures needed to address the CSR appropriately.

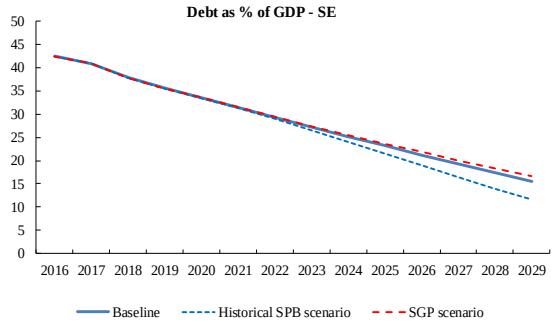
	setting up an online portal with English-language info on Swedish building and planning regulations.
• and improve the efficiency of the housing market, including by introducing more flexibility in setting rental prices and revising the design of the capital gains tax.	• **Limited Progress.** In January 2019, the Swedish authorities announced that reforms will be prepared to make the rent-setting system more flexible. There are also plans to make deferred capital gains taxes on sold properties in the owner-occupancy market interest-free.
Europe 2020 (national targets and progress)	
Employment rate target set in the 2014 NRP: well over 80 %.	Employment rate (%) in Q3 2018: 82.5 % (2016: 81.2%; 2015: 80.4 %; 2014: 80.0 %; 2013: 79.8 %) The EU-wide target was met already before the crisis in 2007-2008 (80.4 % in 2008), before a drop in the indicator due to the 2008-2009 crisis. Since then progress has picked up and Swedish labour market performance remains solid with a continuously improving trend, and a level now back to pre-crisis record highs. Sweden has had the highest employment rate in the European Union for several years in a row.
R&D target**:** 4 % of GDP	In 2017, R&D intensity in Sweden was 3.33% of GDP composed of 71% private investment (2.35% of GDP) and 29% public investment (0.98% of GDP). Limited progress towards the target. While public R&D intensity declined slightly over the 2010-2017 period, business expenditure on R&D as a percentage of GDP increased by 0.02 percentage points per year over the same period, resulting in a 0.12 pp increase in total R&D intensity. Sweden will reach its national target for 2020 only if the stagnation in public R&D intensity can be overcome and if the increase in business R&D intensity can be accelerated.
National greenhouse gas (GHG) emissions target: -17 % in 2020 compared to 2005 (in non-ETS sectors)	Between 2005 and 2017, Sweden's GHG emissions in the non-ETS sectors fell by 25 %. They are projected to decline by 32 % overall by 2020, thus overachieving the national target by 15 percentage points.
2020 Renewable energy target: 49 % of final	At 54,5 %, Sweden has already exceeded its 2020

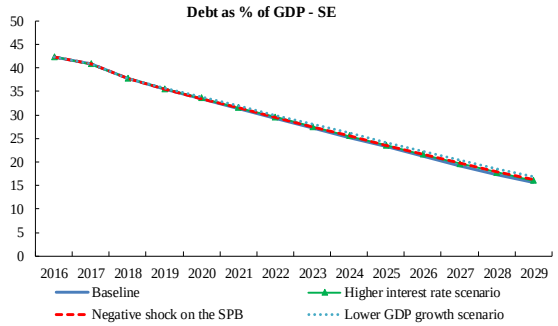
energy consumption	target.
Sweden's 2020 energy efficiency target is 43.4 Mtoe expressed in primary energy consumption and 30.3 Mtoe expressed in final energy consumption	Sweden's primary energy consumption in 2017 was of 46.1 Mtoe, a decrease compared to 46.9 Mtoe in 2016. Final energy consumption in 2017 reached 32.6 Mtoe, a slight increase compared to 2016. More efforts are needed to meet the indicative national 2020 target.
Early school leaving target: below 7 %	Early leavers from education and training (share of the population aged 18-24 with at most lower secondary education and not in further education or training) in 2017: 7.7 % (2016: 7.4 %; 2015: 7 %; 2014: 6.7 %; 2013: 7.1 %). The rate is above the 7 % target.
Tertiary education target: 45-50 %	Tertiary educational attainment (share of population 30-34 having successfully completed tertiary education) in 2017: 51.3 % (2016: 51 %; 2015: 50.2 %; 2014: 49.9 %; 2013: 48.3 %). The target of 45-50 % has been achieved.
Target on the reduction of population at risk of poverty or social exclusion in number of persons: Reducing to well under 14 % the number of people aged 20-64 who are not in the labour force (except full-time students), long-term unemployed or on long-term sick leave.	The corresponding indicator has reached 11.4 % in 2017, according to feedback from national authorities (2016: 12.0 %; 2015: 12.4 %; 2014: 12.6 %; 2013: 12.7 %). The target has been reached and the trend remains good.

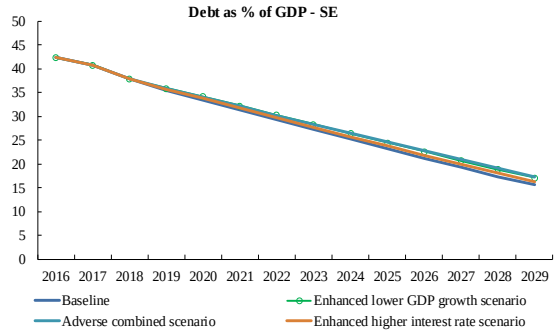
ANNEX B: COMMISSION DEBT SUSTAINABILITY ANALYSIS AND FISCAL RISKS

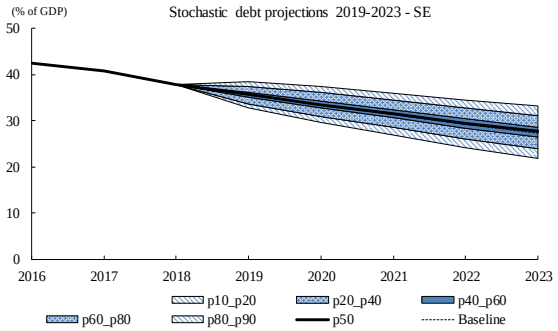
General Government debt projections under baseline, alternative scenarios and sensitivity tests

SE - Debt projections baseline scenario	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Gross debt ratio	**40.8**	**37.8**	**35.5**	**33.5**	**31.4**	**29.3**	**27.2**	**25.2**	**23.2**	**21.2**	**19.3**	**17.4**	**15.6**
Changes in the ratio (-1+2+3)	*-1.5*	*-3.0*	*-2.3*	*-2.1*	*-2.1*	*-2.1*	*-2.1*	*-2.0*	*-2.0*	*-2.0*	*-2.0*	*-1.9*	*-1.8*
of which													
(1) Primary balance (1.1+1.2+1.3)	**1.9**	**1.3**	**1.2**	**1.2**	**1.2**	**1.2**	**1.3**	**1.3**	**1.4**	**1.4**	**1.4**	**1.4**	**1.3**
(1.1) Structural primary balance *(1.1.1-1.1.2+1.1.3)*	***1.7***	***1.2***	***1.2***	***1.3***	***1.3***	***1.3***	***1.3***	***1.3***	***1.4***	***1.4***	***1.4***	***1.4***	***1.3***
(1.1.1) Structural primary balance (bef. CoA)	*1.7*	*1.2*	*1.2*	*1.3*	*1.3*	*1.3*	*1.3*	*1.3*	*1.3*	*1.3*	*1.3*	*1.3*	*1.3*
(1.1.2) Cost of ageing					*0.1*	*0.1*	*0.2*	*0.2*	*0.2*	*0.3*	*0.3*	*0.3*	*0.4*
(1.1.3) Others (taxes and property incomes)					*0.1*	*0.1*	*0.2*	*0.2*	*0.3*	*0.4*	*0.4*	*0.5*	*0.5*
(1.2) Cyclical component	***0.2***	***0.2***	***0.0***	***-0.1***	***-0.1***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
(1.3) One-off and other temporary measures	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
(2) Snowball effect (2.1+2.2+2.3)	**-1.4**	**-1.6**	**-1.1**	**-0.9**	**-0.9**	**-0.8**	**-0.8**	**-0.7**	**-0.6**	**-0.6**	**-0.5**	**-0.5**	**-0.4**
(2.1) Interest expenditure	*0.4*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*
(2.2) Growth effect	*-0.9*	*-0.9*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.5*	*-0.5*	*-0.4*	*-0.4*	*-0.4*	*-0.3*	*-0.3*
(2.3) Inflation effect	*-0.9*	*-1.0*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.5*	*-0.5*	*-0.5*	*-0.4*	*-0.4*	*-0.3*
(3) Stock-flow adjustments	**1.8**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**









Short term	Medium term	S1	Debt sustainability analysis (detail)						DSA	S2	Long term
				Baseline	Historical SPB	Lower GDP growth	Higher interest rate	Negative shock on SPB	Stochastic projections			
LOW (S0 = 0.2)	LOW	LOW (S1 = -4.6)	Risk category	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW (S2 = 1.1)	LOW
			Debt level (2029)	15.6	11.7	16.9	16.0	16.3				
			Debt peak year	2018	2018	2018	2018	2018				
			Percentile rank	34.0%	28.0%							
			Probability debt higher						1.1%			
			Dif. between percentiles						11.3			

Note: For further information, see the European Commission Fiscal Sustainability Report (FSR) 2018.

[1] The first table presents the baseline no-fiscal policy change scenario projections. It shows the projected government debt dynamics and its decomposition between the primary balance, snowball effects and stock-flow adjustments. Snowball effects measure the net impact of the counteracting effects of interest rates, inflation, real GDP growth (and exchange rates in some countries). Stock-flow adjustments include differences in cash and accrual accounting, net accumulation of assets, as well as valuation and other residual effects.

[2] The charts present a series of sensitivity tests around the baseline scenario, as well as alternative policy scenarios, in particular: the historical structural primary balance (SPB) scenario (where the SPB is set at its historical average), the Stability and Growth Pact (SGP) scenario (where fiscal policy is assumed to evolve in line with the main provisions of the SGP), a higher interest rate scenario (+1 pp. compared to the baseline), a lower GDP growth scenario (-0.5 pp. compared to the baseline) and a negative shock on the SPB (calibrated on the basis of the forecasted change). An adverse combined scenario and enhanced sensitivity tests (on the interest rate and growth) are also included, as well as stochastic projections. Detailed information on the design of these projections can be found in the FSR 2018.

[3] The second table presents the overall fiscal risk classification over the short, medium and long-term.

a. For the short-term, the risk category (low/high) is based on the S0 indicator. S0 is an early-detection indicator of fiscal stress in the upcoming year, based on 25 fiscal and financial-competitiveness variables that have proven in the past to be leading indicators of fiscal stress. The critical threshold beyond which fiscal distress is signalled is 0.46.

b. For the medium-term, the risk category (low/medium/high) is based on the joint use of the S1 indicator and of the DSA results. The S1 indicator measures the fiscal adjustment required (cumulated over the 5 years following the forecast horizon and sustained thereafter) to bring the debt-to-GDP ratio to 60 % by 2033. The critical values used are 0 and 2.5 pps. of GDP. The DSA classification is based on the results of 5 deterministic scenarios (baseline, historical SPB, higher interest rate, lower GDP growth and negative shock on the SPB scenarios) and the stochastic projections. Different criteria are used such as the projected debt level, the debt path, the realism of fiscal assumptions, the probability of debt stabilisation, and the size of uncertainties.

c. For the long-term, the risk category (low/medium/high) is based on the joint use of the S2 indicator and the DSA results. The S2 indicator measures the upfront and permanent fiscal adjustment required to stabilise the debt-to-GDP ratio over the infinite horizon, including the costs of ageing. The critical values used are 2 and 6 pps. of GDP. The DSA results are used to further qualify the long-term risk classification, in particular in cases when debt vulnerabilities are identified (a medium / high DSA risk category).

ANNEX C: STANDARD TABLES

Table C.1: **Financial market indicators**

	2013	2014	2015	2016	2017	2018
Total assets of the banking sector (% of GDP)[1)]	278,5	288,1	285,4	284,3	292,6	301,3
Share of assets of the five largest banks (% of total assets)	58,3	58,5	57,8	56,3	58,2	-
Foreign ownership of banking system (% of total assets)[2)]	6,2	6,9	7,2	8,2	7,3	6,3
Financial soundness indicators:[2)]						
- non-performing loans (% of total loans)	-	1,3	1,3	1,2	1,3	1,3
- capital adequacy ratio (%)	12,3	22,2	24,1	26,3	25,9	25,9
- return on equity (%)[3)]	11,1	11,8	11,2	11,9	10,9	12,7
Bank loans to the private sector (year-on-year % change)[1)]	3,0	5,1	4,4	7,3	7,0	5,9
Lending for house purchase (year-on-year % change)[1)]	5,4	6,4	8,5	7,6	7,3	5,9
Loan to deposit ratio[2)]	-	161,8	177,8	178,0	172,7	160,0
Central Bank liquidity as % of liabilities[1)]	0,0	0,0	0,0	0,0	0,0	0,0
Private debt (% of GDP)	195,4	194,7	188,3	188,2	194,4	-
Gross external debt (% of GDP)[2)] - public	18,7	21,9	20,3	16,9	14,6	11,7
- private	55,5	55,4	53,5	50,1	49,9	50,4
Long-term interest rate spread versus Bund (basis points)*	55,1	55,3	22,3	45,0	33,3	25,3
Credit default swap spreads for sovereign securities (5-year)*	14,3	9,9	9,5	14,2	10,9	6,9

(1) Latest data Q3 2018. Includes not only banks but all monetary financial institutions excluding central banks.
(2) Latest data Q2 2018.
(3) Quarterly values are annualised.
(*) Measured in basis points.
Source: European Commission (long-term interest rates); World Bank (gross external debt); Eurostat (private debt); European Central Bank (all other indicators).

Table C.2: **Headline Social Scoreboard indicators**

	2013	2014	2015	2016	2017	2018 [6]
Equal opportunities and access to the labour market						
Early leavers from education and training (% of population aged 18-24)	7.1	6.7	7.0	7.4	7.7	:
Gender employment gap (pps)	5.0	4.6	4.2	3.8	4.0	4.3
Income inequality, measured as quintile share ratio (S80/S20)	4.0	4.2	4.1	4.3	4.3	:
At-risk-of-poverty or social exclusion rate[1] (AROPE)	18.3	18.2	18.6	18.3	17.7	:
Young people neither in employment nor in education and training (% of population aged 15-24)	7.5	7.2	6.7	6.5	6.2	:
Dynamic labour markets and fair working conditions[†]						
Employment rate (20-64 years)	79.8	80.0	80.5	81.2	81.8	82.5
Unemployment rate[2] (15-74 years)	8.0	7.9	7.4	6.9	6.7	6.3
Long-term unemployment rate[3] (as % of active population)	1.4	1.4	1.5	1.3	1.2	1.2
Gross disposable income of households in real terms per capita[4] (Index 2008=100)	109.6	111.6	113.3	115.9	116.6	:
Annual net earnings of a full-time single worker without children earning an average wage (levels in PPS, three-year average)	24988	25612	25892	25992	:	:
Annual net earnings of a full-time single worker without children earning an average wage (percentage change, real terms, three-year average)	1.5	2.3	1.8	1.5	:	:
Public support / Social protection and inclusion						
Impact of social transfers (excluding pensions) on poverty reduction[5]	44.6	48.0	45.3	45.8	46.1	:
Children aged less than 3 years in formal childcare	55.0	56.8	64.0	51.0	52.7	:
Self-reported unmet need for medical care	2.1	1.7	1.3	1.6	1.4	:
Individuals who have basic or above basic overall digital skills (% of population aged 16-74)	:	:	72.0	69.0	77.0	:

(1) People at risk of poverty or social exclusion (AROPE): individuals who are at risk of poverty (AROP) and/or suffering from severe material deprivation (SMD) and/or living in households with zero or very low work intensity (LWI).
(2) Unemployed persons are all those who were not employed but had actively sought work and were ready to begin working immediately or within two weeks.
(3) Long-term unemployed are people who have been unemployed for at least 12 months.
(4) Gross disposable household income is defined in unadjusted terms, according to the draft Joint Employment Report 2019.
(5) Reduction in percentage of the risk of poverty rate, due to social transfers (calculated comparing at-risk-of poverty rates before social transfers with those after transfers; pensions are not considered as social transfers in the calculation).
(6) Average of first three quarters of 2018 for the employment rate, long-term unemployment rate and gender employment gap. Data for unemployment rate is seasonally adjusted (annual series, for EE, EL, HU, IT and UK data based on first three quarters of 2018).
Source: Eurostat

Table C.3: **Labour market and education indicators**

Labour market indicators	**2013**	**2014**	**2015**	**2016**	**2017**	**2018** [4]
Activity rate (15-64)	81.1	81.5	81.7	82.1	82.5	:
Employment in current job by duration						
From 0 to 11 months	17.2	17.8	18.3	18.9	19.5	:
From 12 to 23 months	9.9	10.0	10.0	10.7	11.8	:
From 24 to 59 months	16.5	17.6	17.3	17.1	17.1	:
60 months or over	55.7	53.9	53.6	52.6	50.9	:
Employment growth* (% change from previous year)	1.0	1.4	1.5	1.9	2.3	1.8
Employment rate of women (% of female population aged 20-64)	77.2	77.6	78.3	79.2	79.8	80.3
Employment rate of men (% of male population aged 20-64)	82.2	82.2	82.5	83.0	83.8	84.6
Employment rate of older workers* (% of population aged 55-64)	73.6	74.0	74.5	75.5	76.4	77.7
Part-time employment* (% of total employment, aged 15-64)	24.7	24.5	24.3	23.9	23.3	22.9
Fixed-term employment* (% of employees with a fixed term contract, aged 15-64)	16.3	16.8	16.6	16.1	16.1	15.8
Participation in activation labour market policies (per 100 persons wanting to work)	39.5	40.6	42.1	41.0	:	:
Transition rate from temporary to permanent employment (3-year average)	40.8	40.0	38.4	37.7	37.7	:
Youth unemployment rate (% active population aged 15-24)	23.6	22.9	20.4	18.9	17.8	16.8
Gender gap in part-time employment	24.9	24.4	23.1	22.6	21.3	20.7
Gender pay gap[1] (in undadjusted form)	14.6	13.8	14.0	13.3	12.6	:
Education and training indicators	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Adult participation in learning (% of people aged 25-64 participating in education and training)	28.4	29.2	29.4	29.6	30.4	:
Underachievement in education[2]	:	:	20.8	:	:	:
Tertiary educational attainment (% of population aged 30-34 having successfully completed tertiary education)	48.3	49.9	50.2	51.0	51.3	:
Variation in performance explained by students' socio-economic status[3]	:	:	12.2	:	:	:

* Non-scoreboard indicator

(1) Difference between the average gross hourly earnings of male paid employees and of female paid employees as a percentage of average gross hourly earnings of male paid employees. It is defined as "unadjusted", as it does not correct for the distribution of individual characteristics (and thus gives an overall picture of gender inequalities in terms of pay). All employees working in firms with ten or more employees, without restrictions for age and hours worked, are included.

(2) PISA (OECD) results for low achievement in mathematics for 15 year-olds.

(3) Impact of socio-economic and cultural status on PISA (OECD) scores. Values for 2012 and 2015 refer respectively to mathematics and science.

(4) Average of first three quarters of 2018. Data for youth unemployment rate is seasonally adjusted (annual series, for EE, EL, HU, IT and UK data based on first three quarters of 2018).

Source: Eurostat, OECD

Table C.4: **Social inclusion and health indicators**

	2012	2013	2014	2015	2016	2017
Expenditure on social protection benefits* (% of GDP)						
Sickness/healthcare	7.3	7.5	7.5	7.5	7.5	:
Disability	3.6	3.6	3.5	3.3	3.2	:
Old age and survivors	12.6	13.1	12.8	12.6	12.6	:
Family/children	3.0	3.1	3.1	3.0	3.0	:
Unemployment	1.2	1.3	1.1	1.0	1.0	:
Housing	0.5	0.5	0.5	0.4	0.4	:
Social exclusion n.e.c.	0.7	0.7	0.8	0.9	1.4	:
Total	28.9	29.7	29.2	28.8	29.0	:
of which: means-tested benefits	0.8	0.8	0.8	0.7	0.7	:
General government expenditure by function (% of GDP, COFOG)						
Social protection	20.8	21.3	20.8	20.4	20.6	:
Health	6.9	7.0	7.0	6.9	6.9	:
Education	6.5	6.6	6.6	6.5	6.6	:
Out-of-pocket expenditure on healthcare (% of total health expenditure)	15.4	15.5	15.5	15.5	15.2	:
Children at risk of poverty or social exclusion (% of people aged 0-17)*	19.4	20.2	20.5	19.8	19.9	19.4
At-risk-of-poverty rate[1] (% of total population)	15.2	16.0	15.6	16.3	16.2	15.8
In-work at-risk-of-poverty rate (% of persons employed)	7.2	7.6	7.7	8.0	6.7	6.9
Severe material deprivation rate[2] (% of total population)	1.8	1.9	1.0	1.1	0.8	1.1
Severe housing deprivation rate[3], by tenure status						
Owner, with mortgage or loan	0.8	0.5	0.5	0.5	0.5	0.8
Tenant, rent at market price	3.7	4.1	5.0	6.8	6.7	6.1
Proportion of people living in low work intensity households[4] (% of people aged 0-59)	8.1	9.4	9.0	8.7	8.5	8.8
Poverty thresholds, expressed in national currency at constant prices*	116749	118780	119560	122901	124757	125922
Healthy life years (at the age of 65)						
Females	:	13.8	16.7	16.8	16.6	:
Males	:	12.9	15.2	15.7	15.1	:
Aggregate replacement ratio for pensions[5] (at the age of 65)	0.6	0.6	0.6	0.6	0.6	0.6
Connectivity dimension of the Digital Economy and Society Inedex (DESI)[6]	:	:	67.7	69.8	72.2	75.5
GINI coefficient before taxes and transfers*	43.6	43.9	44.7	44.2	48.2	48.2
GINI coefficient after taxes and transfers*	24.8	24.9	25.4	25.2	27.6	28.0

* Non-scoreboard indicator

(1) At-risk-of-poverty rate (AROP): proportion of people with an equivalised disposable income below 60 % of the national equivalised median income.

(2) Proportion of people who experience at least four of the following forms of deprivation: not being able to afford to i) pay their rent or utility bills, ii) keep their home adequately warm, iii) face unexpected expenses, iv) eat meat, fish or a protein equivalent every second day, v) enjoy a week of holiday away from home once a year, vi) have a car, vii) have a washing machine, viii) have a colour TV, or ix) have a telephone.

(3) Percentage of total population living in overcrowded dwellings and exhibiting housing deprivation.

(4) People living in households with very low work intensity: proportion of people aged 0-59 living in households where the adults (excluding dependent children) worked less than 20 % of their total work-time potential in the previous 12 months.

(5) Ratio of the median individual gross pensions of people aged 65-74 relative to the median individual gross earnings of people aged 50-59.

(6) Fixed broadband take up (33%), mobile broadband take up (22%), speed (33%) and affordability (11%), from the Digital Scoreboard.

Source: Eurostat, OECD

Table C.5: **Product market performance and policy indicators**

Performance indicators	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Labour productivity per person[1] growth (t/t-1) in %						
Labour productivity growth in industry	-2.57	0.31	0.93	-0.62	2.94	1.63
Labour productivity growth in construction	-7.57	-4.61	0.36	2.67	-0.78	1.00
Labour productivity growth in market services	0.94	2.59	3.10	6.50	1.22	-0.12
Unit Labour Cost (ULC) index[2] growth (t/t-1) in %						
ULC growth in industry	5.82	1.48	1.75	2.13	0.95	0.75
ULC growth in construction	11.41	6.94	1.97	0.40	6.09	-0.41
ULC growth in market services	2.25	-0.42	-0.65	-2.28	1.55	2.23
Business environment	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Time needed to enforce contracts[3] (days)	476	483	483	483	483	483
Time needed to start a business[3] (days)	16.0	16.0	16.0	7.0	7.0	7.0
Outcome of applications by SMEs for bank loans[4]	:	0.57	0.71	0.38	0.36	0.45
Research and innovation	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
R&D intensity	3.28	3.30	3.14	3.26	3.27	3.33
General government expenditure on education as % of GDP	6.50	6.60	6.60	6.50	6.60	:
Employed people with tertiary education and/or people employed in science and technology as % of total employment	51	52	54	55	56	57
Population having completed tertiary education[5]	30	31	33	34	35	36
Young people with upper secondary education[6]	86	86	87	87	87	86
Trade balance of high technology products as % of GDP	-0.14	0.09	-0.07	-0.11	-0.08	-0.21
Product and service markets and competition				**2003**	**2008**	**2013**
OECD product market regulation (PMR)[7], overall				1.50	1.61	1.52
OECD PMR[7], retail				0.72	0.60	0.60
OECD PMR[7], professional services				0.77	0.55	0.55
OECD PMR[7], network industries[8]				2.30	2.20	1.87

(1) Value added in constant prices divided by the number of persons employed.
(2) Compensation of employees in current prices divided by value added in constant prices.
(3) The methodologies, including the assumptions, for this indicator are shown in detail here: http://www.doingbusiness.org/methodology.
(4) Average of the answer to question Q7B_a. "[Bank loan]: If you applied and tried to negotiate for this type of financing over the past six months, what was the outcome?". Answers were codified as follows: zero if received everything, one if received 75% and above, two if received below 75%, three if refused or rejected and treated as missing values if the application is still pending or don't know.
(5) Percentage population aged 15-64 having completed tertiary education.
(6) Percentage population aged 20-24 having attained at least upper secondary education.
(7) Index: 0 = not regulated; 6 = most regulated. The methodologies of the OECD product market regulation indicators are shown in detail here: http://www.oecd.org/competition/reform/indicatorsofproductmarketregulationhomepage.htm
(8) Aggregate OECD indicators of regulation in energy, transport and communications (ETCR).
Source: European Commission; World Bank — Doing Business (for enforcing contracts and time to start a business); OECD (for the product market regulation indicators); SAFE (for outcome of SMEs' applications for bank loans).

Table C.6: **Green growth**

Green growth performance		2012	2013	2014	2015	2016	2017
Macroeconomic							
Energy intensity	kgoe / €	0.13	0.13	0.12	0.11	0.12	0.11
Carbon intensity	kg / €	0.15	0.14	0.14	0.13	0.13	-
Resource intensity (reciprocal of resource productivity)	kg / €	0.56	0.57	0.56	0.54	0.53	0.54
Waste intensity	kg / €	0.41	-	0.43	-	0.34	-
Energy balance of trade	% GDP	-1.7	-1.5	-1.3	-0.9	-0.8	-0.9
Weighting of energy in HICP	%	11.68	11.01	10.69	9.64	8.66	8.81
Difference between energy price change and inflation	%	-3.9	-0.4	-2.5	-4.1	1.4	2.2
Real unit of energy cost	% of value added	12.0	11.1	10.3	10.5	10.8	-
Ratio of environmental taxes to labour taxes	ratio	0.10	0.09	0.09	0.09	0.09	-
Environmental taxes	% GDP	2.4	2.4	2.2	2.2	2.2	2.2
Sectoral							
Industry energy intensity	kgoe / €	0.12	0.12	0.12	0.12	0.12	-
Real unit energy cost for manufacturing industry excl. refining	% of value added	13.9	13.6	12.7	13.1	13.5	-
Share of energy-intensive industries in the economy	% GDP	9.10	8.56	8.47	8.12	8.00	-
Electricity prices for medium-sized industrial users	€ / kWh	0.08	0.08	0.07	0.06	0.06	0.06
Gas prices for medium-sized industrial users	€ / kWh	0.05	0.06	0.05	0.04	0.04	0.04
Public R&D for energy	% GDP	0.04	0.03	0.04	0.03	0.04	0.03
Public R&D for environmental protection	% GDP	0.02	0.02	0.02	0.01	0.01	0.01
Municipal waste recycling rate	%	47.3	48.7	49.9	48.0	48.9	46.8
Share of GHG emissions covered by ETS*	%	34.7	36.3	35.9	32.9	37.7	-
Transport energy intensity	kgoe / €	0.42	0.42	0.42	0.41	0.43	0.45
Transport carbon intensity	kg / €	0.95	0.92	0.90	0.87	0.82	-
Security of energy supply							
Energy import dependency	%	29.8	32.5	31.9	28.9	31.9	26.4
Aggregated supplier concentration index	HHI	16.3	16.6	21.8	20.4	21.9	-
Diversification of energy mix	HHI	0.32	0.30	0.32	0.34	0.31	0.33

All macro intensity indicators are expressed as a ratio of a physical quantity to GDP (in 2010 prices)

Energy intensity: gross inland energy consumption (Europe 2020-2030)(in kgoe) divided by GDP (in EUR)

Carbon intensity: greenhouse gas emissions (in kg CO2 equivalents) divided by GDP (in EUR)

Resource intensity: domestic material consumption (in kg) divided by GDP (in EUR)

Waste intensity: waste (in kg) divided by GDP (in EUR)

Energy balance of trade: the balance of energy exports and imports, expressed as % of GDP

Weighting of energy in HICP: the proportion of 'energy' items in the consumption basket used for the construction of the HICP

Difference between energy price change and inflation: energy component of HICP, and total HICP inflation (annual % change)

Real unit energy cost: real energy costs as % of total value added for the economy

Industry energy intensity: final energy use in industry (in kgoe) divided by gross value added of industry, including construction (in 2010 EUR)

Real unit energy costs for manufacturing industry excluding refining : real costs as % of value added for manufacturing sectors

Share of energy-intensive industries in the economy: share of gross value added of the energy-intensive industries in GDP

Electricity and gas prices for medium-sized industrial users: consumption band 500–20 00MWh and 10 000–100 000 GJ; figures excl. VAT.

Recycling rate of municipal waste: ratio of recycled and composted municipal waste to total municipal waste

Public R&D for energy or for the environment: government spending on R&D for these categories as % of GDP

Proportion of GHG emissions covered by EU emissions trading system (ETS) (excluding aviation): based on GHG emissions (excl land use, land use change and forestry) as reported by Member States to the European Environment Agency.

Transport energy intensity: final energy use in transport sector including international aviation, (in kgoe) divided by transport industry gross value added (in 2010 EUR)

Transport carbon intensity: GHG emissions in transport sector divided by gross value added of the transport activities

Energy import dependency: net energy imports divided by gross inland energy consumption plus consumption of international maritime bunkers

Aggregated supplier concentration index: Herfindahl-Hirschman index for net imports of crude oil and NGL, natural gas and hard coal. Smaller values indicate larger diversification and hence lower risk.

Diversification of the energy mix: Herfindahl-Hirschman index of the main energy products in the gross inland consumption of energy

* European Commission and European Environment Agency

Source: European Commission and European Environment Agency (Share of GHG emissions covered by ETS); European Commission (Environmental taxes over labour taxes); Eurostat (all other indicators)

ANNEX D: INVESTMENT GUIDANCE ON COHESION POLICY FUNDING 2021-2027 FOR SWEDEN

Building on the Commission proposal for the next Multi-Annual Financial Framework for the period 2021-2027 of 2 May 2018 (COM (2018) 321), this Annex D([55]) presents the preliminary Commission services views on priority investment areas and framework conditions for effective delivery for the 2021-2027 Cohesion Policy. These priority investment areas are derived from the broader context of investment bottlenecks, investment needs and regional disparities assessed in the report. This Annex provides the basis for a dialogue between Sweden and the Commission services in view of the programming of the cohesion policy funds (European Regional Development Fund and European Social Fund Plus).

Policy Objective 1: A Smarter Europe – Innovative and smart industrial transformation

In order to reach its ambitious national target for research and development expenditure of 4% of GDP and secure its position as European leader in innovation, Sweden needs to make a continuous effort to broaden the innovation base and maintain high level of investments in research and development. Regional differences in terms of innovation performance and competitiveness are accentuated. Investment needs([56]) have therefore been identified to further **enhance research and innovation capacities and the uptake of advanced technologies**, and in particular to:

- encourage the development and implementation of tailor-made smart specialisation systems at regional (programme) and national level. Promote further international and regional cooperation to exchange knowledge and achieve critical mass for the specialisations; thereby particularly focusing on the 3 middle-income regions (Småland and the Islands, Central Norrland and North Middle Sweden) and the Northern Sparsely Populated Areas in order to support them to catch up and scale up their investments. Promote the coordination between the smart specialisation strategies and national Innovation Partnership Programmes and other relevant strategies (notably the EU strategy for the Baltic Sea Region) and other (non-) European countries;
- further encourage regional growth processes and promote research and innovation capacities, supporting existing cluster and network structures, strengthening the business competitiveness and the business uptake of advanced technologies; thereby contributing to diminishing the competitiveness and innovation gaps particularly in the middle-income regions and Northern Sparsely Populated Areas;
- strengthen links, cooperation and knowledge transfer between academia and business and promote a more active involvement of universities in projects. Support marketable and market-oriented research and development and raise business awareness of upcoming scientific developments. Support the establishment of living labs and test-beds and eco-systems that bring together the demand and supply side ensuring a better uptake of innovation in small and medium-sized enterprises;
- support pilot lines, early product validation, technology transfer and the building of capacities in the development and provision of key digital technologies, artificial intelligence, cybersecurity, high performance computing and in particular in the area of digital skills and deep tech.

The potential of Swedish small and medium-sized enterprises and innovative start-ups is not fully exploited, there is a low proportion of SMEs with new-to-market/new-to-firm innovations and the proportion of Swedish female entrepreneurs is among the lowest in the OECD area. Investment needs in research and innovation are identified to further **enhance growth and competiveness of small and medium-sized enterprises**, and in particular to:

- promote continuous Entrepreneurial Discovery Processes through strengthened entrepreneurial ecosystems and the sustained engagement of small and medium-sized enterprises in these processes; support Project Development Labs;
- encourage female entrepreneurship including in the Northern Sparsely Populated Areas in order to reach the full potential of the economy and support small and medium-sized enterprises that employ

([55]) This Annex is to be considered in conjunction with the EC Proposal for a Regulation of the European Parliament and of the Council on the European Regional Development Fund and on the Cohesion Fund COM(2018) 372 and the EC Proposal for a Regulation of the European Parliament and of the Council on the European Social Fund Plus COM(2018) 382, in particular as regards the requirements for thematic concentration and urban earmarking outlined in these proposals.

([56]) The intensity of needs is classified in three categories in a descending order - high priority needs, priority needs, needs.

third-country nationals and other vulnerable groups for the cause of integration;
- promote the creation of new firms, growth of start-ups/scale-ups, accelerators, as well as new business models and increase the proportion of small and medium-sized enterprises with new-to-market and new-to-firm innovations by giving support to product, organisational and marketing innovations. Stimulate the uptake on enabling technologies, eco innovation and green- and blue-tech sector technology, as well as the acceleration of market access and internationalisation, especially in Northern Sparsely Populated Areas;
- support the development of regional, interregional, and international networks to disseminate knowledge, create partnerships, and promote further innovation and global value chains.

Despite the fact that Sweden is characterised by a highly skilled labour force, it lacks Informations and Communications Technology specialists. Employment in high-tech sectors is above EU level only in the three large-city-regions; the skills gap figures among the top barriers to growth for companies. Therefore, investment needs have been identified to **develop skills for smart specialisation, industrial transition and entrepreneurship**, in synergy with lifelong learning actions under Policy Objective 4; and in particular to:
- promote innovation management in small and medium-sized enterprises and support vocational education and training and reskilling in smart specialization areas within firms; building the necessary administrative capacity, including in smart cities in cooperation with peers in the Baltic Sea Region, with a particular attention to digital skills and the need to address industrial transition;
- promote skills development for higher education and research institutions to increase the commercial viability and market relevance and uptake of their research projects as well as their capacities to take part in interactive and open innovation processes, including across borders;
- strengthen the capacity of small and medium-sized enterprises to adapt to digital/technological transformation and increase their Informations and Communications Technology uptake, support the automation of work/processes;
- encourage the development of novel applications and the diffusion of digital and other key enabling technologies through extra-regional networks of digital innovation hubs and living labs.

Policy Objective 4: A more social Europe – Implementing the European Pillar of Social Rights

Sweden's education system generally functions well but a sufficient response to current and future labour market needs must be ensured given increasing skills shortages, including as regards advanced digital skills. Investment needs have therefore been identified **to improve the effectiveness and labour market relevance of education and training; to promote lifelong learning, notably flexible upskilling and reskilling, taking into account digital skills, better anticipate change and new skills requirements, facilitate career transitions and promote professional mobility**, and in particular to:
- enhance the labour market relevance of higher education programmes, with synergies with the Erasmus programme;
- build flexible pathways between sectors of education and training and between education and work;
- build vocational education and training providers' capacity to respond to the needs of employers and local innovation ecosystems, in synergy with actions under Policy Objective 1 and smart specialisation strategies;
- implement comprehensive lifelong learning strategies;
- upgrade adult population's basic skills and create new opportunities for low-skilled adults;
- support innovative policy actions and experimentation.

Differences in educational outcomes and employment between foreign-born and native students persist. Investment needs have therefore been identified **to promote the socio-economic integration of third country nationals, including through inclusive education and training; to foster active inclusion and to improve employability of persons at a disadvantage,** particularly through:
- measures to improve access to, and inclusiveness of, education and training, and basic skill attainment of all students;
- measures to prevent early school leaving;

• development and deployment of innovative and effective teaching methods and technologies that deliver high-quality educational content tailored to disadvantaged learners; • integrated pathways to employment, notably for persons with disabilities; • awareness-raising and engagement with local communities, civil society and social partners to fight discrimination; • social innovation and social experimentation in the field.
Factors for effective delivery of Cohesion policy
• administrative capacity of authorities to support and implement smart specialisation strategies; • broader use of financial instruments and/or contributions to Sweden's compartment under InvestEU for revenue-generating and cost-saving activities; • build on the lessons learnt in North Middle Sweden during the implementation of the Commission pilot project on industrial transition, in particular about the impact of new technologies, decarbonisation and the promotion of inclusive growth; • social dialogue and social partners' capacity.

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